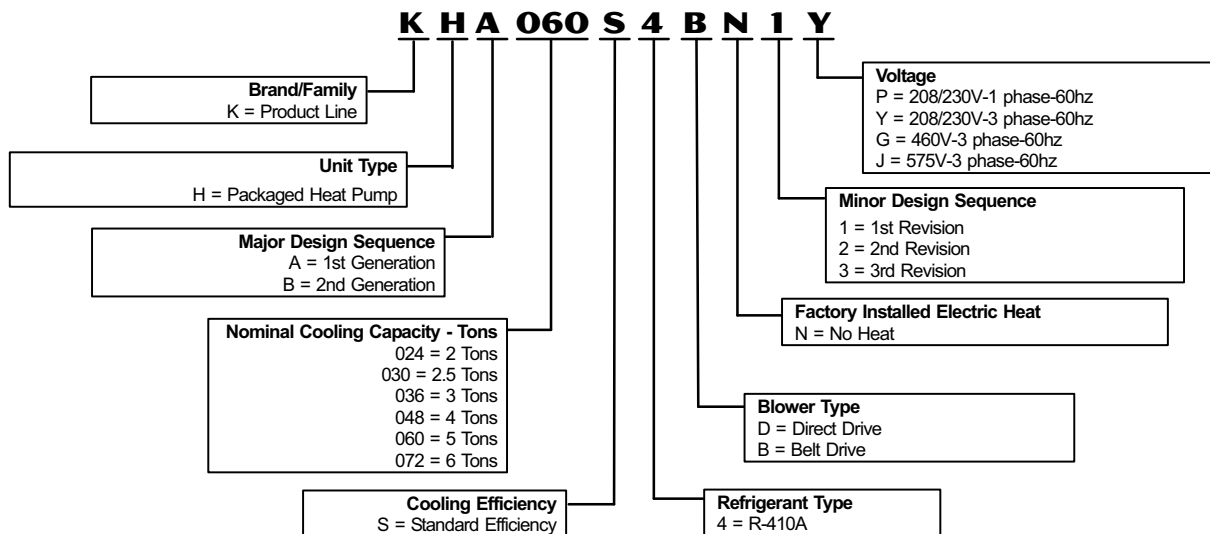




**ASHRAE 90.1
COMPLIANT**

2 to 6 Tons
Net Cooling Capacity - 22,800 to 69,000 Btuh
Net Heating Capacity - 24,000 to 70,000 Btuh
Optional Electric Heat - 7.5 to 30 kW

MODEL NUMBER IDENTIFICATION



CONTENTS

Accessory Air Resistance	Page 22
Blower Performance	Pages 15-22
Cooling/Heating Ratings	Pages 12-13
Dimensions	Pages 30-37
Electrical/Electric Heat Data	Pages 23-26
Electric Heat Capacities	Page 28
Features and Benefits	Pages 2-4
Model Number Identification	Page 1
Options / Accessories	Pages 6-8
Specifications	Pages 9-10
Sound Data	Page 23
Unit Clearances	Page 28
Weights	Page 29

FEATURES AND BENEFITS

APPROVALS

ETL and CSA listed.
Efficiency rating verified by CSA.
Components bonded for grounding to meet safety standards for servicing required by UL, ULC and National and Canadian Electrical Codes.
2 thru 5 ton models are certified in accordance with the USE certification program, which is based on AHRI Standard 210/240-2006.
6 ton models are certified in accordance with the ULE certification program, which is based on AHRI Standard 340/360-2007.
All models are ASHRAE 90.1 compliant ISO 9001 Registered Manufacturing Quality System.

WARRANTY

Limited five years on compressors.
Limited one year all other covered components.

CABINET

1 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.

Air-Flow Choice

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

2 Power Entry

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

3 Exterior Panels

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

4 Insulation

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

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

Access Panels

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

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, ASTM 1153 Standard Specification for Methyl Isobutyl Ketone.

5 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

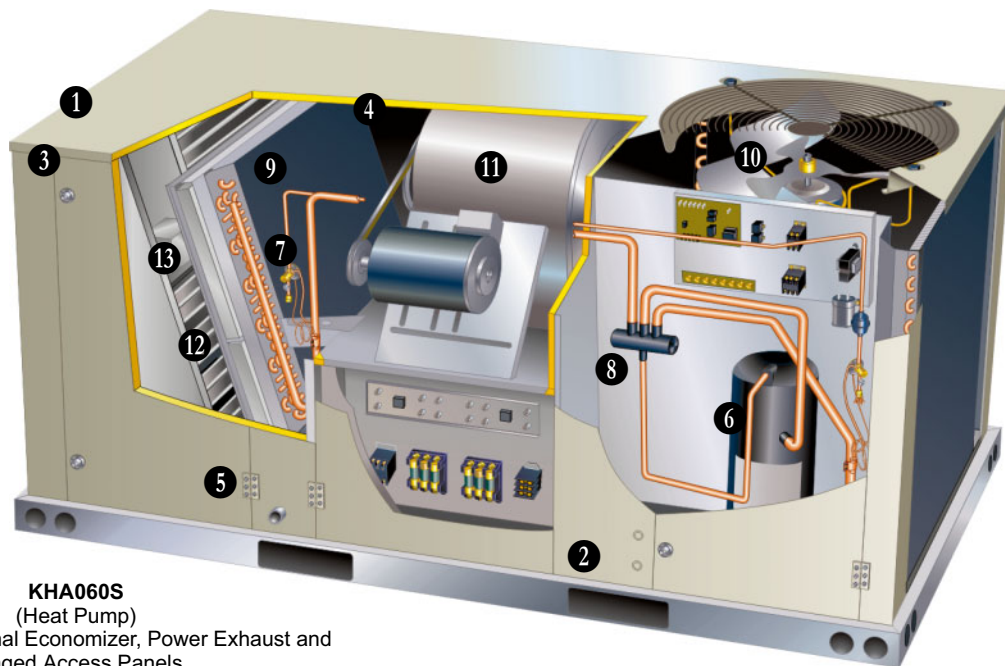
Coil Guards

Painted, galvanized steel wire guards to protect outdoor coil. Not used with Hail Guards.

Hail Guards

Constructed of heavy gauge steel, painted to match cabinet, helps protect outdoor coils from hail damage. Not used with Coil Guards.

FEATURES AND BENEFITS



KHA060S
(Heat Pump)

Shown With Optional Economizer, Power Exhaust and Hinged Access Panels

COOLING / HEATING SYSTEM

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

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

Refrigerant

Non-chlorine, ozone friendly R-410A.

Unit pre-charged with refrigerant. See Specification table.

6 Compressor

Resiliently mounted on rubber grommets for quiet operation. Scroll compressors for high performance, reliability and 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.

7 Check/Thermal Expansion Valves

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

8 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.

Defrost Control

Provides a defrost cycle, if needed, every 30 or 60 or 90 minutes (adjustable) of compressor "on" time at outdoor coil temperature below 35°F. Temperature switch mounted on outdoor coil liquid line terminates defrost 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.

9 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.

Outdoor Coil

Two independent formed coils allow separation for cleaning.

Condensate Drain Pan

Plastic pan, sloped to meet drainage requirements of ASHRAE 62.1. Side or bottom drain connections. Reversible to allow connection at back of unit.

10 Outdoor Coil Fan Motor

Thermal overload protected, totally enclosed, permanently lubricated sleeve (024, 030, 036 and 048 models) or ball bearings (060 and 072 models), shaft up, wire basket mount.

Outdoor Coil Fan

PVC coated fan guard furnished.

REQUIRED SELECTIONS

Cooling Capacity

Specify nominal cooling capacity of the unit.

OPTIONS/ACCESSORIES

Field Installed

Condensate Drain Trap

Field installed only. Available in copper or PVC.

Low Ambient Kit

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

FEATURES AND BENEFITS

CONTROLS

UNIT CONTROL

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

Heat/Cool Staging - Capable of up to 2 heat / 2 cool staging with a third party DDC control system or thermostat.

Low Voltage Terminal Block - Provides screw terminal connections for thermostat or controller wiring.

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

OPTIONS / ACCESSORIES

Field Installed

Dirty Filter Switch

Senses static pressure increase indicating dirty filter condition.

Smoke Detector

Photoelectric type, installed in supply or return air section.

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

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

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

Supply Air Blower

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

All belt drive motors have adjustable pulley for speed change.

Ordering Information

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

REQUIRED SELECTIONS

Supply Air Blower

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

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

INDOOR AIR QUALITY

Air Filters

Disposable 2 inch filters furnished as standard.

OPTIONS/ACCESSORIES

Field Installed

Healthy Climate® UVC Germicidal Lamps

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

Indoor Air Quality (CO₂) Sensor

Monitors CO₂ levels adjusts economizer dampers as needed for Demand Control Ventilation.

ELECTRICAL

REQUIRED SELECTIONS

Voltage Choice

Specify when ordering base unit.

OPTIONS/ACCESSORIES

Factory or Field Installed

GFI Service Outlets (2)

115v ground fault circuit interrupter (GFCI) type.

Field Installed

Disconnect Switch up to 150 Amp

Accessible from outside of unit, spring loaded weatherproof cover furnished. Main power to the unit is field connected to the disconnect which allows all power to be shut off for service. See Electrical/Electric Heat tables for ordering information, Pages 23-26.

Electric Heat

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

SERVICEABILITY

Designed to streamline general maintenance and decrease troubleshooting time.

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.

Blower Access

Supply air blower parts are located near the access door for easy servicing and adjustment.

Thermal Expansion Valves

Thermal expansion valves are located near the perimeter of the unit for easier access.

Removable element head allows change out of element and bulb without removing the TXV.

Coil Cleaning

Independently formed condenser coils allow separation for easier cleaning.

Compressor Compartment

Compressor is located near the perimeter of the unit for easier access. Compressor is isolated from the condenser air flow allowing system operation checks to be done without changing the air flow across the outdoor coils.

ECONOMIZER/OUTDOOR AIR/EXHAUST OPTIONS

Factory or Field Installed

12 Economizer, Down-Flow

Parallel gear-driven action return air and outdoor air dampers, plug-in connections to unit, nylon bearings, neoprene seals, 24-volt, fully-modulating, spring return motor, adjustable minimum damper position. Economizer includes barometric relief dampers.

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

Outdoor Air Hoods are included when economizer is factory installed and are furnished with economizer when ordered for field installation.

Choice of single (factory installed) or differential (optional) enthalpy or temperature economizer control is available.

Horizontal conversion kit available for field installation.

Single Enthalpy Control

Outdoor air enthalpy sensor enables economizer if the outdoor enthalpy is less than the setpoint of the board. Furnished with Economizer.

Field Installed

Outdoor Air Damper - Manual

Two sliding dampers provide 0 to 35% outdoor air, installs internal to unit. Includes Outdoor Air Hood.

Outdoor Air Damper Motorized Kit

Used to convert Manual Outdoor Air Dampers to motorized dampers. Kit includes linked mechanical dampers and spring return damper motor with plug-in connection.

Differential Enthalpy Control

An optional, return air, solid-state enthalpy sensor can be ordered extra for field installation. Allows the economizer control board to select between outdoor air or return air, whichever has lower enthalpy. Field installed.

Economizer Temperature Control - Single

An optional, solid-state temperature sensor can be ordered extra for field installation. Enables the economizer when the outdoor air temperature is below the configured setpoint.

Economizer Temperature Control - Differential

Order two single, temperature control kits. 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 temperature.

Horizontal Conversion Kit

Insulated panel covers the bottom return air opening on the unit base to convert down-flow economizer to horizontal air flow.

13 Power Exhaust Fan

Installs internal to unit for down-flow 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. Requires Economizer with Outdoor Air Hood. Fan is 16 in. diameter with 4 fan blades (T1PWRE10A) or 20 in. diameter with 5 blades (T1PWRE10N). Both include a 3/4 hp motor.

NOTE - Not available for 024 and 030 models.

CEILING DIFFUSERS

Ceiling Diffusers (Flush and Step-Down)

Aluminum grilles, large center grille, insulated diffuser box with flanges, hanging rings furnished, interior transition (even air flow), internally sealed (prevents recirculation), 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.

ROOF CURB

Roof Curb, Down-Flow

Nailer strip furnished, mates to unit, US National Roofing Contractors Approved, shipped knocked down. Available in 8, 14, 18, and 24 inch heights.

Cliplock curbs use interlocking tabs to fasten together. No tools required.

Hinged curb corners fasten together with furnished hinge pins.

Standard roof curb corners fasten together with furnished hardware.

NOTE - 072 models can be used on smaller 79-3/4 in. roof curbs (not full perimeter) with 15-3/4 in. overhang at condenser end of unit. See dimension drawing on page 36.

OPTIONS / ACCESSORIES

Item	Catalog No.	024	030	036	048	060	072
COOLING SYSTEM							
Condensate Drain Trap	PVC - LTACDKP03/07	37K69	x	x	x	x	x
	Copper - LTACDKC03/07	45K67	x	x	x	x	x
Low Ambient Kit	K1SNSR33AN1	41W33	x	x	x	x	x
Efficiency	Standard		○	○	○	○	○
Refrigerant Type	R-410A		○	○	○	○	○
BLOWER - SUPPLY AIR							
Motors	Direct Drive - 0.25 hp		○	○			
	Direct Drive - 0.5 hp				○	○	
	Belt Drive - 1.5 hp Standard Efficiency				○	○	○
	¹ Belt Drive - 2 hp Standard Efficiency				○	○	○
Drive Kits See Blower Data Tables for selection	Kit A01 - T1DRKT001-1 - 673-1010 rpm			○			
	Kit A02 - T1DRKT002-1 - 745-1117 rpm				○		
Drive Kits See Blower Data Tables for selection	Kit A03 - T1DRKT003-1 - 833-1250 rpm					○	
	Kit A04 - T1DRKT004-1 - 968-1340 rpm						○
	Kit A05 - T1DRKT005-1 - 897-1346 rpm			○			
	Kit A06 - T1DRKT006-1 - 1071-1429 rpm				○		
	Kit A07 - T1DRKT007-1 - 1212-1548 rpm					○	
	Kit A08 - T1DRKT008-1 - 1193-1591 rpm						○
CABINET							
Coil Guards	T1GARD20A-1	17W87	x	x	x	x	
	T1GARD20N-1	17W88					x
	K1GARD20AP1	53W21					x
Corrosion Protection			○	○	○	○	○
Hail Guards	T1GARD10A-1	17W89	x	x	x	x	
	T1GARD10N-1	17W90					x
	K1GARD10AP1	53W22					x
Hinged Access Panels			○	○	○	○	○
CONTROLS							
Dirty Filter Switch	COSWCH00AE-1	30K48	x	x	x	x	x
Smoke Detector - Supply/Return	T1SNSR41AN1	39W16	x	x	x	x	x
INDOOR AIR QUALITY							
Indoor Air Quality (CO₂) Sensors							
Sensor - white case CO ₂ display	C0SNSR50AS1L	77N39	x	x	x	x	x
Sensor - duct-mount, black case, no display	C0SNSR53AE1L	87N54	x	x	x	x	x
CO ₂ Sensor Duct Mounting Kit	C0MISC19AE1-	85L43	x	x	x	x	x
UVC Germicidal Lamps							
² Healthy Climate® UVC Light Kit (208/230v-1ph)	E1UVCL10AN1	50W90	x	x	x	x	x

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

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

○ - Configure to Order (Factory Installed)

ⓧ - Field Installed

¹ 2 hp blower motor is not available for 208/230V-1ph applications.

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

OPTIONS / ACCESSORIES

Item	Catalog No.	024	030	036	048	060	072
ECONOMIZER							
Economizer							
Economizer, Single Enthalpy Control Includes Outdoor Air Hood and Barometric Relief Dampers with Hood	T1ECON30A-1	36W96	⊗	⊗	⊗	⊗	
	T1ECON30N-1	36W97				⊗	⊗
Horizontal Economizer Conversion Kit	T1HECK00AN1	17W45	x	x	x	x	x
Economizer Controls							
Differential Enthalpy Sensor	T1SNSR60AN1	17W71	x	x	x	x	x
Single Temperature Control	TASEK10/15	76M37	x	x	x	x	x
Differential Temperature Control	Order 2 - TASEK10/15	76M37	x	x	x	x	x
ELECTRICAL							
Disconnect	See Electrical/Electric Heat Tables for selection		x	x	x	x	x
Voltage 60 hz	208/230V - 1 phase		○	○	○	○	○
	208/230V - 3 phase				○	○	○
	460V - 3 phase				○	○	○
	575V - 3 phase				○	○	○
GFI Service Outlets	LTAGFIK10/15	74M70	x	x	x	x	x
ELECTRIC HEAT							
7.5 kW	208/230V-1ph - T1EH0075AN1P	14W32	x	x	x	x	
	208/230V-3ph - T1EH0075AN1Y	14W35			x	x	x
	460V-3ph - T1EH0075AN1G	14W39			x	x	x
	575V-3ph - T1EH0075AN1J	14W43			x	x	x
10 kW	208/230V-1ph - T1EH0100A1P	30W26	x	x			
15 kW	208/230V-1ph - T1EH0150AN1P	14W33			x	x	x
	208/230V-3ph - T1EH0150AN1Y	14W36			x	x	x
	460V-3ph - T1EH0150AN1G	14W40			x	x	x
	575V-3ph - T1EH0150AN1J	14W44			x	x	x
22.5 kW	208/230V-1ph - T1EH0225AN1P	14W34				x	
	208/230V-3ph - T1EH0225AN1Y	14W37				x	x
	460V-3ph - T1EH0225AN1G	14W41				x	x
	575V-3ph - T1EH0225AN1J	14W45				x	x
30 kW	208/230V-3ph - T1EH0300N-1Y	14W38					x
	460V-3ph - T1EH0300N-1G	14W42					x
	575V-3ph - T1EH0300N-1J	14W46					x

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

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

○ - Configure to Order (Factory Installed)

x - Field Installed.

OPTIONS / ACCESSORIES

			Catalog No.	024	030	036	048	060	072
Item									
OUTDOOR AIR									
Outdoor Air Dampers									
Damper Section - Manual, Includes Outdoor Air Hood	T1DAMP11A-1	16W88	x	x	x	x			
	T1DAMP11N-1	16W91						x	x
Damper Motorized Kit Order Manual Outdoor Air Damper Separately	T1DAMP21AN1	16W92	x	x	x	x	x	x	x
POWER EXHAUST FAN									
Standard Static	208/230V-1 or 3 ph - T1PWRE10A-1P	17W39			x	x			
	460V-3ph - T1PWRE10A-1G	17W40			x	x			
	575V-3ph - T1PWRE10A-1J	17W41			x	x			
	208/230V-1 or 3 ph - T1PWRE10N-1P	17W42						x	x
	460V-3ph - T1PWRE10N-1G	17W43						x	x
	575V-3ph - T1PWRE10N-1J	17W44						x	x
CEILING DIFFUSERS									
Step-Down - Order one	RTD9-65-R	27G87	x	x	x	x	x		
	RTD11-95	29G04							x
	(Canada Only) RTD11-95S	13K61							x
Flush - Order one	FD9-65-R	27G86	x	x	x	x	x		
	FD11-95	29G08							x
	(Canada Only) FD11-95S	13K56							x
Transitions (Supply and Return) - Order one	T1TRAN10AN1	17W53	x	x	x	x	x		
	T1TRAN20N-1	17W54							x
ROOF CURBS - DOWNFLOW									
Cliplock									
8 in. height	T1CURB23AN1	16W93	x	x	x	x	x	x	1 x
	K1CURB23AP1	52W20							x
14 in. height	T1CURB20AN1	16W94	x	x	x	x	x	x	1 x
	K1CURB20AP1	52W21							x
18 in. height	T1CURB21AN1	16W95	x	x	x	x	x	x	1 x
	K1CURB21AP1	52W22							x
24 in. height	T1CURB22AN1	16W96	x	x	x	x	x	x	1 x
	K1CURB22AP1	52W23							x
Hinged									
8 in. height	T1CURB30AN1	17W46	x	x	x	x	x	x	1 x
	K1CURB30AP1	52W17							x
18 in. height	T1CURB32AN1	17W47	x	x	x	x	x	x	1 x
	K1CURB32AP1	52W18							x
24 in. height	T1CURB33AN1	17W48	x	x	x	x	x	x	1 x
	K1CURB33AP1	52W19							x
Standard									
14 in. height	T1CURB10AN1	13W27	x	x	x	x	x	x	1 x
	K1CURB10AP1	52W24							x

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

X - Field Installed.

¹ 072 models will fit smaller roof curbs with overhang. See dimension drawing.

SPECIFICATIONS - DIRECT DRIVE BLOWER

2 - 4 TON

General Data		Nominal Tonnage	2 Ton	2.5 Ton	3 Ton	4 Ton
		Model No.	KHA024S4D	KHA030S4D	KHA036S4D	KHA048S4D
		Efficiency Type	Standard	Standard	Standard	Standard
Cooling Performance	Gross Cooling Capacity - Btuh		23,600	30,000	37,100	49,000
	¹ Net Cooling Capacity - Btuh		22,800	29,000	35,600	47,000
	AHRI Rated Air Flow - cfm		800	1000	1160	1600
	² Sound Rating Number (dB)		75	75	75	75
	Total Unit Power - kW		2.0	2.6	3.3	4.4
	¹ SEER (Btuh/Watt)		13.0	13.0	13.0	13.0
	¹ EER (Btuh/Watt)		11.2	11.3	10.9	10.7
Refrigerant	Type		R-410A	R-410A	R-410A	R-410A
	Charge Furnished		13 lbs. 0 oz.	13 lbs. 0 oz.	12 lbs. 8 oz.	13 lbs. 2 oz.
Heating Performance	Total High Heating Capacity - Btuh		24,000	29,200	36,400	48,000
	Total Unit Power - kW		2.1	2.5	3.0	4.0
	¹ COP		3.4	3.5	3.6	3.5
	¹ HSPF - Region IV (Region V)		7.7 (6.7)	7.7 (6.7)	7.7 (6.7)	7.7 (6.7)
	Total Low Heating Capacity - Btuh		14,400	17,600	22,000	29,500
	Total Unit Power - kW		1.8	2.3	2.8	3.6
	COP		2.3	2.3	2.3	2.4
Electric Heating Options		See Electrical/Electric Heat Tables Pages 23-26				
Compressor Type (no.)			Scroll (1)	Scroll (1)	Scroll (1)	Scroll (1)
Outdoor Coil	Net face area - sq. ft.		15.6	15.6	15.6	15.6
	Tube diameter - in.		3/8	3/8	3/8	3/8
	Number of rows		2.0	2.0	2.0	2.0
	Fins / inch		20	20	20	20
Outdoor Coil Fan	Motor HP		1/4	1/4	1/4	1/4
	Motor rpm		825	825	825	825
	Total motor watts		250	250	250	250
	Diameter - in. / No. of blades		24 - 3	24 - 3	24 - 3	24 - 3
	Total air volume - cfm		3300	3300	3300	3300
Indoor Coil	Net face area - sq. ft.		7.78	7.78	7.78	7.78
	Tube diameter - in.		3/8	3/8	3/8	3/8
	Number of rows		3	3	3	3
	Fins / inch		14	14	14	14
	Drain Connection (no. and size) - in.		(1) 3/4 NPT	(1) 3/4 NPT	(1) 3/4 NPT	(1) 3/4 NPT
Expansion device type		Balanced Port Thermostatic Expansion Valve, removeable power head				
Indoor Blower	Nominal Motor HP		.25	.25	.5	.5
	Wheel nom. diameter x width - in.		10 x 10	10 x 10	10 x 10	10 x 10
Filters	Type	Disposable			Disposable	
	Number and size - in.	(4) 16 x 20 x 2			(4) 16 x 20 x 2	
Electrical Characteristics - 60 hz		208/230V - 1 phase			208/230V 1 phase	208/230V 1 phase
					208/230V, 460V & 575V 3 phase	208/230V, 460V & 575V 3 phase

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

¹ Certified in accordance with the USE certification program, which is based on AHRI Standard 210/240.

Cooling Ratings - 95°F outdoor air temperature and 80°F db/67°F wb entering indoor coil air.

High Temperature Heating Ratings - 47°F db/43°F wb outdoor air temperature and 70°F entering indoor coil air.

Low Temperature Heating Ratings - 17°F db/15°F wb outdoor air temperature and 70°F entering indoor coil air.

² Sound Rating Number rated in accordance with test conditions included in AHRI Standard 270.

SPECIFICATIONS - BELT DRIVE BLOWER
3 - 6 TON

General Data		Nominal Tonnage	3 Ton	4 Ton	5 Ton	6 Ton	
		Model No.	KHA036S4B	KHA048S4B	KHA060S4B	KHA072S4B	
		Efficiency Type	Standard	Standard	Standard	Standard	
Cooling Performance	Gross Cooling Capacity - Btuh		37,100	49,000	61,500	71,300	
	¹ Net Cooling Capacity - Btuh		¹ 35,600	¹ 47,000	¹ 59,000	² 69,000	
	AHRI Rated Air Flow - cfm		1160	1600	1985	2060	
	⁴ Sound Rating Number (dB)		75	75	82	83	
	Total Unit Power - kW		3.3	4.4	5.4	6.3	
	¹ SEER (Btuh/Watt)		13.0	13.0	13.0	---	
	³ IEER (Btuh/Watt)		---	---	---	11.2	
	EER (Btuh/Watt)		¹ 10.9	¹ 10.7	¹ 10.9	² 11.0	
Refrigerant	Type		R-410A	R-410A	R-410A	R-410A	
	Charge Furnished		12 lbs. 8 oz.	13 lbs. 2 oz.	16 lbs. 0 oz.	20 lbs. 8 oz.	
Heating Performance	Total High Heating Capacity - Btuh		36,400	48,000	60,500	70,000	
	Total Unit Power - kW		3.0	4.0	4.9	6.2	
	¹ COP		3.6	3.5	3.6	3.3	
	HSPF - Region IV (Region V)		7.7 (6.7)	7.7 (6.7)	7.7 (6.7)	---	
	Total Low Heating Capacity - Btuh		22,000	29,500	36,000	40,000	
	Total Unit Power - kW		2.8	3.6	4.5	5.7	
	¹ COP		2.3	2.4	2.4	2.25	
Electric Heating Options			See Electrical/Electric Heat Tables Pages 23-26				
Compressor Type (no.)			Scroll (1)	Scroll (1)	Scroll (1)	Scroll (1)	
Outdoor Coil	Net face area - sq. ft.		15.6	15.6	19.27	28.00	
	Tube diameter - in.		3/8	3/8	3/8	3/8	
	Number of rows		2	2	2	2	
	Fins / inch		20	20	20	20	
Outdoor Coil Fan	Motor HP		1/4	1/4	1/3	1/2	
	Motor rpm		825	825	1075	1075	
	Total motor watts		250	250	405	680	
	Diameter - in. / No. of blades		24 - 3	24 - 3	24 - 3	24 - 4	
	Total air volume - cfm		3300	3300	4800	5735	
Indoor Coil	Net face area - sq. ft.		7.78	7.78	9.7	9.7	
	Tube diameter - in.		3/8	3/8	3/8	3/8	
	Number of rows		3	3	4	4	
	Fins / inch		14	14	14	14	
	Drain Connection (no. and size) - in.		(1) 3/4 NPT	(1) 3/4 NPT	(1) 3/4 NPT	(1) 3/4 NPT	
	Expansion device type		Balanced Port Thermostatic Expansion Valve, removeable power head				
⁵ Indoor Blower & Drive Selection	Nominal Motor HP		1.5 hp, ⁶ 2 hp		1.5 hp, ⁶ 2 hp	1.5 hp, 2 hp	
	Maximum Usable Motor HP		1.72 hp, 2.3 hp		1.72 hp, 2.3 hp	1.72 hp, 2.3 hp	
	Available Drive Kits	A01		A02		A03	A04
		673 - 1010 rpm		745 - 1117 rpm		833 - 1250 rpm	968 - 1340 rpm
		A05 897 - 1346 rpm		A06 1071 - 1429 rpm		A07 1212 - 1548 rpm	A08 1193 - 1591 rpm
Wheel nom. diameter x width - in.		10 x 10	10 x 10	10 x 10	10 x 10		
Filters	Type		Disposable		Disposable		
	Number and size - in.		(4) 16 x 20 x 2		(4) 20 x 20 x 2		
Electrical Characteristics - 60 hz			208/230V 1 phase	208/230V 1 phase	208/230V 1 phase	208/230V, 460V & 575V 3 phase	
			208/230V, 460V & 575V 3 phase	208/230V, 460V & 575V 3 phase	208/230V, 460V & 575V 3 phase		

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

¹ Certified in accordance with the USE certification program, which is based on AHRI Standard 210/240 or ² 340/360.

Cooling Ratings - 95°F outdoor air temperature and 80°F db/67°F wb entering indoor coil air.

High Temperature Heating Ratings - 47°F db/43°F wb outdoor air temperature and 70°F entering indoor coil air.

Low Temperature Heating Ratings - 17°F db/15°F wb outdoor air temperature and 70°F entering indoor coil air.

³ Integrated Energy Efficiency Ratio certified and tested according to AHRI Standard 210/240.

⁴ Sound Rating Number rated in accordance with test conditions included in AHRI Standard 270.

⁵ Using total air volume and system static pressure requirements determine from blower performance tables rpm and motor hp required. Maximum usable hp of motors furnished are shown. In Canada, nominal motor hp is also maximum usable motor hp. If motors of comparable hp are used, be sure to keep within the service factor limitations outlined on the motor nameplate.

⁶ 2 hp blower motor is not available for 208/230V-1phase applications.

COOLING / HEATING RATINGS

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

2 TON STANDARD EFFICIENCY - COOLING CAPACITY

KHA024S4

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
			kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	640	300	22.4	6.6	1.36	.74	.87	1.00	21.2	6.2	1.56	.75	.90	1.00	20.0	5.9	1.79	.76	.92	1.00	18.7	5.5	2.04	.79	.96	1.00
	800	380	23.3	6.8	1.35	.79	.96	1.00	22.1	6.5	1.56	.81	.98	1.00	20.9	6.1	1.79	.84	1.00	1.00	19.7	5.8	2.04	.87	1.00	1.00
	960	455	24.2	7.1	1.36	.85	1.00	1.00	23.1	6.8	1.56	.87	1.00	1.00	21.9	6.4	1.79	.90	1.00	1.00	20.7	6.1	2.04	.94	1.00	1.00
67°F (19°C)	640	300	24.0	7.0	1.36	.57	.70	.84	22.7	6.7	1.56	.58	.72	.86	21.4	6.3	1.79	.60	.74	.89	20.0	5.9	2.04	.61	.76	.92
	800	380	24.9	7.3	1.36	.61	.76	.92	23.6	6.9	1.56	.62	.79	.94	22.2	6.5	1.79	.64	.81	.98	20.7	6.1	2.05	.65	.84	1.00
	960	455	25.5	7.5	1.36	.64	.83	.99	24.2	7.1	1.57	.66	.85	1.00	22.7	6.7	1.79	.68	.88	1.00	21.1	6.2	2.05	.70	.92	1.00
71°F (22°C)	640	300	25.7	7.5	1.36	.43	.56	.68	24.4	7.2	1.57	.43	.56	.69	23.0	6.7	1.80	.44	.58	.71	21.5	6.3	2.05	.44	.59	.74
	800	380	26.6	7.8	1.36	.44	.59	.74	25.2	7.4	1.57	.45	.60	.76	23.7	6.9	1.80	.45	.62	.79	22.1	6.5	2.06	.46	.64	.82
	960	455	27.2	8.0	1.36	.46	.63	.80	25.7	7.5	1.57	.46	.65	.83	24.2	7.1	1.80	.47	.67	.86	22.5	6.6	2.06	.48	.69	.90

2.5 TON STANDARD EFFICIENCY - COOLING CAPACITY

KHA030S4

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
			kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	800	380	28.4	8.3	1.76	.72	.86	.99	27.1	7.9	2.01	.73	.88	1.00	25.6	7.5	2.29	.75	.91	1.00	24.0	7.0	2.61	.77	.94	1.00
	1000	470	29.6	8.7	1.77	.78	.94	1.00	28.2	8.3	2.01	.79	.97	1.00	26.8	7.9	2.29	.82	.99	1.00	25.2	7.4	2.61	.85	1.00	1.00
	1200	565	30.7	9.0	1.77	.84	1.00	1.00	29.4	8.6	2.02	.86	1.00	1.00	28.0	8.2	2.29	.89	1.00	1.00	26.5	7.8	2.61	.92	1.00	1.00
67°F (19°C)	800	380	30.4	8.9	1.77	.56	.69	.82	29.0	8.5	2.01	.57	.70	.84	27.4	8.0	2.29	.58	.72	.87	25.6	7.5	2.61	.59	.75	.91
	1000	470	31.5	9.2	1.78	.60	.75	.91	30.0	8.8	2.02	.61	.77	.93	28.3	8.3	2.29	.62	.79	.97	26.5	7.8	2.61	.64	.82	1.00
	1200	565	32.3	9.5	1.78	.63	.81	.98	30.7	9.0	2.02	.64	.84	1.00	28.9	8.5	2.30	.66	.87	1.00	27.1	7.9	2.62	.68	.90	1.00
71°F (22°C)	800	380	32.6	9.6	1.78	.42	.54	.67	31.0	9.1	2.02	.42	.55	.68	29.3	8.6	2.30	.43	.56	.70	27.5	8.1	2.61	.43	.58	.72
	1000	470	33.7	9.9	1.79	.43	.58	.73	32.0	9.4	2.03	.44	.59	.74	30.2	8.9	2.30	.44	.61	.77	28.3	8.3	2.62	.45	.62	.80
	1200	565	34.4	10.1	1.79	.45	.62	.79	32.7	9.6	2.04	.45	.63	.81	30.8	9.0	2.31	.46	.65	.84	28.8	8.4	2.62	.47	.67	.87

2 TON STANDARD EFFICIENCY - HEATING CAPACITY

KHA024S4

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil														
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-26°C)		
		Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input			
kBtuh	kW	kBtuh		kW		kBtuh		kW		kBtuh		kW		kBtuh	kW	
640	300	29.2	8.6	1.85	22.3	6.5	1.67	15.1	4.4	1.49	10.3	3.0	1.33	5.0	1.5	1.01
800	380	29.8	8.7	1.72	22.9	6.7	1.54	15.7	4.6	1.36	10.9	3.2	1.20	5.6	1.6	.88
960	455	30.2	8.9	1.64	23.3	6.8	1.46	16.1	4.7	1.28	11.3	3.3	1.12	6.0	1.8	.80

2.5 TON STANDARD EFFICIENCY - HEATING CAPACITY

KHA030S4

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil														
		65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-26°C)		
		Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input			
kBtuh	kW	kBtuh		kW		kBtuh		kW		kBtuh		kW		kBtuh	kW	
800	380	35.6	10.4	2.15	27.3	8.0	2.00	18.6	5.4	1.85	12.7	3.7	1.68	6.3	1.8	1.26
1000	470	36.2	10.6	2.00	27.9	8.2	1.86	19.2	5.6	1.70	13.3	3.9	1.53	6.9	2.0	1.11
1200	565	36.6	10.7	1.91	28.3	8.3	1.77	19.6	5.7	1.61	13.7	4.0	1.44	7.3	2.1	1.02

2 TON STANDARD EFFICIENCY - KHA024S4 - HEATING PERFORMANCE at 800 cfm Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	1.72	29.8	8.7
60	16	1.68	28.2	8.3
55	13	1.64	26.6	7.8
50	10	1.60	25.0	7.3
47	8	1.57	24.0	7.0
45	7	1.54	22.9	6.7
40	4	1.47	20.2	5.9
35	2	1.39	17.4	5.1
30	-1	1.38	16.6	4.9
25	-4	1.36	15.7	4.6
20	-7	1.34	14.9	4.4
17	-8	1.33	14.4	4.2
15	-9	1.32	13.8	4.0
10	-12	1.28	12.2	3.6
5	-15	1.20	10.9	3.2
0	-18	1.12	9.5	2.8
-5	-21	1.04	8.2	2.4
-10	-23	.96	6.9	2.0
-15	-26	.88	5.6	1.6
-20	-29	.80	4.3	1.3

2.5 TON STANDARD EFFICIENCY - KHA030S4 - HEATING PERFORMANCE at 1000 cfm Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	2.00	36.2	10.6
60	16	1.97	34.2	10.0
55	13	1.94	32.3	9.5
50	10	1.90	30.4	8.9
47	8	1.88	29.2	8.6
45	7	1.86	27.9	8.2
40	4	1.80	24.5	7.2
35	2	1.73	21.2	6.2
30	-1	1.72	20.2	5.9
25	-4	1.70	19.2	5.6
20	-7	1.69	18.2	5.3
17	-8	1.68	17.6	5.2
15	-9	1.67	16.8	4.9
10	-12	1.64	14.9	4.4
5	-15	1.53	13.3	3.9
0	-18	1.43	11.7	3.4
-5	-21	1.32	10.1	3.0
-10	-23	1.22	8.5	2.5
-15	-26	1.11	6.9	2.0
-20	-29	1.01	5.3	1.6

COOLING / HEATING RATINGS

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

3 TON STANDARD EFFICIENCY - COOLING CAPACITY

KHA036S4

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
			kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	960	455	35.2	10.3	2.26	.72	.86	.98	33.6	9.8	2.57	.74	.88	1.00	31.7	9.3	2.92	.75	.91	1.00	29.8	8.7	3.33	.78	.93	1.00
	1200	565	36.7	10.8	2.27	.78	.93	1.00	34.9	10.2	2.58	.80	.96	1.00	33.1	9.7	2.93	.82	.98	1.00	31.2	9.1	3.34	.85	1.00	1.00
	1440	680	37.9	11.1	2.28	.83	.99	1.00	36.3	10.6	2.59	.86	1.00	1.00	34.6	10.1	2.94	.88	1.00	1.00	32.7	9.6	3.34	.91	1.00	1.00
67°F (19°C)	960	455	37.6	11.0	2.28	.57	.70	.82	35.8	10.5	2.58	.57	.71	.84	33.9	9.9	2.93	.58	.73	.87	31.8	9.3	3.34	.60	.75	.90
	1200	565	39.0	11.4	2.29	.60	.75	.90	37.1	10.9	2.59	.61	.77	.92	35.0	10.3	2.94	.62	.79	.95	32.8	9.6	3.35	.64	.82	.98
	1440	680	39.9	11.7	2.29	.63	.81	.97	37.9	11.1	2.60	.65	.83	.99	35.8	10.5	2.95	.66	.86	1.00	33.5	9.8	3.36	.68	.89	1.00
71°F (22°C)	960	455	40.2	11.8	2.30	.43	.55	.67	38.3	11.2	2.61	.43	.56	.68	36.3	10.6	2.96	.43	.57	.70	34.0	10.0	3.36	.44	.58	.73
	1200	565	41.5	12.2	2.31	.44	.58	.73	39.5	11.6	2.62	.44	.59	.75	37.4	11.0	2.97	.45	.61	.77	35.0	10.3	3.37	.45	.63	.80
	1440	680	42.4	12.4	2.31	.45	.62	.79	40.3	11.8	2.62	.46	.64	.81	38.1	11.2	2.98	.46	.65	.84	35.6	10.4	3.38	.47	.67	.87

4 TON STANDARD EFFICIENCY - COOLING CAPACITY

KHA048S4

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
			kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1280	605	47.0	13.8	3.08	.70	.84	.99	44.7	13.1	3.51	.71	.87	1.00	42.3	12.4	3.98	.73	.90	1.00	39.7	11.6	4.53	.75	.93	1.00
	1600	755	48.8	14.3	3.09	.75	.93	1.00	46.4	13.6	3.53	.78	.96	1.00	44.0	12.9	4.00	.80	.98	1.00	41.5	12.2	4.54	.83	1.00	1.00
	1920	905	50.5	14.8	3.09	.82	.99	1.00	48.3	14.2	3.53	.84	1.00	1.00	45.9	13.5	4.02	.87	1.00	1.00	43.3	12.7	4.57	.91	1.00	1.00
67°F (19°C)	1280	605	50.1	14.7	3.09	.55	.67	.81	47.5	13.9	3.54	.56	.69	.83	45.0	13.2	4.01	.57	.71	.86	42.1	12.3	4.55	.58	.73	.90
	1600	755	51.7	15.2	3.10	.58	.73	.89	49.0	14.4	3.55	.59	.75	.92	46.3	13.6	4.03	.60	.78	.95	43.4	12.7	4.57	.62	.81	.99
	1920	905	52.9	15.5	3.11	.61	.79	.97	50.1	14.7	3.56	.63	.82	.99	47.3	13.9	4.04	.64	.85	1.00	44.3	13.0	4.59	.66	.88	1.00
71°F (22°C)	1280	605	53.4	15.6	3.11	.41	.53	.65	50.7	14.9	3.56	.41	.54	.67	47.9	14.0	4.05	.42	.55	.69	45.0	13.2	4.59	.42	.56	.71
	1600	755	55.0	16.1	3.11	.42	.57	.71	52.2	15.3	3.57	.42	.58	.73	49.2	14.4	4.07	.43	.59	.75	46.1	13.5	4.61	.44	.61	.78
	1920	905	56.1	16.4	3.12	.43	.60	.77	53.1	15.6	3.58	.44	.62	.79	50.1	14.7	4.08	.45	.63	.83	46.8	13.7	4.62	.46	.66	.86

3 TON STANDARD EFFICIENCY - HEATING CAPACITY

KHA036S4

Indoor Coil Air Volume 70°F db (21°C db)	Air Volume		Air Temperature Entering Outdoor Coil														
			65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-26°C)		
			Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input			
960	455	44.3	13.0		2.62		33.6		9.8		2.44		22.2		6.5	2.26	15.7
1200	565	45.3	13.3	2.45	34.6	10.1	2.27	23.2	6.8	2.09	16.7	4.9	1.88	8.7	2.5	1.37	
1440	680	46.1	13.5	2.34	35.4	10.4	2.17	24.0	7.0	1.98	17.5	5.1	1.77	9.5	2.8	1.26	

4 TON STANDARD EFFICIENCY - HEATING CAPACITY

KHA048S4

Indoor Coil Air Volume 70°F db (21°C db)	Air Volume		Air Temperature Entering Outdoor Coil														
			65°F (18°C)			45°F (7°C)			25°F (-4°C)			5°F (-15°C)			-15°F (-26°C)		
			Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input			
1280	605	58.0	17.0		3.58		44.2		13.0		3.30		29.3		8.6	3.00	21.4
1600	755	59.1	17.3	3.36	45.3	13.3	3.08	30.4	8.9	2.78	22.5	6.6	2.47	11.6	3.4	1.80	
1920	905	60.1	17.6	3.23	46.3	13.6	2.95	31.4	9.2	2.65	23.5	6.9	2.34	12.6	3.7	1.67	

3 TON STANDARD EFFICIENCY - KHA036S4 - HEATING PERFORMANCE at 1200 cfm Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	2.45	45.3	13.3
60	16	2.41	42.9	12.6
55	13	2.37	40.4	11.8
50	10	2.33	38.0	11.1
47	8	2.30	36.6	10.7
45	7	2.27	34.6	10.1
40	4	2.20	29.6	8.7
35	2	2.12	24.6	7.2
30	-1	2.11	23.9	7.0
25	-4	2.09	23.2	6.8
20	-7	2.07	22.5	6.6
17	-8	2.06	22.1	6.5
15	-9	2.05	21.2	6.2
10	-12	2.01	18.8	5.5
5	-15	1.88	16.7	4.9
0	-18	1.75	14.7	4.3
-5	-21	1.62	12.7	3.7
-10	-23	1.49	10.7	3.1
-15	-26	1.37	8.7	2.5
-20	-29	1.24	6.6	1.9

4 TON STANDARD EFFICIENCY - KHA048S4 - HEATING PERFORMANCE at 1600 cfm Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	3.36	59.1	17.3
60	16	3.29	56.0	16.4
55	13	3.23	52.9	15.5
50	10	3.16	49.9	14.6
47	8	3.12	48.0	14.1
45	7	3.08	45.3	13.3
40	4	2.97	38.4	11.3
35	2	2.85	31.5	9.2
30	-1	2.82	30.9	9.1
25	-4	2.78	30.4	8.9
20	-7	2.75	29.8	8.7
17	-8	2.73	29.5	8.6
15	-9	2.70	28.3	8.3
10	-12	2.64	25.2	7.4
5	-15	2.47	22.5	6.6
0	-18	2.30	19.7	5.8
-5	-21	2.14	17.0	5.0
-10	-23	1.97	14.3	4.2
-15	-26	1.80	11.6	3.4
-20	-29	1.64	8.9	2.6

COOLING / HEATING RATINGS

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

5 TON STANDARD EFFICIENCY - COOLING CAPACITY

KHA060S4

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
			kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1600	755	58.8	17.2	3.72	.70	.84	.98	55.8	16.4	4.22	.72	.87	1.00	52.6	15.4	4.78	.74	.90	1.00	49.1	14.4	5.44	.76	.93	1.00
	2000	945	61.2	17.9	3.75	.76	.93	1.00	58.1	17.0	4.24	.78	.96	1.00	54.8	16.1	4.81	.81	.99	1.00	51.5	15.1	5.47	.84	1.00	1.00
	2400	1135	63.4	18.6	3.77	.82	1.00	1.00	60.5	17.7	4.27	.85	1.00	1.00	57.4	16.8	4.83	.88	1.00	1.00	53.9	15.8	5.49	.91	1.00	1.00
67°F (19°C)	1600	755	62.7	18.4	3.77	.55	.68	.81	59.5	17.4	4.26	.56	.69	.83	56.0	16.4	4.82	.57	.71	.86	52.2	15.3	5.48	.58	.74	.90
	2000	945	65.0	19.0	3.79	.58	.73	.89	61.5	18.0	4.28	.60	.76	.92	57.8	16.9	4.85	.61	.78	.96	53.9	15.8	5.50	.63	.81	.99
	2400	1135	66.6	19.5	3.81	.62	.80	.97	62.9	18.4	4.30	.63	.82	.99	59.1	17.3	4.87	.65	.85	1.00	55.0	16.1	5.52	.67	.89	1.00
71°F (22°C)	1600	755	67.1	19.7	3.82	.41	.53	.65	63.6	18.6	4.31	.42	.54	.67	59.9	17.6	4.88	.42	.55	.69	55.8	16.4	5.53	.43	.57	.71
	2000	945	69.2	20.3	3.84	.43	.57	.71	65.5	19.2	4.34	.43	.58	.73	61.6	18.1	4.90	.44	.60	.76	57.3	16.8	5.55	.44	.62	.79
	2400	1135	70.7	20.7	3.86	.44	.61	.77	66.8	19.6	4.36	.45	.62	.80	62.7	18.4	4.92	.45	.64	.83	58.3	17.1	5.57	.46	.67	.87

6 TON STANDARD EFFICIENCY - COOLING CAPACITY

KHA072S4

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			85°F (29°C)						95°F (35°C)						105°F (41°C)						115°F (46°C)					
			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb			Total Cooling Capacity		Comp Motor kW Input	Sensible To Total Ratio (S/T) Dry Bulb		
			kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C	kBtuh	kW		75°F 24°C	80°F 27°C	85°F 29°C
63°F (17°C)	1920	905	69.4	20.3	4.53	.71	.86	1.00	66.2	19.4	5.03	.72	.88	1.00	62.6	18.3	5.60	.74	.91	1.00	58.7	17.2	6.23	.77	.96	1.00
	2400	1135	73.0	21.4	4.53	.76	.95	1.00	69.5	20.4	5.04	.78	.97	1.00	65.8	19.3	5.60	.81	1.00	1.00	62.2	18.2	6.24	.84	1.00	1.00
	2880	1360	75.9	22.2	4.54	.82	1.00	1.00	72.8	21.3	5.04	.85	1.00	1.00	69.3	20.3	5.60	.88	1.00	1.00	65.4	19.2	6.24	.92	1.00	1.00
67°F (19°C)	1920	905	73.7	21.6	4.54	.56	.69	.82	70.2	20.6	5.03	.57	.70	.85	66.5	19.5	5.60	.58	.72	.87	62.3	18.3	6.24	.59	.74	.91
	2400	1135	77.2	22.6	4.54	.59	.73	.90	73.5	21.5	5.04	.60	.76	.94	69.5	20.4	5.60	.62	.78	.97	64.9	19.0	6.24	.63	.82	1.00
	2880	1360	79.7	23.4	4.55	.62	.80	.98	75.8	22.2	5.05	.63	.82	1.00	71.6	21.0	5.61	.65	.85	1.00	66.9	19.6	6.24	.67	.89	1.00
71°F (22°C)	1920	905	78.1	22.9	4.54	.42	.54	.66	74.6	21.9	5.04	.42	.55	.68	70.4	20.6	5.60	.43	.56	.69	66.0	19.3	6.24	.44	.57	.72
	2400	1135	81.6	23.9	4.55	.43	.58	.71	77.8	22.8	5.05	.44	.59	.73	73.6	21.6	5.61	.45	.60	.75	68.9	20.2	6.25	.45	.62	.79
	2880	1360	84.2	24.7	4.55	.45	.61	.77	80.4	23.6	5.05	.46	.62	.79	75.8	22.2	5.61	.46	.64	.82	70.9	20.8	6.24	.47	.66	.86

5 TON STANDARD EFFICIENCY - HEATING CAPACITY

KHA060S4

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil														
		65°F (18°C)		45°F (7°C)		25°F (-4°C)		5°F (-15°C)		-15°F (-26°C)						
		Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input					
cfm	L/s	kBtuh	kW	kBtuh	kW	kBtuh	kW	kBtuh	kW	kBtuh	kW	kBtuh	kW	kBtuh	kW	
1600	755	74.6	21.9	4.19	56.5	16.6	3.92	37.4	11.0	3.65	25.7	7.5	3.24	12.7	3.7	2.43
2000	945	87.4	25.6	5.55	66.5	19.5	4.89	45.3	13.3	4.18	27.8	8.1	3.70	13.5	4.0	2.82
2400	1135	89.7	26.3	5.25	68.9	20.2	4.59	47.7	14.0	3.88	30.1	8.8	3.40	15.8	4.6	2.52
		77.5	22.7	3.75	59.4	17.4	3.48	40.3	11.8	3.21	28.6	8.4	2.80	15.6	4.6	1.99

6 TON STANDARD EFFICIENCY - HEATING CAPACITY

KHA072S4

Indoor Coil Air Volume 70°F db (21°C db)		Air Temperature Entering Outdoor Coil														
		65°F (18°C)		45°F (7°C)		25°F (-4°C)		5°F (-15°C)		-15°F (-26°C)						
		Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input	Total Heating Capacity	Comp. Motor kW Input					
cfm	L/s	kBtuh	kW	kBtuh	kW	kBtuh	kW	kBtuh	kW	kBtuh	kW	kBtuh	kW	kBtuh	kW	
1920	905	87.4	25.6	5.55	66.5	19.5	4.89	45.3	13.3	4.18	27.8	8.1	3.70	13.5	4.0	2.82
2400	1135	89.7	26.3	5.25	68.9	20.2	4.59	47.7	14.0	3.88	30.1	8.8	3.40	15.8	4.6	2.52
2880	1360	91.3	26.8	5.07	70.5	20.7	4.41	49.3	14.4	3.70	31.7	9.3	3.21	17.4	5.1	2.33

5 TON STANDARD EFFICIENCY - KHA060S4 - HEATING PERFORMANCE at 2000 cfm Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	3.92	76.0	22.3
60	16	3.85	71.9	21.1
55	13	3.78	67.7	19.8
50	10	3.71	63.5	18.6
47	8	3.67	61.1	17.9
45	7	3.65	57.9	17.0
40	4	3.58	50.1	14.7
35	2	3.51	42.2	12.4
30	-1	3.44	40.5	11.9
25	-4	3.38	38.8	11.4
20	-7	3.31	37.1	10.9
17	-8	3.27	36.1	10.6
15	-9	3.24	34.5	10.1
10	-12	3.17	30.3	8.9
5	-15	2.97	27.1	7.9
0	-18	2.77	23.8	7.0
-5	-21	2.57	20.6	6.0
-10	-23	2.37	17.3	5.1
-15	-26	2.16	14.1	4.1
-20	-29	1.96	10.8	3.2

6 TON STANDARD EFFICIENCY - KHA072S4 - HEATING PERFORMANCE at 2400 cfm Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	5.25	89.7	26.3
60	16	5.11	84.6	24.8
55	13	4.96	79.5	23.3
50	10	4.81	74.5	21.8
47	8	4.72	71.4	20.9
45	7	4.59	68.9	20.2
40	4	4.27	62.5	18.3
35	2	3.96	56.2	16.5
30	-1	3.92	51.9	15.2
25	-4	3.88	47.7	14.0
20	-7	3.85	43.4	12.7
17	-8	3.83	40.8	12.0
15	-9	3.77	38.8	11.4
10	-12	3.62	33.7	9.9
5	-15	3.40	30.1	8.8
0	-18	3.18	26.5	7.8
-5	-21	2.96	23.0	6.7
-10	-23	2.74	19.4	5.7
-15	-26	2.52	15.8	4.6
-20	-29	2.30	12.2	3.6

BLOWER DATA - DIRECT DRIVE

2 - 2.5 TON

Blower tables include resistance for base unit with **wet indoor coil** & 2 in. disposable air filters in place.

FOR ALL UNITS ADD:

- 1 - Any factory installed options air resistance (economizer, etc.) See page 22.
- 2 - Any field installed accessories air resistance (electric heat, duct resistance, diffuser, etc.) See page 22.

External Static Pressure (in. w.g.)	Air Volume (cfm) at Various Blower Speeds					
	208 VOLTS			230 VOLTS		
	High	Medium	Low	High	Medium	Low
2 and 2.5 Ton Standard Efficiency (Downflow)			KHA024S and KHA030S			
0.0	1230	975	845	1425	1125	910
0.1	1220	940	815	1395	1110	875
0.2	1205	910	775	1375	1085	845
0.3	1185	880	730	1350	1055	815
0.4	1155	845	680	1320	1010	780
0.5	1115	800	---	1280	955	740
0.6	1060	750	---	1225	895	690
0.7	985	685	---	1150	830	---
0.8	890	---	---	1050	755	---
0.9	770	---	---	920	680	---
1.0	---	---	---	760	---	---
2 and 2.5 Ton Standard Efficiency (Horizontal)			KHA024S and KHA030S			
0.0	1165	925	800	1350	1065	865
0.1	1155	895	770	1325	1055	830
0.2	1140	865	735	1300	1030	800
0.3	1125	835	695	1280	1000	770
0.4	1095	800	645	1250	955	740
0.5	1055	760	---	1215	905	700
0.6	1005	710	---	1160	850	655
0.7	935	650	---	1090	785	---
0.8	845	---	---	995	720	---
0.9	730	---	---	875	645	---
1.0	---	---	---	720	---	---

BLOWER DATA - DIRECT DRIVE

3 - 4 TON

Blower tables include resistance for base unit with **wet indoor coil** & 2 in. disposable air filters in place.

FOR ALL UNITS ADD:

- 1 - Any factory installed options air resistance (economizer, etc.) See page 22.
- 2 - Any field installed accessories air resistance (electric heat, duct resistance, diffuser, etc.) See page 22.

External Static Pressure (in. w.g.)	Air Volume (cfm) at Various Blower Speeds								
	208 VOLTS			230 VOLTS			460/575 VOLTS		
	High	Medium	Low	High	Medium	Low	High	Medium	Low
3 and 4 Ton Standard Efficiency (Downflow)					KHA036S and KHA048S				
0.0	1990	1625	1145	2175	1825	1330	2100	1735	1220
0.1	1935	1595	1145	2100	1790	1320	2050	1705	1215
0.2	1885	1565	1130	2040	1755	1300	2000	1665	1205
0.3	1830	1530	1095	1980	1710	1265	1945	1625	1180
0.4	1775	1485	1050	1915	1660	1215	1885	1575	1145
0.5	1710	1425	980	1850	1595	1150	1815	1520	1095
0.6	1630	1350	900	1765	1510	1070	1735	1450	1025
0.7	1540	1255	800	1660	1405	975	1640	1375	940
0.8	1425	1140	---	1535	1280	---	1530	1285	---
0.9	1285	1000	---	1375	1120	---	1405	1185	---
1.0	1125	---	---	1180	---	---	1260	---	---
3 and 4 Ton Standard Efficiency (Horizontal)					KHA036S and KHA048S				
0.0	1890	1545	1090	2060	1740	1265	2085	1745	1260
0.1	1830	1515	1090	1990	1700	1255	2020	1700	1240
0.2	1780	1480	1070	1930	1660	1230	1960	1660	1225
0.3	1730	1445	1040	1870	1615	1200	1900	1620	1205
0.4	1675	1400	995	1810	1565	1150	1835	1575	1170
0.5	1610	1340	930	1740	1500	1090	1760	1515	1115
0.6	1530	1260	845	1650	1410	1010	1680	1440	1035
0.7	1420	1160	745	1535	1295	905	1580	1340	915
0.8	1290	1025	---	1385	1150	---	1460	1210	---
0.9	1120	865	---	1195	965	---	1320	1045	---
1.0	910	---	---	960	---	---	1155	---	---

BLOWER DATA - BELT DRIVE

3 TON

Blower tables include resistance for base unit with **wet indoor coil** & 2 in. disposable air filters in place.

FOR ALL UNITS ADD:

- 1 - Any factory installed options air resistance (economizer, etc.) See page 22
- 2 - Any field installed accessories air resistance (electric heat, duct resistance, diffuser, etc.) See page 22

Then determine from table the blower motor output and drive required.

0.10 to 1.00 in. w.g. 3 Ton Standard Efficiency (Downflow) KHA036S

Air Volume (cfm)	External Static (in.w.g.)															
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	Field Furnished				Low Static - Drive Kit A01										Kit A05	
900	485	0.10	595	0.15	690	0.20	780	0.30	860	0.40	930	0.50	1000	0.60	1065	0.75
1000	520	0.10	615	0.20	705	0.25	790	0.35	870	0.45	945	0.55	1010	0.65	1075	0.75
1100	550	0.15	640	0.20	725	0.30	805	0.35	885	0.45	955	0.55	1020	0.70	1085	0.80
1200	585	0.20	665	0.25	745	0.30	825	0.40	900	0.50	965	0.60	1030	0.70	1095	0.85
1300	620	0.20	695	0.30	770	0.35	845	0.45	915	0.55	980	0.65	1045	0.75	1105	0.90
1400	660	0.25	730	0.35	795	0.40	865	0.50	935	0.60	995	0.70	1060	0.80	1120	0.95
1500	695	0.30	760	0.40	825	0.45	890	0.55	955	0.65	1015	0.75	1075	0.85	1135	1.00

0.90 to 1.60 in. w.g. 3 Ton Standard Efficiency (Downflow) KHA036S

Air Volume (cfm)	External Static (in.w.g.)															
	0.90		1.0		1.10		1.20		1.30		1.40		1.50		1.60	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	High Static - Drive Kit A05										Field Furnished					
900	1125	0.85	1180	1.00	1230	1.10	1285	1.25	1330	1.35	1380	1.50	1425	1.65	1465	1.80
1000	1130	0.90	1190	1.00	1240	1.15	1295	1.30	1340	1.40	1390	1.60	1435	1.75	1475	1.85
1100	1140	0.90	1200	1.05	1250	1.20	1300	1.35	1350	1.50	1400	1.65	1445	1.80	1485	1.95
1200	1150	0.95	1210	1.10	1260	1.25	1310	1.40	1360	1.55	1410	1.70	1455	1.85	1495	2.00
1300	1165	1.00	1220	1.15	1270	1.30	1320	1.45	1370	1.60	1415	1.75	1465	1.90	1505	2.05
1400	1175	1.05	1230	1.20	1280	1.35	1330	1.50	1380	1.65	1425	1.80	1470	1.95	1515	2.15
1500	1190	1.15	1240	1.25	1295	1.40	1345	1.55	1390	1.70	1435	1.90	1480	2.05	1525	2.20

0.10 to 0.80 in. w.g. 3 Ton Standard Efficiency (Horizontal) KHA036S

Air Volume (cfm)	External Static (in.w.g.)															
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	Field Furnished				Low Static - Drive Kit A01											
900	480	0.10	570	0.15	655	0.20	735	0.30	810	0.35	875	0.45	940	0.55	1000	0.65
1000	520	0.15	595	0.15	675	0.25	750	0.30	820	0.40	890	0.50	950	0.60	1010	0.70
1100	555	0.15	625	0.20	695	0.25	765	0.35	835	0.45	900	0.50	960	0.60	1020	0.75
1200	595	0.20	660	0.25	725	0.30	790	0.40	850	0.45	915	0.55	975	0.65	1030	0.75
1300	635	0.25	690	0.30	750	0.35	810	0.40	870	0.50	930	0.60	990	0.70	1045	0.80
1400	675	0.30	730	0.35	785	0.40	840	0.50	895	0.55	950	0.65	1005	0.75	1060	0.85
1500	720	0.35	765	0.40	815	0.45	870	0.55	920	0.60	970	0.70	1025	0.80	1075	0.95

0.90 to 1.60 in. w.g. 3 Ton Standard Efficiency (Horizontal) KHA036S

Air Volume (cfm)	External Static (in.w.g.)															
	0.90		1.0		1.10		1.20		1.30		1.40		1.50		1.60	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	High Static - Drive Kit A05										Field					
900	1055	0.75	1105	0.90	1155	1.00	1200	1.10	1245	1.25	1285	1.35	1325	1.50	1365	1.60
1000	1065	0.80	1115	0.90	1165	1.05	1210	1.15	1255	1.30	1300	1.40	1340	1.55	1380	1.70
1100	1075	0.85	1125	0.95	1175	1.10	1220	1.20	1265	1.35	1310	1.50	1350	1.60	1395	1.75
1200	1085	0.90	1135	1.00	1185	1.15	1235	1.25	1280	1.40	1320	1.55	1365	1.70	1405	1.85
1300	1095	0.95	1145	1.05	1195	1.20	1245	1.30	1290	1.45	1330	1.60	1375	1.75	1415	1.90
1400	1110	1.00	1160	1.10	1210	1.25	1255	1.40	1300	1.50	1340	1.65	1385	1.80	1425	1.95
1500	1125	1.05	1175	1.15	1220	1.30	1265	1.45	1310	1.60	1355	1.75	1395	1.85	1435	2.05

BLOWER DATA - BELT DRIVE

4 TON

Blower tables include resistance for base unit with **wet indoor coil** & 2 in. disposable air filters in place.

FOR ALL UNITS ADD:

1 - Any factory installed options air resistance (economizer, etc.) See page 22

2 - Any field installed accessories air resistance (electric heat, duct resistance, diffuser, etc.) See page 22

Then determine from table the blower motor output and drive required.

0.10 to 0.80 in. w.g. 4 Ton Standard Efficiency (Downflow) KHA048S

Air Volume (cfm)	External Static (in.w.g.)															
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	Field Furnished						Low Static - Drive Kit A02									
1200	580	0.15	665	0.20	740	0.30	820	0.35	890	0.45	955	0.53	1020	0.63	1080	0.73
1300	620	0.20	690	0.25	765	0.30	835	0.40	905	0.48	970	0.58	1035	0.68	1090	0.78
1400	655	0.25	725	0.30	795	0.35	860	0.45	925	0.53	990	0.63	1050	0.73	1105	0.83
1500	690	0.28	755	0.35	820	0.40	884	0.50	945	0.58	1005	0.68	1065	0.78	1120	0.88
1600	730	0.33	790	0.40	850	0.48	910	0.55	970	0.65	1025	0.73	1085	0.83	1140	0.93
1700	765	0.40	825	0.48	880	0.53	935	0.60	995	0.70	1050	0.80	1105	0.90	1155	1.03
1800	805	0.48	860	0.53	910	0.60	970	0.70	1020	0.80	1075	0.88	1125	0.98	1175	1.08
1900	845	0.53	895	0.63	945	0.68	995	0.78	1050	0.85	1100	0.95	1150	1.08	1200	1.18
2000	885	0.63	930	0.68	980	0.78	1030	0.88	1080	0.95	1125	1.05	1175	1.15	1220	1.28

0.90 to 1.60 in. w.g. 4 Ton Standard Efficiency (Downflow) KHA048S

Air Volume (cfm)	External Static (in.w.g.)															
	0.90		1.00		1.10		1.20		1.30		1.40		1.50		1.60	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	High Static - Drive Kit A06														Field	
1200	1135	0.83	1190	0.95	1240	1.05	1290	1.20	1335	1.30	1380	1.43	1425	1.58	1470	1.70
1300	1145	0.88	1200	1.00	1250	1.10	1300	1.25	1350	1.38	1395	1.50	1440	1.63	1480	1.78
1400	1160	0.93	1215	1.05	1265	1.18	1310	1.30	1360	1.43	1405	1.57	1450	1.68	1490	1.83
1500	1175	0.98	1225	1.10	1275	1.25	1325	1.35	1370	1.50	1415	1.63	1460	1.78	1500	1.93
1600	1190	1.08	1240	1.18	1290	1.30	1340	1.45	1385	1.55	1430	1.70	1470	1.83	1515	2.00
1700	1205	1.13	1260	1.25	1305	1.38	1355	1.50	1400	1.65	1440	1.78	1485	1.93	1525	2.08
1800	1225	1.23	1275	1.33	1320	1.45	1370	1.60	1415	1.75	1455	1.85	1500	2.03	1540	2.18
1900	1245	1.28	1290	1.43	1340	1.55	1385	1.70	1425	1.80	1470	1.95	1510	2.10	1555	2.28
2000	1270	1.38	1315	1.53	1355	1.65	1400	1.78	1445	1.93	1485	2.05	1525	2.20	1565	2.38

0.10 to 0.80 in. w.g. 4 Ton Standard Efficiency (Horizontal) KHA048S

Air Volume (cfm)	External Static (in.w.g.)															
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	Field Furnished						Low Static - Drive Kit A02									
1200	590	0.18	655	0.20	720	0.25	780	0.35	845	0.40	905	0.50	965	0.58	1020	0.68
1300	630	0.20	685	0.25	745	0.30	805	0.38	865	0.45	925	0.52	980	0.60	1034	0.70
1400	675	0.25	725	0.30	780	0.35	835	0.43	890	0.50	945	0.53	995	0.65	1050	0.75
1500	715	0.33	760	0.35	810	0.40	860	0.50	914	0.55	965	0.63	1015	0.73	1065	0.80
1600	755	0.38	800	0.43	845	0.48	895	0.55	940	0.60	990	0.70	1040	0.80	1085	0.88
1700	795	0.45	835	0.50	880	0.55	925	0.63	970	0.70	1015	0.78	1060	0.85	1105	0.95
1800	840	0.53	875	0.58	915	0.63	960	0.70	1000	0.78	1045	0.85	1085	0.93	1130	1.03
1900	880	0.63	920	0.68	955	0.73	995	0.80	1035	0.88	1075	0.95	1115	1.03	1155	1.13
2000	925	0.73	960	0.78	995	0.83	1030	0.90	1070	0.98	1105	1.05	1145	1.13	1180	1.23

0.90 to 1.60 in. w.g. 4 Ton Standard Efficiency (Horizontal) KHA048S

Air Volume (cfm)	External Static (in.w.g.)															
	0.90		1.0		1.10		1.20		1.30		1.40		1.50		1.60	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	Kit A02		High Static - Drive Kit A06													
1200	1070	0.75	1120	0.85	1170	0.98	1215	1.08	1255	1.18	1300	1.30	1340	1.40	1380	1.55
1300	1085	0.80	1135	0.90	1180	1.00	1225	1.13	1270	1.23	1310	1.35	1350	1.48	1390	1.60
1400	1100	0.85	1145	0.98	1195	1.08	1240	1.18	1280	1.28	1324	1.43	1365	1.53	1405	1.68
1500	1115	0.90	1160	1.03	1205	1.13	1250	1.23	1295	1.35	1335	1.48	1375	1.63	1415	1.73
1600	1130	0.98	1175	1.08	1220	1.18	1265	1.33	1305	1.43	1350	1.55	1390	1.68	1425	1.80
1700	1150	1.05	1195	1.15	1240	1.28	1280	1.38	1320	1.50	1365	1.63	1400	1.75	1440	1.88
1800	1170	1.13	1215	1.23	1255	1.35	1300	1.48	1340	1.58	1380	1.73	1415	1.83	1455	1.98
1900	1195	1.23	1235	1.33	1275	1.43	1315	1.55	1355	1.68	1395	1.78	1435	1.93	1470	2.08
2000	1220	1.33	1260	1.43	1300	1.53	1340	1.68	1375	1.78	1415	1.93	1450	2.03	1485	2.18

BLOWER DATA - BELT DRIVE

5 TON

Blower tables include resistance for base unit with **wet indoor coil**, & 2 in. disposable air filters in place.

FOR ALL UNITS ADD:

1 - Any factory installed options air resistance (larger gas heat section, economizer, etc.) See page 22

2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.) See page 22

Then determine from table the blower motor output and drive required.

0.10 to 0.80 in. w.g.

5 Ton Standard Efficiency (Downflow)

KHA060S

Air Volume (cfm)	External Static (in.w.g.)															
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	Field Furnished						Low Static - Drive Kit A03									
1600	675	0.30	730	0.35	785	0.40	835	0.45	885	0.50	935	0.60	985	0.65	1030	0.70
1700	710	0.35	760	0.40	815	0.45	860	0.50	910	0.60	960	0.65	1005	0.70	1050	0.80
1800	745	0.45	795	0.50	845	0.55	890	0.60	935	0.65	980	0.70	1025	0.80	1070	0.85
1900	780	0.50	830	0.55	875	0.60	920	0.65	965	0.75	1010	0.80	1050	0.85	1090	0.95
2000	820	0.60	865	0.65	905	0.70	950	0.75	990	0.80	1035	0.90	1075	0.95	1115	1.05
2100	855	0.65	900	0.70	940	0.80	980	0.85	1020	0.90	1060	1.00	1100	1.05	1140	1.15
2200	890	0.75	935	0.80	970	0.85	1010	0.95	1050	1.00	1090	1.10	1130	1.15	1165	1.25
2300	930	0.85	970	0.90	1005	1.00	1045	1.05	1080	1.10	1120	1.20	1155	1.25	1190	1.35
2400	965	0.95	1005	1.05	1040	1.10	1075	1.15	1115	1.25	1150	1.30	1185	1.40	1220	1.50

0.90 to 1.60 in. w.g.

5 Ton Standard Efficiency (Downflow)

KHA060S

Air Volume (cfm)	External Static (in.w.g.)															
	0.90		1.00		1.10		1.20		1.30		1.40		1.50		1.60	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	Low Static - Drive Kit A03						High Static - Drive Kit A07									
1600	1075	0.80	1120	0.85	1160	0.95	1200	1.05	1240	1.10	1280	1.20	1320	1.30	1355	1.35
1700	1090	0.85	1135	0.95	1175	1.00	1215	1.10	1255	1.20	1295	1.30	1330	1.35	1365	1.45
1800	1110	0.95	1155	1.00	1195	1.10	1230	1.20	1270	1.25	1310	1.35	1345	1.45	1380	1.55
1900	1135	1.05	1170	1.10	1210	1.20	1250	1.25	1285	1.35	1325	1.45	1360	1.55	1395	1.65
2000	1155	1.10	1195	1.20	1230	1.30	1270	1.35	1305	1.45	1340	1.55	1375	1.65	1410	1.75
2100	1180	1.20	1215	1.30	1250	1.40	1290	1.45	1325	1.55	1360	1.65	1395	1.75	1425	1.85
2200	1200	1.30	1240	1.40	1275	1.50	1310	1.60	1345	1.70	1380	1.80	1410	1.85	1445	1.95
2300	1225	1.45	1260	1.50	1295	1.60	1330	1.70	1365	1.80	1400	1.90	1430	2.00	1465	2.10
2400	1255	1.55	1285	1.65	1320	1.75	1355	1.85	1385	1.90	1420	2.05	1450	2.10	1480	2.20

BLOWER DATA - BELT DRIVE

5 TON

Blower tables include resistance for base unit with **wet indoor coil**, & 2 in. disposable air filters in place.

FOR ALL UNITS ADD:

1 - Any factory installed options air resistance (larger gas heat section, economizer, etc.) See page 22

2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.) See page 22

Then determine from table the blower motor output and drive required.

0.10 to 0.80 in. w.g.

5 Ton Standard Efficiency (Horizontal)

KHA060S

Air Volume (cfm)	External Static (in.w.g.)															
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	Field		Low Static - Drive Kit A03													
1600	785	0.40	845	0.45	900	0.50	955	0.55	1010	0.65	1060	0.70	1110	0.80	1160	0.90
1700	825	0.45	880	0.50	935	0.60	990	0.65	1040	0.70	1090	0.80	1135	0.85	1185	0.95
1800	865	0.50	920	0.60	975	0.65	1020	0.75	1070	0.80	1120	0.90	1165	0.95	1210	1.05
1900	910	0.60	960	0.70	1010	0.75	1060	0.85	1105	0.90	1150	1.00	1195	1.05	1240	1.15
2000	950	0.70	1000	0.80	1050	0.85	1095	0.95	1140	1.00	1185	1.10	1225	1.15	1265	1.25
2100	995	0.80	1040	0.90	1085	0.95	1130	1.05	1175	1.15	1215	1.20	1260	1.30	1300	1.40
2200	1040	0.95	1085	1.00	1125	1.10	1170	1.15	1210	1.25	1250	1.35	1290	1.40	1330	1.50
2300	1080	1.05	1125	1.15	1165	1.20	1205	1.30	1245	1.40	1285	1.45	1325	1.55	1360	1.65
2400	1125	1.20	1165	1.25	1205	1.35	1245	1.45	1285	1.55	1320	1.60	1360	1.70	1395	1.80

0.90 to 1.60 in. w.g.

5 Ton Standard Efficiency (Horizontal)

KHA060S

Air Volume (cfm)	External Static (in.w.g.)															
	0.90		1.00		1.10		1.20		1.30		1.40		1.50		1.60	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	Drive Kit A03		High Static - Drive Kit A07													
1600	1210	0.95	1255	1.05	1305	1.15	1350	1.30	1395	1.40	1440	1.55	1485	1.65	1530	1.80
1700	1230	1.05	1275	1.15	1320	1.25	1365	1.35	1410	1.45	1455	1.60	1495	1.70	1540	1.85
1800	1255	1.15	1300	1.25	1340	1.35	1385	1.45	1425	1.55	1470	1.70	1510	1.80	1550	1.95
1900	1280	1.25	1325	1.35	1365	1.45	1405	1.55	1445	1.65	1485	1.75	1525	1.90	1565	2.00
2000	1310	1.35	1350	1.45	1390	1.55	1430	1.65	1470	1.75	1505	1.85	1545	2.00	1585	2.15
2100	1340	1.50	1375	1.55	1415	1.65	1455	1.80	1490	1.90	1530	2.00	1565	2.10	1605	2.25
2200	1370	1.60	1405	1.70	1445	1.80	1480	1.90	1515	2.00	1555	2.15	1590	2.25	1625	2.40
2300	1400	1.75	1435	1.85	1470	1.95	1510	2.05	1545	2.20	1580	2.30	1615	2.40	1650	2.55
2400	1430	1.90	1465	2.00	1505	2.15	1535	2.20	1570	2.35	1605	2.45	1640	2.60	1675	2.70

BLOWER DATA - BELT DRIVE

6 TON

Blower tables include resistance for base unit with **wet indoor coil** & 2 in. disposable air filters in place.

FOR ALL UNITS ADD:

1 - Any factory installed options air resistance (economizer, etc.) See page 22.

2 - Any field installed accessories air resistance (electric heat, duct resistance, diffuser, etc.) See page 22.

Then determine from table the blower motor output and drive required.

0.10 to 0.80 in. w.g.

6 Ton Standard Efficiency (Downflow)

KHA072S

Air Volume (cfm)	External Static (in.w.g.)															
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	Field Furnished										Low Static - Drive Kit A04					
1900	752	0.48	803	0.53	855	0.58	903	0.62	957	0.72	1008	0.78	1066	0.88	1118	0.92
2000	793	0.52	845	0.62	892	0.68	940	0.73	990	0.77	1041	0.88	1093	0.93	1144	1.03
2100	838	0.64	881	0.68	929	0.73	978	0.83	1023	0.88	1073	0.93	1124	1.03	1169	1.14
2200	880	0.73	923	0.78	966	0.84	1015	0.93	1061	0.99	1104	1.03	1149	1.13	1198	1.24
2300	921	0.83	966	0.89	1009	0.93	1053	0.99	1097	1.09	1139	1.15	1183	1.25	1220	1.35
2400	964	0.94	1007	0.99	1046	1.05	1089	1.14	1127	1.19	1168	1.29	1211	1.35	1247	1.45
2500	1006	1.05	1044	1.09	1087	1.14	1124	1.25	1160	1.30	1201	1.40	1238	1.51	1274	1.56
2600	1047	1.15	1085	1.20	1121	1.30	1157	1.36	1197	1.46	1234	1.56	1269	1.62	1304	1.72
2700	1094	1.31	1124	1.37	1159	1.41	1195	1.52	1229	1.62	1265	1.67	1295	1.77	1330	1.88
2800	1133	1.42	1162	1.52	1196	1.57	1226	1.67	1260	1.73	1295	1.83	1325	1.94	1360	2.04
2900	1170	1.58	1204	1.68	1232	1.73	1261	1.84	1290	1.89	1326	2.00	1356	2.09	1386	2.19

0.90 to 1.60 in. w.g.

6 Ton Standard Efficiency (Downflow)

KHA072S

Air Volume (cfm)	External Static (in.w.g.)															
	0.90		1.00		1.10		1.20		1.30		1.40		1.50		1.60	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	High Static - Kit A08															
1900	1170	1.03	1216	1.12	1261	1.23	1299	1.28	1338	1.39	1381	1.49	1423	1.59	1462	1.69
2000	1190	1.13	1238	1.18	1279	1.28	1317	1.39	1356	1.49	1397	1.59	1434	1.69	1476	1.80
2100	1213	1.19	1261	1.29	1300	1.39	1339	1.49	1373	1.60	1414	1.70	1449	1.79	1490	1.90
2200	1241	1.30	1282	1.39	1316	1.50	1355	1.60	1394	1.70	1429	1.79	1463	1.90	1498	1.99
2300	1263	1.39	1303	1.50	1337	1.60	1376	1.70	1409	1.80	1444	1.90	1483	2.04	1517	2.14
2400	1289	1.55	1323	1.61	1362	1.76	1397	1.86	1430	1.96	1464	2.05	1498	2.15	1532	2.25
2500	1314	1.66	1349	1.76	1383	1.87	1416	1.96	1451	2.06	1484	2.15	1517	2.24	1545	2.34
2600	1340	1.82	1374	1.92	1408	2.02	1438	2.12	1471	2.21	1505	2.30	1532	2.39	1565	2.49
2700	1365	1.98	1399	2.08	1429	2.12	1463	2.27	1497	2.36	1525	2.45	1558	2.55	1585	2.63
2800	1390	2.08	1425	2.24	1454	2.27	1488	2.42	1517	2.51	1545	2.60	1578	2.69	1605	2.84
2900	1421	2.28	1451	2.39	1480	2.47	1514	2.57	1543	2.65	1570	2.75	1597	2.89	1625	2.99

Note - **BOLD** - to operate in this range, 3 hp blower motor is required.

BLOWER DATA - BELT DRIVE

6 TON

Blower tables include resistance for base unit with **wet indoor coil**, & 2 in. disposable air filters in place.

FOR ALL UNITS ADD:

1 - Any factory installed options air resistance (economizer, etc.) See page 22.

2 - Any field installed accessories air resistance (electric heat, duct resistance, diffuser, etc.) See page 22.

Then determine from table the blower motor output and drive required.

0.10 to 0.80 in. w.g.

6 Ton Standard Efficiency (Horizontal)

KHA072S

Air Volume (cfm)	External Static (in.w.g.)															
	0.10		0.20		0.30		0.40		0.50		0.60		0.70		0.80	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	Field		Low Static - Drive Kit A04													
1900	919	0.60	969	0.65	1020	0.74	1065	0.79	1111	0.83	1154	0.93	1194	0.99	1232	1.04
2000	962	0.70	1013	0.75	1058	0.84	1103	0.90	1148	0.94	1186	1.04	1226	1.09	1264	1.15
2100	1010	0.80	1056	0.85	1101	0.95	1146	0.99	1185	1.05	1223	1.15	1262	1.20	1296	1.30
2200	1054	0.91	1099	0.95	1143	1.06	1183	1.10	1222	1.21	1261	1.25	1295	1.36	1333	1.41
2300	1102	1.01	1142	1.11	1182	1.16	1220	1.26	1258	1.31	1297	1.42	1330	1.46	1364	1.57
2400	1146	1.16	1184	1.21	1224	1.32	1262	1.37	1300	1.47	1333	1.58	1367	1.63	1401	1.72
2500	1188	1.27	1227	1.38	1265	1.48	1303	1.53	1336	1.63	1370	1.73	1404	1.79	1438	1.88
2600	1235	1.44	1273	1.55	1306	1.65	1339	1.70	1378	1.79	1407	1.89	1441	1.99	1475	2.03
2700	1276	1.61	1314	1.71	1347	1.81	1380	1.91	1414	2.00	1449	2.05	1478	2.14	1512	2.23
2800	1321	1.82	1354	1.92	1388	1.97	1421	2.07	1456	2.16	1485	2.25	1519	2.34	1549	2.44
2900	1367	2.03	1400	2.08	1429	2.17	1463	2.27	1497	2.36	1526	2.45	1556	2.54	1586	2.63

0.90 to 1.60 in. w.g.

6 Ton Standard Efficiency (Horizontal)

KHA072S

Air Volume (cfm)	External Static (in.w.g.)															
	0.90		1.00		1.10		1.20		1.30		1.40		1.50		1.60	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	Drive Kit A04				High Static - Kit A08											
1900	1271	1.13	1310	1.18	1345	1.24	1380	1.34	1421	1.39	1458	1.50	1493	1.60	1524	1.65
2000	1303	1.24	1337	1.29	1371	1.40	1412	1.45	1448	1.55	1485	1.61	1516	1.70	1551	1.75
2100	1335	1.36	1370	1.45	1404	1.50	1439	1.60	1476	1.65	1512	1.76	1544	1.81	1579	1.90
2200	1367	1.51	1401	1.56	1436	1.66	1472	1.71	1503	1.81	1540	1.91	1570	1.96	1606	2.06
2300	1398	1.62	1433	1.71	1468	1.81	1503	1.86	1535	1.97	1567	2.02	1603	2.11	1633	2.21
2400	1436	1.78	1470	1.87	1501	1.96	1535	2.01	1567	2.12	1600	2.22	1630	2.27	1660	2.36
2500	1473	1.98	1503	2.03	1533	2.12	1568	2.21	1599	2.27	1631	2.37	1662	2.47	1693	2.57
2600	1505	2.13	1539	2.23	1570	2.32	1600	2.37	1632	2.47	1664	2.57	1694	2.67	1725	2.77
2700	1542	2.33	1572	2.37	1607	2.47	1638	2.57	1664	2.67	1696	2.77	1726	2.87	1757	2.97
2800	1579	2.53	1609	2.58	1640	2.68	1670	2.77	1701	2.87	1732	2.96	1758	3.07	1789	3.16
2900	1616	2.73	1646	2.83	1676	2.92	1708	3.02	1733	3.06	1764	3.17	1794	3.31	1821	3.37

Note - **BOLD** - to operate in this range, 3 hp blower motor is required.

BLOWER DATA

BELT DRIVE KIT SPECIFICATIONS - 036-072

Motor hp		RPM Range							
Nominal	Maximum	Drive A01	Drive A02	Drive A03	Drive A04	Drive A05	Drive A06	Drive A07	Drive A08
1.5	1.72	673 - 1010	745 - 1117	833 - 1250	968 - 1340	897 - 1346	1071 - 1429	1212 - 1548	1193 - 1591
2	2.3								

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

BLOWER DATA

POWER EXHAUST FANS PERFORMANCE

Return Air System Static Pressure in. w.g.	Air Volume Exhausted - cfm											
	T1PWRE10A						T1PWRE10N					
	208V			230V, 460V and 575V			208V			230V, 460V and 575V		
	Low	Medium	High	Low	Medium	High	Low	Medium	High	Low	Medium	High
0	1290	1300	1320	1300	1305	1295	3545	3915	4230	3880	4135	4340
0.1	1045	1055	1055	1040	1050	1055	2880	3215	3580	3255	3550	3755
0.2	805	805	815	805	810	810	2290	2665	3055	2710	3010	3240
0.3	580	580	600	595	590	585	1735	2175	2605	2200	2500	2770
0.4	390	405	400	405	400	410	1165	1660	2175	1685	2010	2325
0.5	245	315	215	240	255	300	530	1045	1710	1120	1510	1885
0.6	155	340	35	90	165	290	---	250	1160	470	990	1420
0.7	145	515	---	---	140	400	---	---	470	---	430	915

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

Air Volume cfm	Economizer	Electric Heat
800	0.04	0.01
1000	0.04	0.03
1200	0.04	0.06
1400	0.04	0.09
1600	0.04	0.12
1800	0.05	0.15
2000	0.05	0.18
2200	0.05	0.20
2400	0.05	0.22
2600	0.06	0.24
2800	0.06	0.26
3000	0.06	0.28

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

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

CEILING DIFFUSER AIR THROW DATA

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

¹ Effective throw based on terminal velocities of 75 ft. per minute.

OUTDOOR SOUND DATA

1 Unit Model No.	Operating Mode	Octave Band Sound Power Levels dBA, re 10 ⁻¹² Watts Center Frequency - HZ							Sound Rating Number (dB)
		125	250	500	1000	2000	4000	8000	
024, 030, 036 and 048	Cooling	63	66	70	71	68	62	53	75
	Heating	63	66	71	70	68	62	54	75
060	Cooling	67	72	77	76	73	68	61	82
	Heating	70	72	77	76	73	69	60	82
072	Cooling	67	75	78	78	75	68	59	83
	Heating	69	77	79	80	76	69	61	84

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

¹ Tested according to AHRI Standard 270-95 test conditions and ANSI Standard S1.32-1981.

ELECTRICAL DATA

2 - 2.5 TON

DIRECT DRIVE BLOWER		KHA024S	KHA030S
¹ Voltage - 60hz		208/230V - 1 Ph	
Compressor 1	Rated Load Amps	13.5	14.1
	Locked Rotor Amps	58.3	73
Outdoor Fan Motors (1)	Full Load Amps (total)	1.7	1.7
Service Outlet 115V GFI		15 Amps	15 Amps
Indoor Blower Motor	Horsepower	.25	.25
	Full Load Amps	1.8	1.8
² Maximum Overcurrent Protection	Unit Only	30	35
³ Minimum Circuit Ampacity	Unit Only	21	22

ELECTRIC HEAT DATA

Electric Heat Voltage		208	240	208	240
² Maximum Overcurrent Protection	Unit + 7.5 kW Electric Heat	60	60	60	70
	10 kW	70	80	70	80
³ Minimum Circuit Ampacity	Unit + 7.5 kW Electric Heat	55	60	55	61
	10 kW	66	73	67	74

ELECTRICAL ACCESSORIES

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

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

² HACR type breaker or fuse.

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

ELECTRICAL DATA 3 TON

KHA036S

¹ Voltage - 60hz		208/230V - 1 Ph		208/230V - 3 Ph			460V - 3 Ph			575V - 3 Ph		
Compressor 1	Rated Load Amps	16.7		10.4			5.8			3.8		
	Locked Rotor Amps	79		73			38			36.5		
Outdoor Fan Motors (1)	Full Load Amps (total)	1.7		1.7			1.1			0.7		
Power Exhaust (1) 0.75 HP	Full Load Amps (total)	5		5			2.2			1.5		
Service Outlet 115V GFI		15 Amps		15 Amps			15 Amps			15 Amps		
Indoor Blower Motor	Horsepower	.5	1.5	.5	1.5	2	.5	1.5	2	.5	1.5	2
	Full Load Amps	3.9	11	3.9	6.6	7.5	2	3	3.4	2	2.4	2.7
² Maximum Overcurrent Protection	Unit Only	40	50	25	30	30	15	15	15	15	15	15
	with (1) 0.75 HP Power Exhaust	45	50	30	35	35	15	15	15	15	15	15
³ Minimum Circuit Ampacity	Unit Only	27	34	19	22	23	11	12	12	8	8	9
	with (1) 0.75 HP Power Exhaust	32	39	24	27	28	13	14	14	9	10	10

ELECTRIC HEAT DATA

Electric Heat Voltage		208	240	208	240	208	240	208	240	208	240	480	480	480	600	600	600
² Maximum Overcurrent Protection	Unit + 7.5 kW Electric Heat	70	70	70	80	40	45	45	45	45	50	25	25	25	20	20	20
	15 kW	100	110	110	125	60	70	70	70	70	70	35	35	35	30	30	30
³ Minimum Circuit Ampacity	Unit + 7.5 kW Electric Heat	61	66	68	73	39	42	41	44	42	45	22	23	24	17	17	18
	15 kW	95	105	102	112	58	64	61	67	62	68	33	34	35	26	26	27
² Maximum Overcurrent Protection	Unit + 7.5 kW Electric Heat and (1) 0.75 HP Power Exhaust	70	80	80	80	45	50	50	50	50	50	25	25	30	20	20	20
	15 kW	100	110	110	125	70	70	70	80	70	80	40	40	40	30	30	30
³ Minimum Circuit Ampacity	Unit + 7.5 kW Electric Heat and (1) 0.75 HP Power Exhaust	66	71	73	78	44	47	46	49	47	50	24	25	26	18	19	19
	15 kW	100	110	107	117	63	69	66	72	67	73	36	37	37	27	28	28

ELECTRICAL ACCESSORIES

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

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

² HACR type breaker or fuse.

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

ELECTRICAL DATA 4 TON

KHA048S

¹ Voltage - 60hz		208/230V - 1 Ph		208/230V - 3 Ph			460V - 3 Ph			575V - 3 Ph		
Compressor 1	Rated Load Amps	21.8		13.7			6.2			4.8		
	Locked Rotor Amps	117		83.1			41			33		
Outdoor Fan Motors (1)	Full Load Amps (total)	1.7		1.7			1.1			0.7		
Power Exhaust (1) 0.75 HP	Full Load Amps (total)	5		5			2.2			1.5		
Service Outlet 115V GFI		15 Amps		15 Amps			15 Amps			15 Amps		
Indoor Blower Motor	Horsepower	.5	1.5	.5	1.5	2	.5	1.5	2	.5	1.5	2
	Full Load Amps	3.9	11	3.9	6.6	7.5	2	3	3.4	2	2.4	2.7
² Maximum Overcurrent Protection	Unit Only	50	60	35	35	40	15	15	15	15	15	15
	with (1) 0.75 HP Power Exhaust	50	60	40	40	45	15	20	20	15	15	15
³ Minimum Circuit Ampacity	Unit Only	33	40	23	26	27	11	12	13	9	10	10
	with (1) 0.75 HP Power Exhaust	38	45	28	31	32	14	15	15	11	11	11

ELECTRIC HEAT DATA

Electric Heat Voltage		208	240	208	240	208	240	208	240	208	240	480	480	480	600	600	600
² Maximum Overcurrent Protection	Unit + 7.5 kW Electric Heat	80	80	80	90	50	50	50	50	50	50	25	25	25	20	20	20
	15 kW	110	125	110	125	70	70	70	80	70	80	35	35	35	30	30	30
³ Minimum Circuit Ampacity	Unit + 7.5 kW Electric Heat	67	72	74	80	43	46	45	48	46	49	23	24	24	18	19	19
	15 kW	101	111	108	119	62	68	65	71	66	72	34	35	35	27	28	28
² Maximum Overcurrent Protection	Unit + 7.5 kW Electric Heat and (1) 0.75 HP Power Exhaust	80	90	90	90	50	60	50	60	60	60	25	30	30	20	20	20
	15 kW	110	125	125	125	70	80	70	80	80	80	40	40	40	30	30	30
³ Minimum Circuit Ampacity	Unit + 7.5 kW Electric Heat and (1) 0.75 HP Power Exhaust	72	77	79	85	48	51	50	53	51	54	25	26	26	20	20	20
	15 kW	106	116	113	124	67	73	70	76	71	77	36	37	38	29	29	29

ELECTRICAL ACCESSORIES

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

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

² HACR type breaker or fuse.

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

ELECTRICAL/ELECTRIC HEAT DATA

5 TON

KHA060S

¹ Voltage - 60hz		208/230V - 1 Ph	208/230V - 3 Ph		460V - 3 Ph		575V - 3 Ph	
Compressor 1	Rated Load Amps	26.3	15.6		7.8		5.8	
	Locked Rotor Amps	134	110		52		38.9	
Outdoor Fan Motors (1)	Full Load Amps (total)	2.4	2.4		1.3		1	
Power Exhaust (1) 0.75 HP	Full Load Amps (total)	5	5		2.2		1.5	
Service Outlet 115V GFI		15 Amps	15 Amps		15 Amps		15 Amps	
Indoor Blower Motor	Horsepower	1.5	1.5	2	1.5	2	1.5	2
	Full Load Amps	11	6.6	7.5	3	3.4	2.4	2.7
² Maximum Overcurrent Protection	Unit Only	70	40	45	20	20	15	15
	with (1) 0.75 HP Power Exhaust	70	45	45	20	20	15	15
³ Minimum Circuit Ampacity	Unit Only	47	29	30	15	15	11	11
	with (1) 0.75 HP Power Exhaust	52	34	35	17	17	13	13

ELECTRIC HEAT DATA

Electric Heat Voltage		208	240	208	240	208	240	480	480	600	600
² Maximum Overcurrent Protection	Unit + 7.5 kW	90	100	50	60	60	60	30	30	20	20
	Electric Heat 15 kW	125	125	70	80	70	80	40	40	30	30
	22.5 kW	150	175	90	100	90	100	50	50	40	40
³ Minimum Circuit Ampacity	Unit + 7.5 kW	81	86	51	51	52	52	26	26	20	20
	Electric Heat 15 kW	114	125	68	74	69	75	37	38	29	29
	22.5 kW	148	164	88	97	89	98	48	49	38	39
² Maximum Overcurrent Protection	Unit + 7.5 kW	100	100	60	60	60	60	30	30	25	25
	Electric Heat and (1) 0.75 HP 15 kW	125	150	80	80	80	80	40	40	35	35
	Power Exhaust 22.5 kW	175	175	100	110	100	110	60	60	40	40
³ Minimum Circuit Ampacity	Unit + 7.5 kW	86	91	54	57	54	57	28	28	22	22
	Electric Heat and (1) 0.75 HP 15 kW	119	130	73	79	74	80	39	40	31	31
	Power Exhaust 22.5 kW	153	169	93	102	94	103	51	51	40	40

ELECTRICAL ACCESSORIES

Disconnect Kit	Standard Access - 0-15 kW	20W19	20W18	20W18	20W18	20W18
	22.5 kW	---	20W19	20W19	20W18	20W18
	Hinged Access - 0-15 kW	20W25	20W24	20W24	20W24	20W24
	22.5 kW	---	20W25	20W25	20W24	20W24

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

² HACR type breaker or fuse.

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

ELECTRICAL/ELECTRIC HEAT DATA
6 TON
KHA072S

		1 Voltage - 60hz	208/230V - 3 Ph		460V - 3 Ph		575V - 3 Ph	
Compressor	Rated Load Amps		19		9.7		7.4	
	Locked Rotor Amps		123		62		50	
Outdoor Fan Motor	Full Load Amps		3		1.5		1.2	
Power Exhaust (1) 0.75 HP	Full Load Amps		5		2.2		1.5	
Service Outlet 115V GFI			15 Amps		15 Amps		15 Amps	
Indoor Blower Motor	Horsepower		1.5	2	1.5	2	1.5	2
	Full Load Amps		6.6	7.5	3	3.4	2.4	2.7
² Maximum Overcurrent Protection	Unit Only		50	50	25	25	20	20
	With (1) 0.75 HP		50	50	25	25	20	20
	Power Exhaust							
³ Minimum Circuit Ampacity	Unit Only		34	35	17	18	13	14
	With (1) 0.75 HP		39	40	19	20	15	15
	Power Exhaust							

ELECTRIC HEAT DATA

Electric Heat Voltage			208	240	208	240	480	480	600	600
² Maximum Overcurrent Protection	Unit+ Electric Heat	7.5 kW	60	70	60	70	35	35	25	25
		15 kW	80	80	80	80	40	40	35	35
		22.5 kW	100	110	100	110	60	60	40	45
		30 kW	125	125	125	125	70	70	50	50
³ Minimum Circuit Ampacity	Unit+ Electric Heat	7.5 kW	53	56	54	57	28	29	22	23
		15 kW	73	79	74	80	40	40	31	32
		22.5 kW	92	102	93	102	51	51	40	41
		30 kW	112	124	113	125	62	63	49	50
² Maximum Overcurrent Protection	Unit+ Electric Heat and (1) 0.75 HP	7.5 kW	70	70	70	70	35	35	25	25
		15 kW	80	90	80	90	45	45	35	35
		22.5 kW	100	110	100	110	60	60	45	45
		30 kW	125	150	125	150	70	70	60	60
³ Minimum Circuit Ampacity	Unit+ Electric Heat and (1) 0.75 HP	7.5 kW	58	61	59	62	31	31	24	24
		15 kW	78	84	79	85	42	42	33	33
		22.5 kW	97	107	98	107	53	54	42	42
		30 kW	117	129	118	130	64	65	51	51

ELECTRICAL ACCESSORIES

Disconnect Kit	Standard Access - 0-22.5 kW	20W18	20W18	20W18	20W18
		30 kW	20W19	20W19	20W18
	Hinged Access - 0-22.5 kW	20W24	20W24	20W24	20W24
		30 kW	20W25	20W25	20W24

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

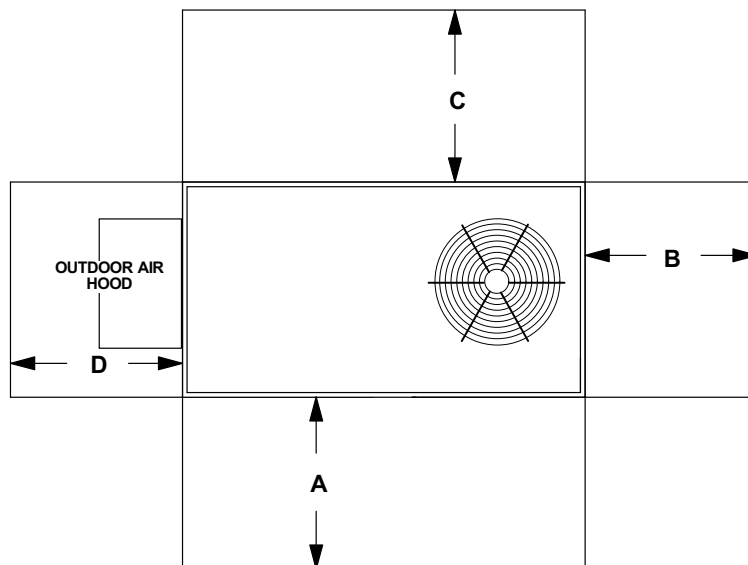
² HACR type breaker or fuse.

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

ELECTRIC HEAT CAPACITIES

Input Voltage	7.5 kW			10 kW			15 kW			22.5 kW			30 kW		
	No of Stages	kW input	Btuh Output	No of Stages	kW input	Btuh Output	No of Stages	kW input	Btuh Output	No of Stages	kW input	Btuh Output	No of Stages	kW input	Btuh Output
208	1	5.6	19,200	1	7.5	25,600	1	11.2	38,200	2	16.9	57,700	1	22.5	76,800
220	1	6.3	21,500	1	8.4	28,700	1	12.6	43,000	2	18.9	64,500	1	25.2	86,000
230	1	6.9	23,500	1	9.2	31,400	1	13.8	47,000	2	20.7	70,700	1	27.5	93,900
240	1	7.5	25,600	1	10.0	34,200	1	15.0	51,200	2	22.5	76,800	1	30.0	102,400
440	1	6.3	21,500	---	---	---	1	12.6	43,000	2	18.9	64,500	1	25.2	86,000
460	1	6.9	23,500	---	---	---	1	13.8	47,000	2	20.7	70,700	1	27.5	93,900
480	1	7.5	25,600	---	---	---	1	15.0	51,200	2	22.5	76,800	1	30.0	102,400
550	1	6.3	21,500	---	---	---	1	12.6	43,000	2	18.9	64,500	1	25.2	86,000
575	1	6.9	23,500	---	---	---	1	13.8	47,000	2	20.7	70,700	1	27.5	93,900
600	1	7.5	25,600	---	---	---	1	15.0	51,200	2	22.5	76,800	1	30.0	102,400

UNIT CLEARANCES - INCHES (MM)



¹ Unit Clearance	A		B		C		D		Top Clearance
	in.	mm	in.	mm	in.	mm	in.	mm	
Service Clearance	36	914	36	914	36	934	36	914	Unobstructed
Minimum Operation Clearance	36	914	36	914	36	914	36	914	

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

¹ Service Clearance - Required for removal of serviceable parts.

Minimum Operation Clearance - Required clearance for proper unit operation.

WEIGHT DATA

Model Number	Net				Shipping			
	Base		Max.		Base		Max.	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg
024S	531	241	643	292	591	268	712	323
030S	533	242	645	293	593	269	714	324
036S	535	243	647	293	595	270	716	325
048S	557	253	669	303	617	280	738	335
060S	667	303	770	349	727	330	842	382
072S	750	340	862	391	810	367	931	422

Base Unit - The unit with NO OPTIONS.

Max. Unit - The unit with ALL OPTIONS Installed (Economizer, etc.)

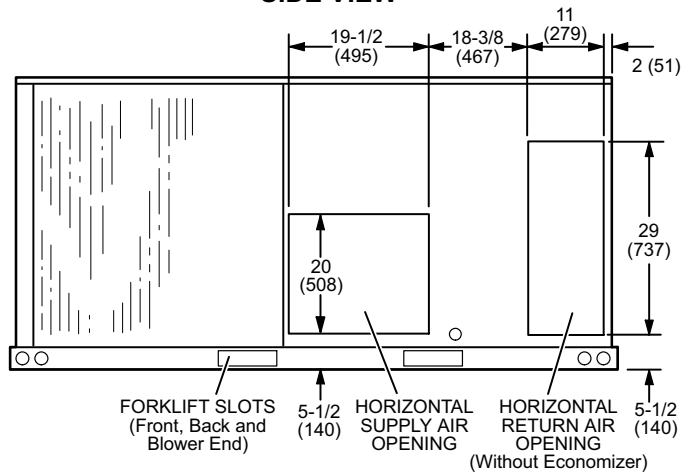
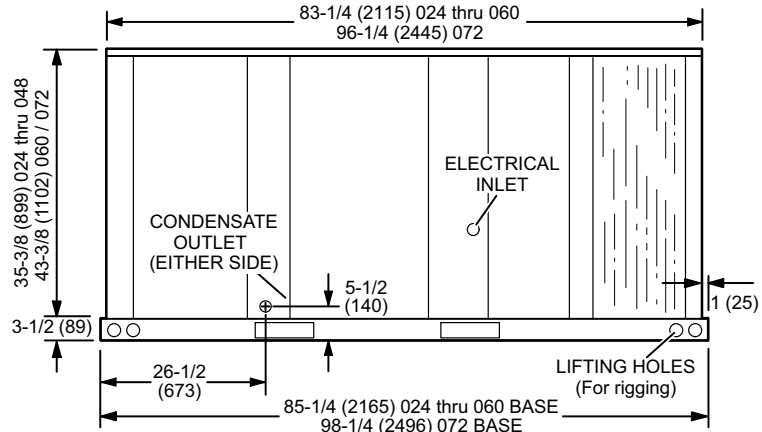
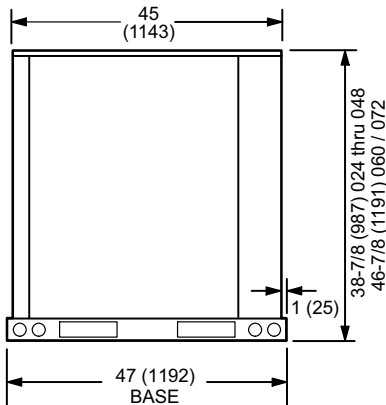
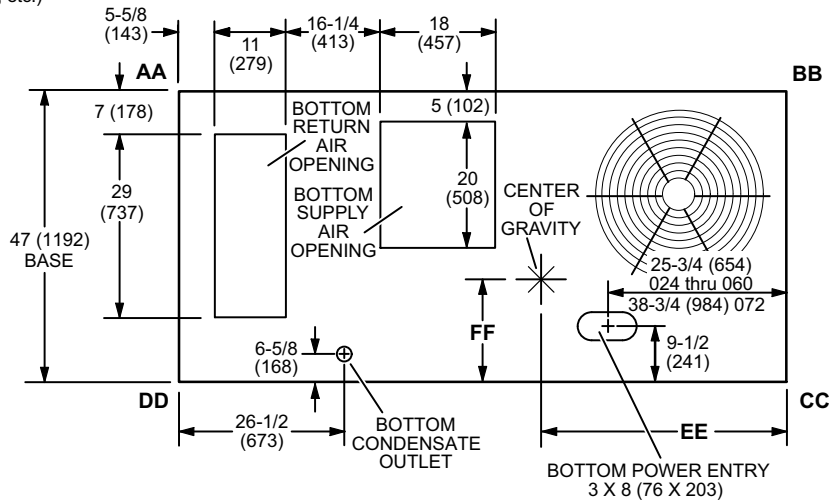
OPTIONS / ACCESSORIES

		Shipping Weights	
		lbs.	kg
ECONOMIZER / OUTDOOR AIR			
Economizer			
Economizer, Includes Outdoor Air Hood and Barometric Relief Dampers with Hood	T1ECON30A-1	123	56
	T1ECON30N-1	142	65
OUTDOOR AIR			
Outdoor Air Dampers			
Outdoor Air Damper Motorized Kit	T1DAMP11A-1	25	12
	T1DAMP11N-1	29	14
Damper Section Manual	T1DAMP21AN1	18	9
Power Exhaust			
Standard Static	T1PWRE10A-1	35	17
	T1PWRE10N-1	39	19
ELECTRIC HEAT			
Electric Heat	7.5 kW - T1EH0075AN1	31	14
	10 kW - T1EH0100AN1	31	14
	15 kW - T1EH0150AN1	31	14
	22.5 kW - T1EH0225AN1	35	16
	30 kW - T1EH0300N-1	35	16
ROOF CURBS - DOWNFLOW			
Cliplock			
8 in. height	T1CURB23AN1	78	35
	K1CURB23AP1	83	38
14 in. height	T1CURB20AN1	96	44
	K1CURB20AP1	101	46
18 in. height	T1CURB21AN1	108	49
	K1CURB21AP1	113	51
24 in. height	T1CURB22AN1	126	57
	K1CURB22AP1	131	59
Hinged			
8 in. height	T1CURB30AN1	78	35
	K1CURB30AP1	83	38
18 in. height	T1CURB32AN1	108	49
	K1CURB32AP1	113	51
24 in. height	T1CURB33AN1	126	57
	K1CURB33AP1	131	59
Standard			
14 in. height	T1CURB10AN1	96	44
	K1CURB10AP1	101	46
CEILING DIFFUSERS			
Step-Down	RTD9-65	67	30
	RTD11-95	88	40
Flush	FD9-65	37	17
	FD11-95	75	34
Transitions (Supply and Return)	T1TRAN10AN1	22	10
	T1TRAN20N-1	21	10

DIMENSIONS - INCHES (MM)

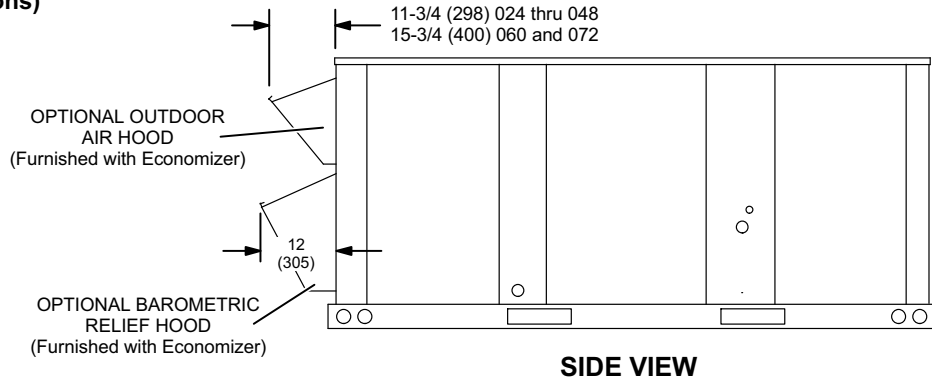
Model No.	CORNER WEIGHTS								CENTER OF GRAVITY															
	AA		BB		CC		DD		EE				FF											
	Base lbs.	Max. kg	Base lbs.	Max. kg	Base lbs.	Max. kg	Base lbs.	Max. kg	Base in.	Max. mm	Base in.	Max. mm	Base in.	Max. mm	Base in.	Max. mm								
024	92	42	116	53	112	51	131	59	180	82	211	96	148	67	186	85	38-1/2	978	40	1016	18	457	18	457
030	92	42	116	53	112	51	131	60	180	82	211	96	149	68	187	85	38-1/2	978	40	1016	18	457	18	457
036	93	42	116	53	112	51	132	60	181	82	212	96	149	68	187	85	38-1/2	978	40	1016	18	457	18	457
048	96	44	120	55	117	53	136	62	188	86	219	100	155	71	194	88	38-1/2	978	40	1016	18	457	18	457
060	115	52	138	63	140	64	157	71	226	103	252	115	166	84	223	101	38-1/2	978	40	1016	18	457	18	457
072	160	73	185	84	180	82	208	94	233	106	269	122	207	94	239	108	46-1/4	1174	46-1/4	1174	20-1/2	521	20-1/2	521

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

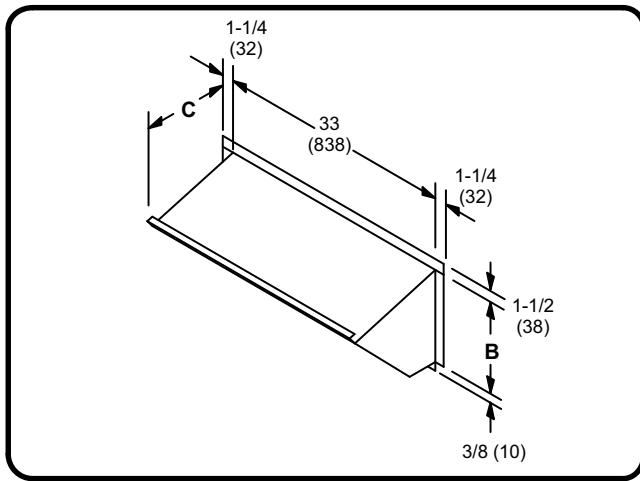


ACCESSORY DIMENSIONS - INCHES (MM)

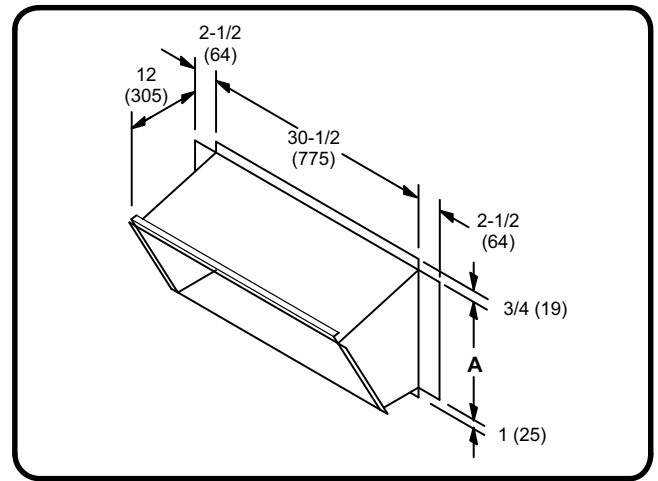
OUTDOOR AIR HOOD DETAIL FOR OPTIONAL ECONOMIZER AND BAROMETRIC RELIEF DAMPERS (Downflow Applications)



OUTDOOR AIR HOOD FOR ECONOMIZER (Furnished)

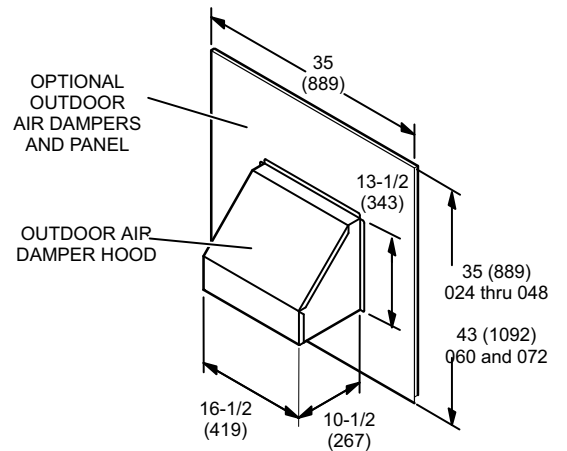
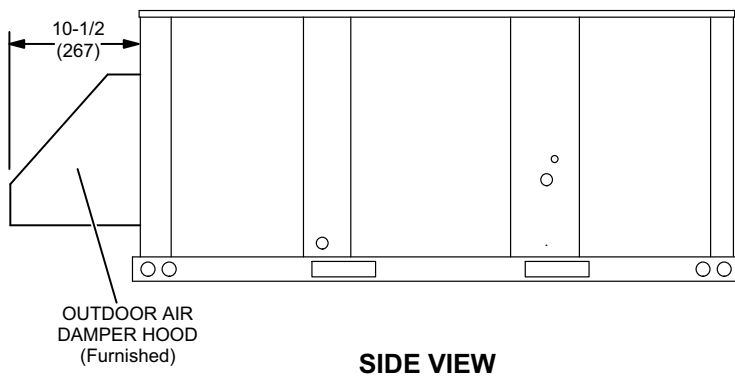


BAROMETRIC RELIEF HOOD FOR ECONOMIZER (Furnished)



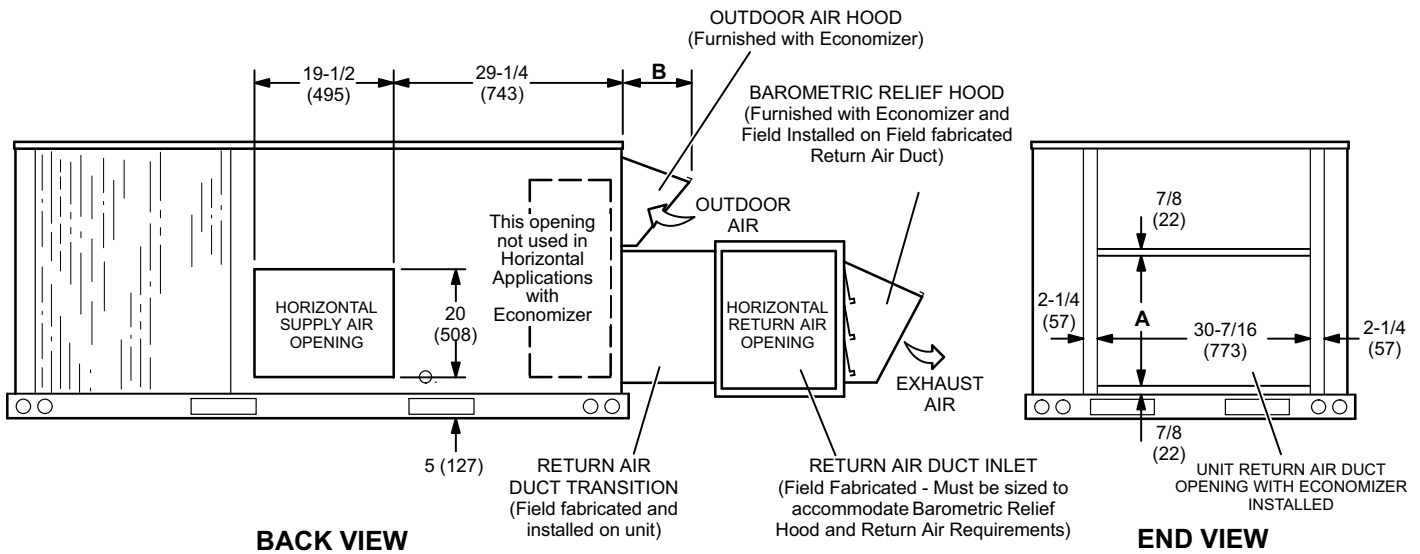
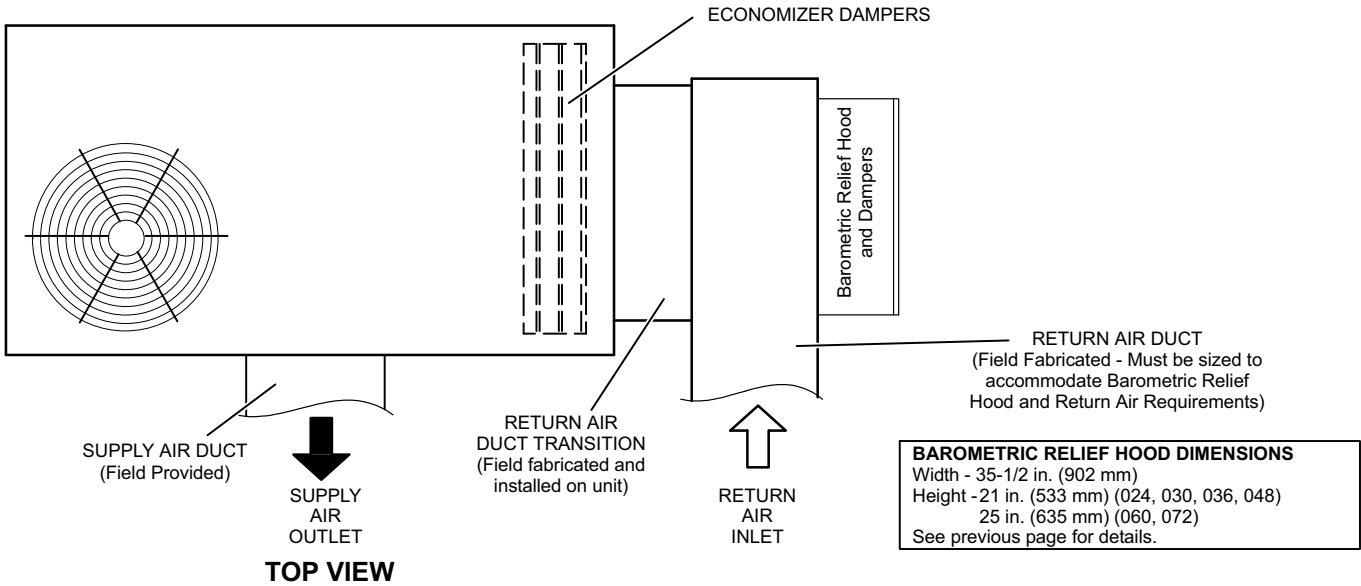
Model No.	A		B		C	
	in.	mm	in.	mm	in.	mm
024, 030, 036, 048	19-1/4	489	13	330	11-3/4	298
060, 072	23-1/4	591	17	432	15-3/4	400

OUTDOOR AIR DAMPER HOOD DETAIL FOR OPTIONAL MANUAL OR MOTORIZED OUTDOOR AIR DAMPERS (Downflow or Horizontal Applications)



ACCESSORY DIMENSIONS - INCHES (MM)

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

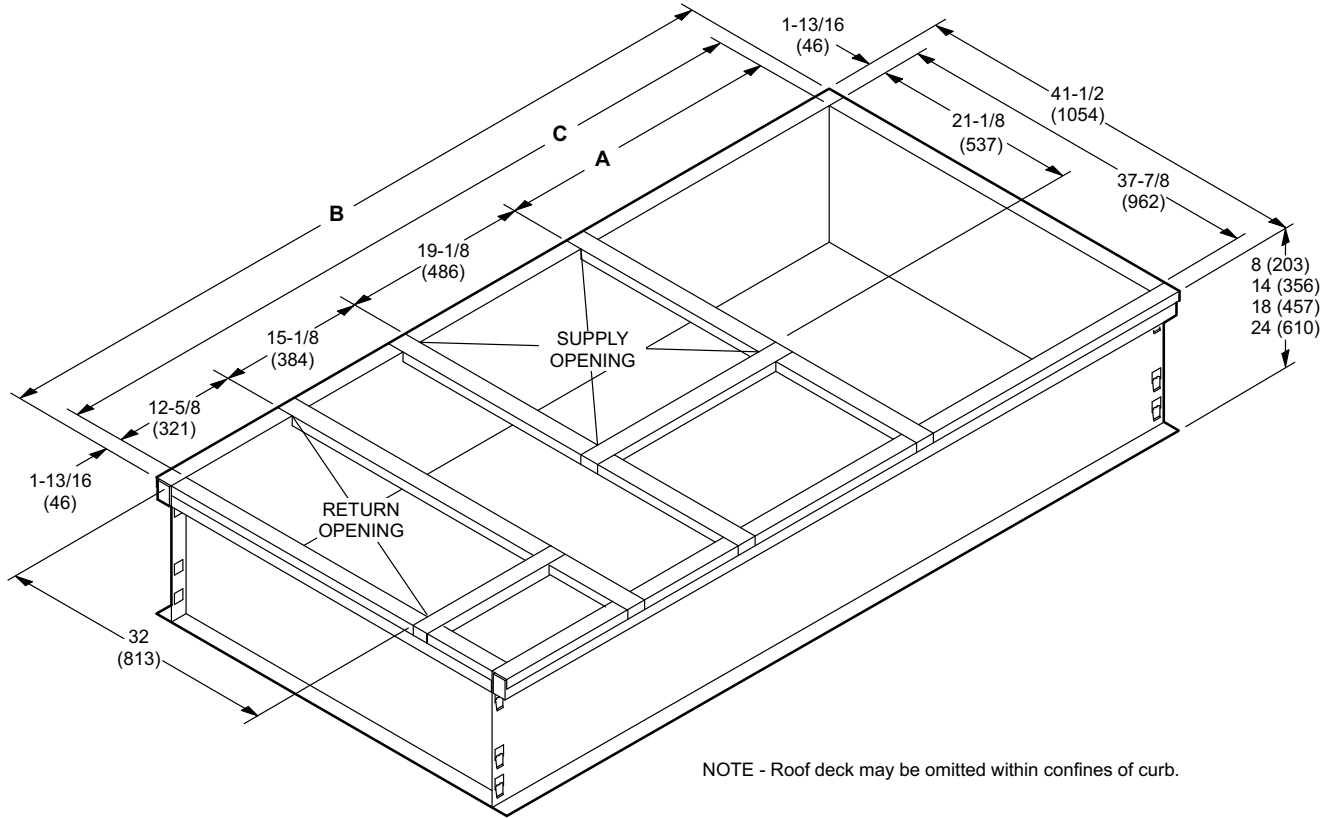


NOTE - Return Air Duct and Transition must be supported.

Model No.	A		B	
	in.	mm	in.	mm
024, 030, 036, 048	18-3/4	476	11-3/4	298
060, 072	22-1/2	572	15-3/4	400

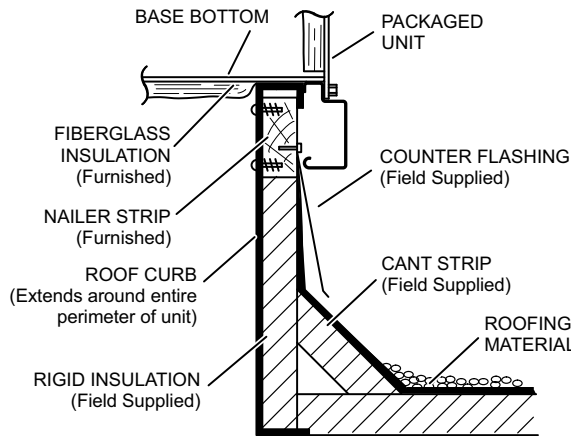
ACCESSORY DIMENSIONS - INCHES (MM)

CLIPLOCK 1000 ROOF CURBS - DOUBLE DUCT OPENING

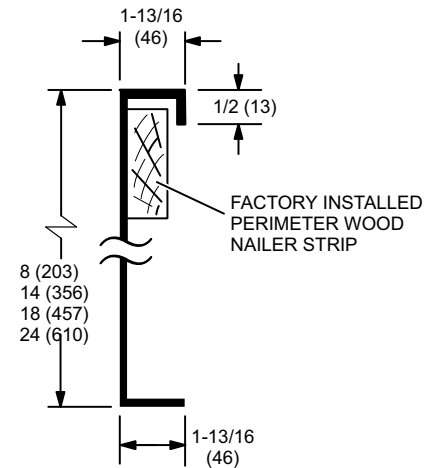


NOTE - Roof deck may be omitted within confines of curb.

TYPICAL FLASHING DETAIL FOR ROOF CURB



DETAIL ROOF CURB

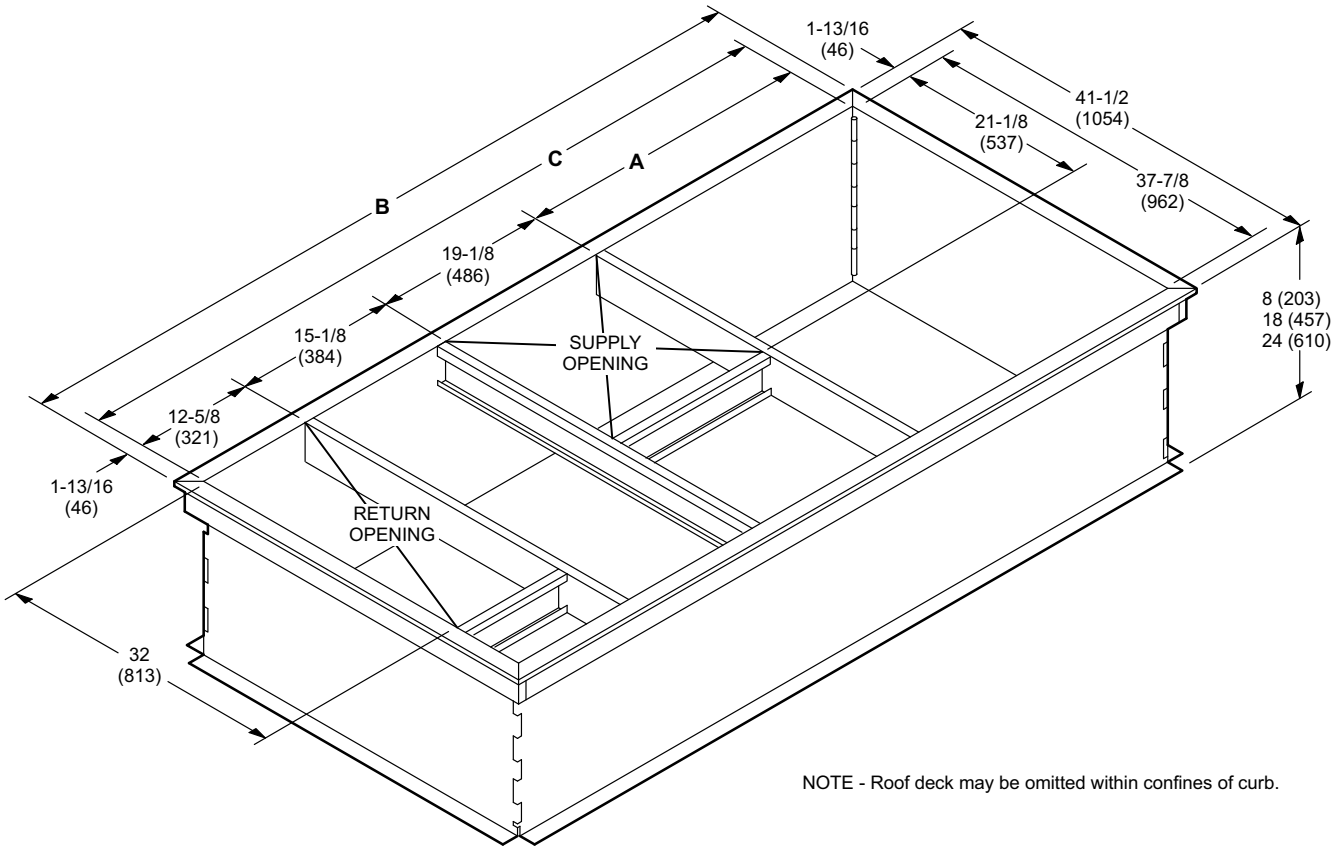


Model No.	A		B		C	
	in.	mm	in.	mm	in.	mm
024, 030, 036, 048, 060, ¹ 072	29-1/4	743	79-3/4	2026	76-1/8	1934
072	42-1/4	1073	92-3/4	2356	89-1/8	2264

¹ 072 models can be used on smaller 79-3/4 in. (2026 mm) roof curbs (not full perimeter) with 15-3/4 in. (400 mm) overhang at condenser end of unit. See dimension drawing on page 36.

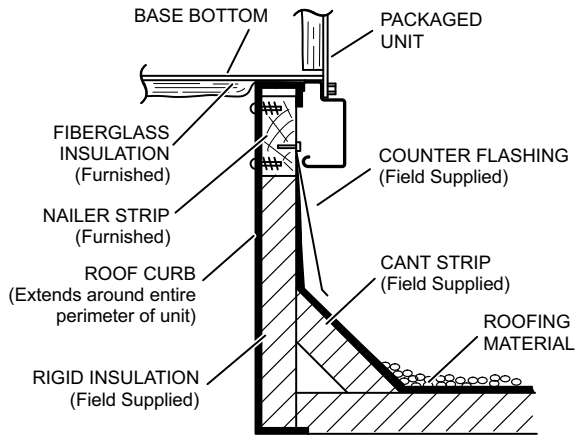
ACCESSORY DIMENSIONS - INCHES (MM)

HINGED ROOF CURBS - DOUBLE DUCT OPENING

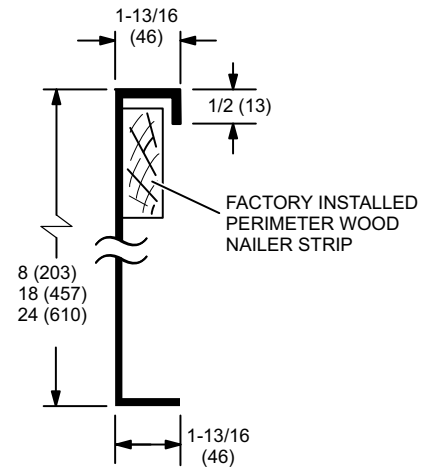


NOTE - Roof deck may be omitted within confines of curb.

TYPICAL FLASHING DETAIL FOR ROOF CURB



DETAIL ROOF CURB

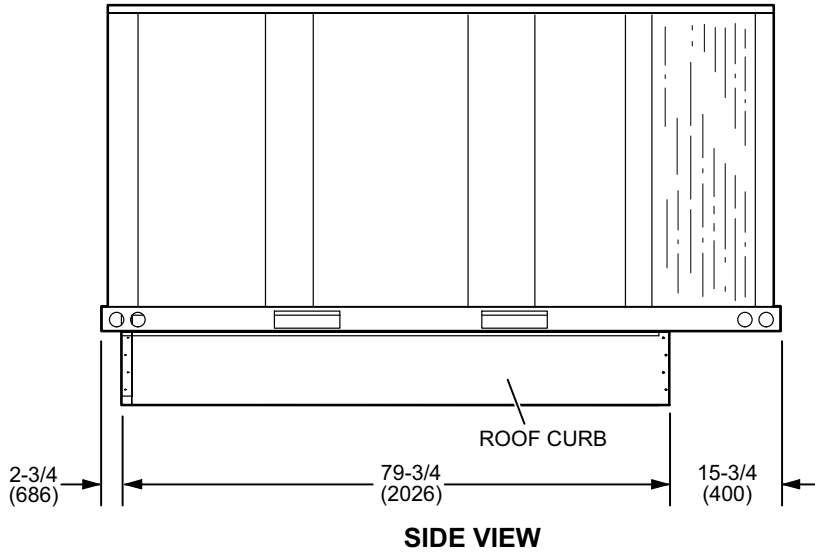


Model No.	A		B		C	
	in.	mm	in.	mm	in.	mm
024, 030, 036, 048, 060, ¹ 072	29-1/4	743	79-3/4	2026	76-1/8	1934
072	42-1/4	1073	92-3/4	2356	89-1/8	2264

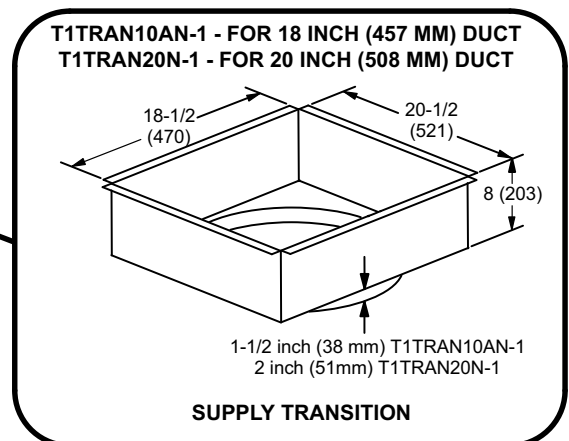
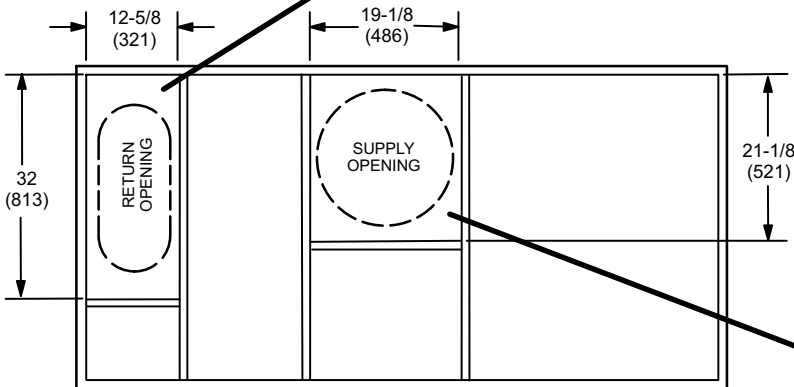
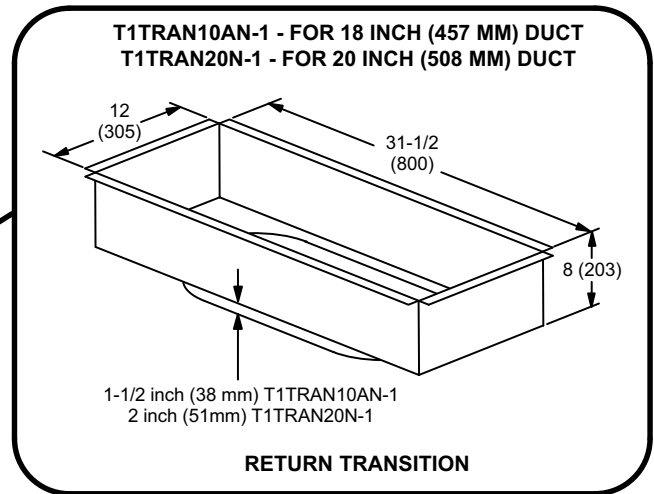
¹ 072 models can be used on smaller 79-3/4 in. (2026 mm) roof curbs (not full perimeter) with 15-3/4 in. (400 mm) overhang at condenser end of unit. See dimension drawing on page 36.

ACCESSORY DIMENSIONS - INCHES (MM)

**072 MODELS - SHOWING OVERHANG ON SMALLER 79-3/4 INCH LENGTH ROOF CURBS
(Not Full Perimeter)**



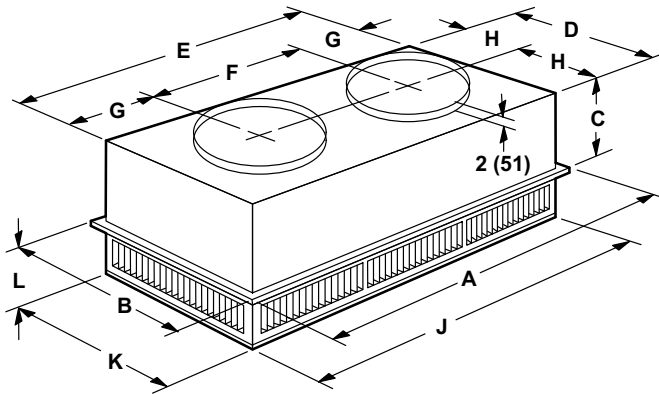
TRANSITIONS



ACCESSORY DIMENSIONS - INCHES (MM)

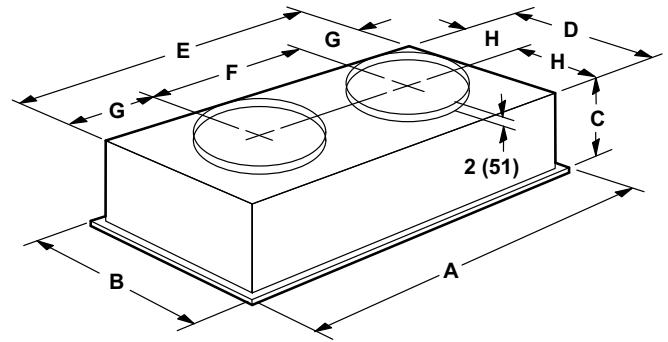
COMBINATION CEILING SUPPLY AND RETURN DIFFUSERS

STEP-DOWN CEILING DIFFUSER



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

FLUSH CEILING DIFFUSER



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

REVISIONS

Sections	Description of Change
Options/Accessories	Drive Kits changed to Factory Installed.
Expanded ratings	Updated table for 072.



ALLIED
Commercial

NOTE - Due to our ongoing commitment to quality, Specifications, Ratings and Dimensions subject to change without notice and without incurring liability. Improper installation, adjustment, alteration, service or maintenance can cause property damage or personal injury. Installation and service must be performed by a qualified installer and servicing agency.

©2009 Allied Air Enterprises