



ENGINEERING DATA

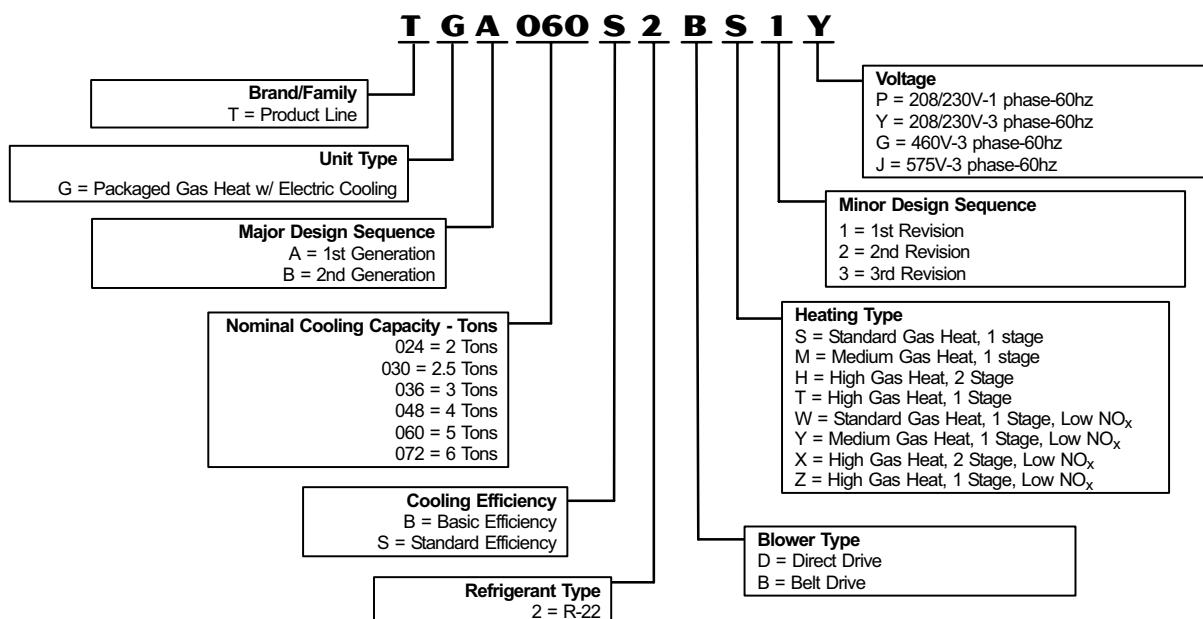
Bulletin No. TGA-024-030-036-048-060-072 (11/07)

ASHRAE 90.1
COMPLIANT

ENERGY STAR

2 to 6 Tons
Net Cooling Capacity - 23,400 to 72,000 Btuh
Gas Input Heat Capacity - 65,000 to 150,000 Btuh

MODEL NUMBER IDENTIFICATION



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FEATURES AND BENEFITS

APPROVALS

ETL and CSA listed.

Efficiency rating verified by GAMA (US) and CSA certified (Canada).

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 ARI Standard 210/240-2005.

6 ton models are certified in accordance with the ULE certification program, which is based on ARI Standard 340/360-2004.

Standard efficiency models are ASHRAE 90.1 compliant.

ENERGY STAR® certified units are designed to use less energy, help save money on utility bills, and help protect the environment. Standard efficiency models are ENERGY STAR® certified (all models except TGA072S2B).

ISO 9001 Registered Manufacturing Quality System.

All Low NOx models meet the California Nitrogen Oxides (NOx) Standards that apply in the South Coast Air Quality Management District and the San Francisco Bay Area Air Quality Management District.

WARRANTY

Limited ten years aluminized heat exchanger, limited fifteen years optional stainless steel heat exchanger.

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/Gas Entry

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

Optional Bottom Gas Entry Kit is available.

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.

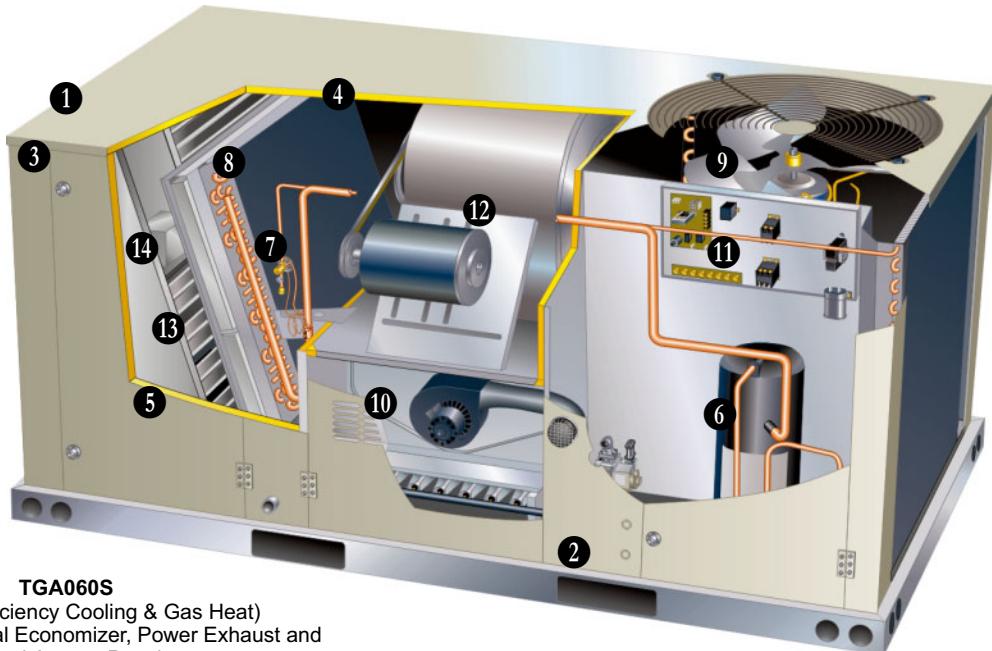
Hail Guards

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

Bottom Gas Entry Kit

Field installed piping kit to facilitate bottom gas entry.

FEATURES AND BENEFITS



TGA060S

(Standard Efficiency Cooling & Gas Heat)
Shown With Optional Economizer, Power Exhaust and
Hinged Access Panels

COOLING SYSTEM

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

Two efficiency levels provide design flexibility.

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

⑥ Compressor

Resiliently mounted on rubber grommets for quiet operation.

Reciprocating compressor on 036B models.

Scroll compressors 024S, 030S, 036S, 048, 060 and 072 models for high performance, reliability and quiet operation.

⑦ Thermal Expansion Valve

Assures optimal performance throughout the application range.

Removable element head.

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.

⑧ Coil Construction

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

Evaporator Coil

Cross row circuiting with rifled copper tubing optimizes both sensible and latent cooling capacity.

Condenser 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.

⑨ 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.

Cooling Efficiency

Specify either standard or basic efficiency.

OPTIONS/ACCESSORIES

Field Installed

Condensate Drain Trap

Field installed only.

Available in copper or PVC.

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.

Low Ambient Kit

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

FEATURES AND BENEFITS

HEATING SYSTEM

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

Heat Exchanger

Tubular construction, aluminized steel, life cycle tested.
Stainless Steel Heat Exchanger is required if mixed air temperature is below 45°F.

11 Electronic Pilot Ignition

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

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

Limit Controls

Factory installed, redundant limit controls with fixed temperature setting. Heat limit controls protect heat exchanger and other components from overheating.

Safety Switches

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

Low NO_x Models

All models are available in low NO_x versions.

REQUIRED SELECTIONS

Gas Input Choice - Order one:

65,000 Btuh Standard Gas Heat, 1 Stage
105,000 Btuh Medium Gas Heat, 1 Stage
105,000/150,000 Btuh High Gas Heat, 2 Stage
150,000 Btuh High Gas Heat, 1 Stage

Standard or Low NO_x

Specify standard gas heat or Low NO_x option.

OPTIONS/ACCESSORIES

Field Installed

Stainless Steel Heat Exchanger

Required if mixed air temperature is below 45°F.

Field Installed

Combustion Air Intake Extensions

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

Low Temperature Vestibule Heater

Electric heater automatically controls minimum temperature in gas burner compartment when temperature is below -40°F. C.S.A. certified to allow operation of unit down to -60°F.

LPG/Propane Kits

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

Vertical Vent Extension Kit

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

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 return air section

Commercial Control Systems

Thermostats

Control system and thermostat options. Aftermarket unit controller options. See Page NO TAG.

12 BLOWER

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

Motor

Overload protected, equipped with ball bearings (belt drive) or sleeve bearings (direct drive).

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

Indoor Air Quality (CO₂) Sensor

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

ELECTRICAL

REQUIRED SELECTIONS

Voltage Choice

Specify when ordering base unit.

OPTIONS/ACCESSORIES

Field Installed

GFI Service Outlets (2)

115v ground fault circuit interrupter (GFCI) type.

FEATURES AND BENEFITS

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.

OPTIONS / ACCESSORIES

ECONOMIZER/OUTDOOR AIR/EXHAUST OPTIONS

Factory or Field Installed

⑬ 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.

Outdoor Air Hoods are included when economizer is factory installed and must be ordered extra when economizer is field installed.

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.

Outdoor Air Hoods

Must be ordered extra for field installed Economizer.

Includes outdoor air and barometric relief damper hoods.

⑭ 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 and Outdoor Air Hood (ordered separately). 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.

Standard roof curb corners fasten together with furnished hardware.

Hinged curb corners fasten together with furnished hinge pins.

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

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
Compressor Crankcase Heater	208/230V-1 or 3 ph - T1CCHT01AN1P	95M07	x	x	x	x	x
	208/230V-1 or 3ph - K1CCHT02A-1P	39W04			1x		
	460V-3ph - K1CCHT02A-1G	39W05			1x		
	460V-3ph - T1CCHT01AN1G	95M08			x	x	x
	575V-3ph - T1CCHT01AN1J	95M09			x	x	x
Low Ambient Kit	T1SNSR12AN1	95M05	x	x	x	x	x
Efficiency	Standard	○	○	○	○	○	○
				○	○	○	
High Pressure Switch	T1SNSR11AN1	95M04	x	x	x	x	x
Refrigerant Type	R-22	○	○	○	○	○	○
HEATING SYSTEM							
Bottom Gas Piping Kit	T1GPKT01AN1	19W50	x	x	x	x	x
Low Temperature Vestibule Heater	208/230V-1 or 3 ph - T1CWKT01AN1Y	19W53	x	x	x	x	x
	460V-3ph - T1CWKT01AN1G	19W54			x	x	x
	575V-3ph - T1CWKT01AN1J	19W62			x	x	x
Combustion Air Intake Extensions	T1EXTN10AN1	19W51	x	x	x	x	x
Gas Heat Input	Standard One-Stage - 65 kBtuh input	○	○	○	○	○	○
	Medium One-Stage - 105 kBtuh input		○	○	○	○	
	High Two-Stage - 105/150 kBtuh input		○	○	○	○	
	High One-Stage - 150 kBtuh input		○	○	○	○	
LPG/Propane Conversion Kits	For one-stage models - T1PROP10AN1	19W48	x	x	x	x	x
	For two-stage models - T1PROP20AN1	19W49		x	x	x	x
Stainless Steel Heat Exchanger		○	○	○	○	○	○
Vertical Vent Extension	C1EXTN20FF1	31W62	x	x	x	x	x
BLOWER - SUPPLY AIR							
Motors	Direct Drive - 0.25 hp	○	○				
	Direct Drive - 0.5 hp		○	○			
	Direct Drive - 0.75 hp				○		
	Belt Drive - 1.5 hp Standard Efficiency	○	○	○	○		
	Belt Drive - ² 2 hp Standard Efficiency	○	○	○	○		
Drive Kits	Drive Kit # 1 - T1DRKT001-1 - 673-1010 rpm	20W81			⊗		
See Blower Data Tables for selection	Drive Kit # 2 - T1DRKT002-1 - 745-1117 rpm	20W82			⊗		
	Drive Kit # 3 - T1DRKT003-1 - 833-1250 rpm	20W83				⊗	
	Drive Kit # 4 - T1DRKT004-1 - 968-1340 rpm	20W84					⊗
	Drive Kit # 5 - T1DRKT005-1 - 897-1346 rpm	20W85			⊗		
	Drive Kit # 6 - T1DRKT006-1 - 1071-1429 rpm	20W86				⊗	
	Drive Kit # 7 - T1DRKT007-1 - 1212-1548 rpm	20W87					⊗
	Drive Kit # 8 - T1DRKT008-1 - 1193-1591 rpm	20W88					⊗
CABINET							
Coil Guards	T1GARD20A-1	17W87	x	x	x	x	x
	T1GARD20N-1	17W88					x
Corrosion Protection		○	○	○	○	○	○
Hail Guards	T1GARD10A-1	17W89	x	x	x	x	x
	T1GARD10N-1	17W90					x
Hinged Access Panels		○	○	○	○	○	○

NOTE - The 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.

¹ 036B models only

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

OPTIONS / ACCESSORIES

Item	Catalog No.	024	030	036	048	060	072
CONTROLS							
Dirty Filter Switch	COSWCH00AE-1 30K48	x	x	x	x	x	x
Smoke Detector - Return	T1SNSR41AN1 94M18	x	x	x	x	x	x
ELECTRICAL							
Voltage 60 hz	208/230V - 1 phase	(○)	(○)	(○)	(○)	(○)	(○)
	208/230V - 3 phase		(○)	(○)	(○)	(○)	(○)
	460V - 3 phase		(○)	(○)	(○)	(○)	(○)
	575V - 3 phase		(○)	(○)	(○)	(○)	(○)
Disconnect	See Electric Data Tables for usage	x	x	x	x	x	x
GFI Service Outlets	LTAGFIK10/15 74M70	x	x	x	x	x	x
ECONOMIZER							
Economizer							
Economizer, Single Enthalpy Control Order Outdoor Air Hood Separately	T1ECON30A-1 16W86	(⊗)	(⊗)	(⊗)	(⊗)	(⊗)	(⊗)
	T1ECON30N-1 16W89						(⊗)
Horizontal Economizer Conversion Kit	T1HECK00AN1 17W45	x	x	x	x	x	x
Outdoor Air Hood	T1HOOD30A-1 16W87	(⊗)	(⊗)	(⊗)	(⊗)	(⊗)	(⊗)
	T1HOOD30N-1 16W90						(⊗)
Economizer Controls							
Differential Enthalpy Sensor	T1SNSR60AN1 17W71	x	x	x	x	x	x
Single Temperature Control	TASEK10/15 76M37	x	x	x	x	x	x
Differential Temperature Control	Order 2 - TASEK10/15 76M37	x	x	x	x	x	x
OUTDOOR AIR							
Outdoor Air Dampers							
Damper Section - Manual, Includes Outdoor Air Hood	T1DAMP11A-1 16W88	x	x	x	x	x	x
	T1DAMP11N-1 16W91						x
Damper Motorized Kit - Order Manual Outdoor Air Damper Separately	T1DAMP21AN1 16W92	x	x	x	x	x	x
POWER EXHAUST FAN							
Standard Static	208/230V-1 or 3 ph - T1PWRE10A-1P 17W39			x	x	x	
	460V-3ph - T1PWRE10A-1G 17W40		x	x	x		
	575V-3ph - T1PWRE10A-1J 17W41		x	x	x		
	208/230V-1 or 3 ph - T1PWRE10N-1P 17W42						x
	460V-3ph - T1PWRE10N-1G 17W43						x
	575V-3ph - T1PWRE10N-1J 17W44						x
INDOOR AIR QUALITY							
Indoor Air Quality (CO₂) Sensors							
Sensor - white case CO ₂ display	C0SNSR50AE1L 77N39	x	x	x	x	x	x
Sensor - duct mount, black case, no display	C0SNSR53AE1L 87N54	x	x	x	x	x	x
CO ₂ Sensor Duct Mounting Kit	C0MISC19AE1- 85L43	x	x	x	x	x	x

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OPTIONS / ACCESSORIES

Item	Catalog No.	024	030	036	048	060	072
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 - DOWN-FLOW

Cliplock

8 in. height	T1CURB23AN1	16W93	x	x	x	x	x	x
14 in. height	T1CURB20AN1	16W94	x	x	x	x	x	x
18 in. height	T1CURB21AN1	16W95	x	x	x	x	x	x
24 in. height	T1CURB22AN1	16W96	x	x	x	x	x	x

Standard

14 in. height	T1CURB10AN1	13W27	x	x	x	x	x	x
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Hinged

8 in. height	T1CURB30AN1	17W46	x	x	x	x	x	x
18 in. height	T1CURB32AN1	17W47	x	x	x	x	x	x
24 in. height	T1CURB33AN1	17W48	x	x	x	x	x	x

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

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- Configure to Order (Factory Installed)

X - Field Installed.

SPECIFICATIONS - DIRECT DRIVE BLOWER
2 - 2.5 TON

General Data		Nominal Tonnage	2 Ton TGA024S2D Standard	2.5 Ton TGA030S2D Standard
Cooling Performance	Gross Cooling Capacity - Btuh	24,000	30,000	
	¹ Net Cooling Capacity - Btuh	23,400	29,400	
	ARI Rated Air Flow - cfm	840	1000	
	² Sound Rating Number (dB)	75	75	
	Total Unit Power - kW	2	2.5	
	¹ SEER (Btuh/Watt)	13.5	13.5	
	¹ EER (Btuh/Watt)	12	11.8	
Refrigerant	Type	R-22	R-22	
	Charge Furnished	7 lbs. 0 oz.	7 lbs. 0 oz.	
Gas Heating Options - See Page 13		Standard		
Compressor Type (one per unit)		Scroll	Scroll	
Outdoor Coil	Net face area - sq. ft.	15.6	15.6	
	Tube diameter - in.	3/8	3/8	
	Number of rows	1	1	
	Fins per inch	20	20	
Outdoor Coil Fan	Motor HP	1/4	1/4	
	Motor rpm	825	825	
	Total motor watts	250	250	
	Diameter - in. / No. of blades	24 - 3	24 - 3	
	Total air volume - cfm	3700	3700	
Indoor Coil	Net face area - sq. ft.	7.78	7.78	
	Tube diameter - in.	3/8	3/8	
	Number of rows	3	3	
	Fins per inch	14	14	
	Drain Connection (no. and size) - in.	(1) 3/4 npt	(1) 3/4 npt	
	Expansion device type	Balanced Port Thermostatic Expansion Valve, removable power head		
Indoor Blower	Nominal Motor HP	.25	.25	
	Wheel nominal diameter x width - in.	10 x 10	10 x 10	
Filters	Type	Disposable		
	Number and size - in.	(4) 16 x 20 x 2		
Electrical Characteristics - 60 Hz		208/230V 1 phase	208/230V 1 phase	

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

¹ Certified in accordance with the USE certification program, which is based on ARI Standard 210/240; 95°F outdoor air temperature and 80°F db/67°F wb entering evaporator air; minimum external duct static pressure.

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

SPECIFICATIONS - DIRECT DRIVE BLOWER							3 - 5 TON
General Data	Nominal Tonnage	3 Ton		4 Ton		5 Ton	
	Model No.	TGA036B2D	TGA036S2D	TGA048B2D	TGA048S2D	TGA060B2D	TGA060S2D
Cooling Performance	Efficiency Type	Basic	Standard	Basic	Standard	Basic	Standard
	Gross Cooling Capacity - Btuh	37,400	38,000	49,500	50,000	59,800	62,000
	¹ Net Cooling Capacity - Btuh	36,000	36,600	47,000	48,000	57,000	59,000
	ARI Rated Air Flow - cfm	1200	1200	1750	1600	1850	1800
	² Sound Rating Number (dB)	81	75	75	75	82	82
	Total Unit Power - kW	3.6	3.2	5.0	4.4	6.7	5.4
Refrigerant	¹ SEER (Btuh/Watt)	11.0	13.0	10.0	13.0	10.0	13.0
	¹ EER (Btuh/Watt)	10.0	11.6	9.4	11.5	8.5	11.0
	Type	R-22	R-22	R-22	R-22	R-22	R-22
Gas Heating Options - See Page 13	Charge Furnished	6 lbs. 0 oz.	7 lbs. 12 oz.	6 lbs. 12 oz.	9 lbs. 12 oz.	6 lbs. 4 oz.	11 lbs. 5 oz.
	Standard or Medium		Standard, Medium, or High (1 or 2 stage)				
Compressor Type (one per unit)		Reciprocating	Scroll	Scroll	Scroll	Scroll	Scroll
Outdoor Coil	Net face area - sq. ft.	15.6	15.6	15.6	15.6	15.6	15.6
	Tube diameter - in.	3/8	3/8	3/8	3/8	3/8	3/8
	Number of rows	1	1.5	1	2	1	2
	Fins per inch	20	20	20	20	20	20
Outdoor Coil Fan	Motor HP	1/4	1/4	1/4	1/4	1/3	1/3
	Motor rpm	825	825	825	825	1075	1075
	Total motor watts	250	250	250	250	370	370
	Diameter - in. / No. of blades	24 - 3	24 - 3	24 - 3	24 - 3	24 - 3	24 - 3
	Total air volume - cfm	3700	3500	3700	3300	4700	4300
Indoor Coil	Net face area - sq. ft.	7.78	7.78	7.78	7.78	7.78	7.78
	Tube diameter - in.	3/8	3/8	3/8	3/8	3/8	3/8
	Number of rows	2	3	2	3	2	4
	Fins per inch	14	14	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	(1) 3/4 npt	(1) 3/4 npt
	Expansion device type	Balanced Port Thermostatic Expansion Valve, removable power head					
Indoor Blower	Nominal Motor HP	.5	.5	.5	.5	.75	.75
	Wheel nominal diameter x width - in.	10 x 10	10 x 10	10 x 10	10 x 10	11 x 10	11 x 10
Filters	Type	Disposable					
	Number and size - in.	(4) 16 x 20 x 2					
Electrical Characteristics - 60 Hz		208/230V & 460V 3 phase	208/230V 1 phase 208/230V, 460V & 575V 3 phase	208/230V & 460V 3 phase	208/230V 1 phase 208/230V, 460V & 575V 3 phase	208/230V & 460V 3 phase	208/230V 1 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 ARI Standard 210/240; 95°F outdoor air temperature and 80°F db/67°F wb entering evaporator air; minimum external duct static pressure.

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

SPECIFICATIONS - BELT DRIVE BLOWER
3 - 4 TON

General Data	Nominal Tonnage Model No. Efficiency Type	3 Ton		4 Ton			
		TGA036B2B	TGA036S2B	TGA048B2B	TGA048S2B		
		Basic	Standard	Basic	Standard		
Cooling Performance	Gross Cooling Capacity - Btuh	37,400	38,000	49,500	50,000		
	¹ Net Cooling Capacity - Btuh	36,000	36,600	47,000	48,000		
	ARI Rated Air Flow - cfm	1200	1200	1750	1600		
	² Sound Rating Number (dB)	81	75	75	75		
	Total Unit Power - kW	3.6	3.2	5.0	4.4		
Refrigerant	¹ SEER (Btuh/Watt)	11.0	13.0	10.0	13.0		
	¹ EER (Btuh/Watt)	10.0	11.6	9.4	11.5		
	Type	R-22	R-22	R-22	R-22		
Gas Heating Options - See Page 13	Charge Furnished	6 lbs. 0 oz.	7 lbs. 12 oz.	6 lbs. 12 oz.	9 lbs. 12 oz.		
	Standard or Medium		Standard, Medium, or High (1 or 2 stage)				
Compressor Type (one per unit)		Reciprocating	Scroll	Scroll	Scroll		
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	1	1.5	1	2		
	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	4700	3500	3700	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	2	3	2	3		
	Fins per 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					
³ Indoor Blower & Drive Selection	Nominal Motor HP	1.5 hp, 2 hp	1.5 hp, ⁴ 2 hp	1.5 hp, 2 hp	1.5 hp, ⁴ 2 hp		
	Maximum Usable Motor HP	1.72 hp, 2.3 hp	1.72 hp, 2.3 hp	1.72 hp, 2.3 hp	1.72 hp, 2.3 hp		
	Wheel nominal diameter x width - in.	10 x 10	10 x 10	10 x 10	10 x 10		
	Available Drive Kits	Drive Kit #1 - 673 - 1010 rpm Drive Kit #5 - 897 - 1346 rpm		Drive Kit #2 - 745 - 1117 rpm Drive Kit #6 - 1071 - 1429 rpm			
Filters	Type	Disposable					
	Number and size - in.	(4) 16 x 20 x 2					
Electrical Characteristics - 60 Hz		208/230V & 460V 3 phase	208/230V 1 phase 208/230V, 460V & 575V 3 phase	208/230V & 460V 3 phase	208/230V, 1 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 ARI Standard 210/240; 95°F outdoor air temperature and 80°F db/67°F wb entering evaporator air; minimum external duct static pressure.

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

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

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

SPECIFICATIONS - BELT DRIVE BLOWER
5 - 6 TON

General Data	Nominal Tonnage Model No. Efficiency Type	5 Ton		6 Ton
		TGA060B2B Basic	TGA060S2B Standard	TGA072S2B Standard
Cooling Performance	Gross Cooling Capacity - Btuh	59,800	62,000	75,000
	Net Cooling Capacity - Btuh	¹ 57,000	¹ 59,000	² 72,000
	ARI Rated Air Flow - cfm	1850	2000	2250
	³ Sound Rating Number (dB)	82	82	82
	Total Unit Power - kW	6.7	5.4	7.1
	SEER (Btuh/Watt)	¹ 10.0	¹ 13.0	-
	EER (Btuh/Watt)	¹ 8.5	¹ 11.0	² 10.1
Refrigerant	Type	R-22	R-22	R-22
	Charge Furnished	6 lbs. 4 oz.	11 lbs. 5 oz.	11 lbs. 4 oz.
Gas Heating Options - See Page 13		Standard, Medium, or High (1 or 2 stage)		
Compressor Type (one per unit)		Scroll	Scroll	Scroll
Outdoor Coil	Net face area - sq. ft.	15.6	15.6	19.27
	Tube diameter - in.	3/8	3/8	3/8
	Number of rows	1	2	1.4
	Fins / inch	20	20	20
Outdoor Coil Fan	Motor HP	1/3	1/3	1/3
	Motor rpm	1075	1075	1075
	Total motor watts	370	370	405
	Diameter - in. / No. of blades	24 - 3	24 - 3	24 - 3
	Total air volume - cfm	4300	4300	4800
Indoor Coil	Net face area - sq. ft.	7.78	7.78	9.7
	Tube diameter - in.	3/8	3/8	3/8
	Number of rows	2	4	3
	Fins per inch	14	14	14
	Drain Connection (no. and size) - in.	(1) 3/4 NPT	(1) 3/4 NPT	(1) 3/4 NPT
⁴ Indoor Blower & Drive Selection	Expansion device type	Balanced Port Thermostatic Expansion Valve, removable power head		
	Nominal Motor HP	1.5 hp, 2 hp	1.5 hp, ⁵ 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
	Wheel nominal diameter x width - in.	10 x 10	10 x 10	10 x 10
	Available Drive Kits	Drive Kit #3 - 833 - 1250 rpm Drive Kit #7 - 1212 - 1548 rpm		
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 & 460V 3 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 ARI Standard 210/240; 95°F outdoor air temperature and 80°F db/67°F wb entering evaporator air; minimum external duct static pressure.

² Certified in accordance with the ULE certification program, which is based on ARI Standard 340/360; 95°F outdoor air temperature and 80°F db/67°F wb entering evaporator air; minimum external duct static pressure.

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

⁴ Using total air volume and system static pressure requirements determine from blower performance tables rpm and motor hp required. Maximum usable hp of motors furnished are shown. In Canada, nominal motor hp is also maximum usable motor hp output. If motors of comparable hp are used, be sure to keep within the service factor limitations outlined on the motor nameplate.

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

SPECIFICATIONS - GAS HEAT

Model No.	TGA024, TGA030	TGA036, TGA048, TGA060, TGA072	TGA048, TGA060, TGA072		
Heat Input Type	Standard (1 Stage)	Standard (1 Stage)	Medium (1 Stage)	High (1 Stage)	High (2 Stage)
Input - Btuh First Stage	65,000	65,000	105,000	150,000	105,000
Second Stage	---	---	---	---	150,000
Output - Btuh First Stage	52,000	52,000	84000	120,000	85,500
Second Stage	---	---	---	---	120,000
Temperature Rise Range	35 - 65°F	20 - 50°F	30 - 75°F	40 - 85°F	40 - 85°F
¹ AFUE	80%	80%	80%	80%	80%
Thermal Efficiency	80%	80%	80%	80%	81.5%/80%
Gas Supply Connections	1/2 in. NPT				
Rec. Gas Supply Pressure - Natural / LPG	7 in. w.g. / 11 in. w.g.				

¹ Annual Fuel Utilization Efficiency based on U.S. DOE test procedures and FTC labeling regulations.

HIGH ALTITUDE DERATE

NOTE - Units may be installed at altitudes up to 2000 ft. above sea level without any modifications.

At altitudes above 2000 ft. units must be derated to match information in the table shown.

At altitudes above 4500 ft. unit must be derated 2% for each 1000 ft. above sea level.

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

Heat Input Type	Altitude Feet	Gas Manifold Pressure in. w.g.		Input Rate (Btu/h)
		Natural Gas	LPG/Propane	
Standard (1 stage)	2001 - 4500	3.0	8.7	60,000
Medium (1 stage)	2001 - 4500	3.0	8.7	97,000
High (1 stage)	2001 - 4500	3.0	8.7	138,000
High (2 stage)	2001 - 4500	3.0/1.7	8.7/5.5	138,000/105,000

COOLING RATINGS

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

6 TON STANDARD EFFICIENCY - COOLING CAPACITY

TGA072S2

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														
cfm	L/s	kBtu/h	kW	75°F 24°C	80°F 27°C	85°F 29°C	75°F 24°C	80°F 27°C	85°F 29°C	75°F 24°C	80°F 27°C	85°F 29°C														
63°F (17°C)	1920	905	71.5	21.0	4.98	.65	.80	.97	68.9	20.2	5.57	.66	.82	.98	66.2	19.4	6.26	.67	.85	1.00	63.1	18.5	7.07	.68	.87	1.00
	2400	1135	74.4	21.8	5.05	.70	.90	1.00	71.7	21.0	5.64	.72	.92	1.00	68.8	20.2	6.33	.73	.95	1.00	65.7	19.3	7.14	.76	.97	1.00
	2880	1360	76.8	22.5	5.10	.76	.97	1.00	74.1	21.7	5.69	.79	.99	1.00	71.4	20.9	6.39	.81	1.00	1.00	68.4	20.0	7.21	.84	1.00	1.00
67°F (19°C)	1920	905	76.1	22.3	5.09	.51	.62	.76	73.4	21.5	5.68	.51	.63	.78	70.4	20.6	6.37	.52	.65	.80	67.1	19.7	7.17	.53	.66	.83
	2400	1135	78.7	23.1	5.14	.54	.67	.86	75.7	22.2	5.74	.54	.69	.88	72.5	21.2	6.44	.55	.71	.91	69.1	20.3	7.24	.56	.73	.94
	2880	1360	80.4	23.6	5.19	.56	.74	.94	77.4	22.7	5.78	.57	.76	.96	74.2	21.7	6.47	.58	.78	.98	70.6	20.7	7.28	.60	.81	1.00
71°F (22°C)	1920	905	81.2	23.8	5.21	.38	.49	.60	78.3	22.9	5.80	.38	.50	.61	75.2	22.0	6.50	.38	.50	.62	71.7	21.0	7.30	.39	.51	.64
	2400	1135	83.7	24.5	5.27	.39	.52	.65	80.6	23.6	5.87	.39	.53	.67	77.3	22.7	6.56	.40	.54	.68	73.6	21.6	7.37	.40	.55	.70
	2880	1360	85.4	25.0	5.31	.40	.56	.71	82.2	24.1	5.90	.41	.56	.73	78.7	23.1	6.60	.41	.57	.75	74.8	21.9	7.41	.42	.59	.79

BLOWER DATA - DIRECT DRIVE

2 - 2.5 TON

Blower tables include resistance for base unit with standard heat, 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 27.

2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.) See page 27.

External Static Pressure (in. w.g.)	Air Volume (cfm) at Various Blower Speeds									
	208 VOLTS			230 VOLTS			TGA024S and TGA030S			
	High	Medium	Low	High	Medium	Low	High	Medium	Low	
2 and 2.5 Ton Standard Efficiency (Down-Flow)									TGA024S and TGA030S	
0.0	1255	985	860	1420	1150	920				
0.1	1240	965	830	1410	1120	910				
0.2	1225	940	790	1400	1095	890				
0.3	1210	910	745	1390	1065	860				
0.4	1185	870	695	1365	1030	820				
0.5	1150	825	---	1335	985	770				
0.6	1100	775	---	1280	935	715				
0.7	1035	715	---	1210	865	---				
0.8	940	---	---	1115	780	---				
0.9	815	---	---	990	---	---				
1.0	---	---	---	830	---	---				
2 and 2.5 Ton Standard Efficiency (Horizontal)									TGA024S and TGA030S	
0.0	1190	935	815	1345	1090	875				
0.1	1175	915	785	1335	1065	865				
0.2	1160	890	750	1330	1035	845				
0.3	1145	860	705	1315	1010	815				
0.4	1125	825	660	1295	975	775				
0.5	1090	785	---	1265	935	730				
0.6	1045	735	---	1215	885	675				
0.7	980	680	---	1150	820	---				
0.8	890	---	---	1055	740	---				
0.9	775	---	---	935	---	---				
1.0	---	---	---	785	---	---				

BLOWER DATA - DIRECT DRIVE**3 - 4 TON**

Blower tables include resistance for base unit with standard heat, 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 27.

2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.) See page 27.

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 Basic Efficiency (Down-Flow)									TGA036B and TGA048B
0.0	2000	1660	1145	2200	1875	1330	2100	1780	1220
0.1	1935	1610	1150	2110	1810	1330	2045	1725	1220
0.2	1880	1565	1135	2040	1755	1310	1995	1665	1210
0.3	1830	1515	1100	1980	1700	1270	1945	1615	1185
0.4	1780	1470	1045	1925	1645	1215	1890	1560	1145
0.5	1720	1420	975	1860	1590	1145	1830	1510	1085
0.6	1645	1365	885	1785	1530	1060	1750	1465	1015
0.7	1550	1305	785	1680	1465	960	1655	1425	920
0.8	1425	1240	---	1540	1395	---	1530	1390	---
0.9	1265	1170	---	1360	1320	---	1380	1380	---
1.0	1055	---	---	1120	---	---	1185	---	---
3 and 4 Ton Basic Efficiency (Horizontal)									TGA036B and TGA048B
0.0	1895	1585	1090	2085	1790	1265	2100	1795	1265
0.1	1830	1530	1095	1995	1720	1260	2025	1725	1250
0.2	1775	1480	1080	1925	1660	1240	1960	1660	1235
0.3	1730	1430	1045	1870	1605	1205	1905	1610	1210
0.4	1680	1385	990	1820	1555	1150	1845	1560	1170
0.5	1620	1335	920	1755	1495	1085	1775	1510	1110
0.6	1540	1275	835	1670	1430	995	1695	1455	1025
0.7	1435	1205	730	1555	1355	890	1595	1395	905
0.8	1290	1115	---	1400	1255	---	1465	1320	---
0.9	1105	1010	---	1185	1135	---	1300	1230	---
1.0	860	---	---	910	---	---	1090	---	---
3 and 4 Ton Standard Efficiency (Down-Flow)									TGA036S and TGA048S
0.0	1965	1640	1150	2145	1845	1330	2070	1755	1220
0.1	1905	1595	1150	2070	1785	1325	2020	1700	1220
0.2	1855	1545	1130	2010	1735	1300	1970	1645	1205
0.3	1810	1500	1095	1955	1680	1260	1920	1595	1180
0.4	1755	1455	1035	1895	1625	1200	1865	1545	1135
0.5	1690	1405	965	1830	1570	1130	1795	1495	1075
0.6	1610	1350	875	1745	1510	1045	1715	1450	1000
0.7	1515	1290	775	1635	1445	945	1615	1410	910
0.8	1385	1220	---	1490	1370	---	1490	1375	---
0.9	1225	1150	---	1310	1290	---	1340	1360	---
1.0	1025	---	---	1075	---	---	1150	---	---
3 and 4 Ton Standard Efficiency (Horizontal)									TGA036S and TGA048S
0.0	1860	1565	1095	2030	1755	1265	2055	1765	1260
0.1	1805	1510	1090	1960	1695	1255	1990	1700	1245
0.2	1755	1465	1075	1900	1640	1235	1935	1640	1230
0.3	1710	1420	1035	1850	1585	1195	1875	1590	1200
0.4	1660	1370	985	1790	1535	1140	1815	1545	1160
0.5	1595	1320	910	1720	1475	1070	1745	1495	1095
0.6	1510	1260	825	1630	1410	980	1660	1440	1005
0.7	1400	1190	720	1510	1330	880	1555	1375	885
0.8	1255	1100	---	1350	1230	---	1425	1295	---
0.9	1065	990	---	1140	1110	---	1260	1200	---
1.0	830	---	---	875	---	---	1055	---	---

BLOWER DATA - DIRECT DRIVE**5 TON**

Blower tables include resistance for base unit with standard heat, 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 27.

2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.) See page 27.

External Static Pressure (in. w.g.)	Air Volume (cfm) at Various Blower Speeds					
	208 VOLTS		230 VOLTS		460/575 VOLTS	
	High	Low	High	Low	High	Low
5 Ton Basic Efficiency (Down-Flow)						TGA060B
0.0	2260	1660	2445	1960	2385	1735
0.1	2235	1670	2420	1950	2270	1725
0.2	2205	1680	2390	1945	2185	1720
0.3	2180	1685	2360	1930	2130	1725
0.4	2150	1680	2325	1915	2095	1725
0.5	2115	1665	2280	1890	2070	1715
0.6	2070	1645	2230	1855	2045	1700
0.7	2015	1605	2165	1810	2015	1665
0.8	1950	1545	2090	1745	1965	1610
0.9	1865	1465	2000	1660	1895	1530
1.0	1765	---	1890	---	1790	---
5 Ton Basic Efficiency (Horizontal)						TGA060B
0.0	2145	1595	2320	1880	2370	1790
0.1	2110	1615	2285	1885	2315	1815
0.2	2080	1625	2250	1880	2270	1825
0.3	2040	1620	2210	1860	2225	1820
0.4	2000	1605	2160	1830	2175	1800
0.5	1950	1580	2105	1790	2125	1770
0.6	1895	1540	2040	1740	2070	1725
0.7	1830	1485	1965	1675	2005	1665
0.8	1755	1420	1880	1605	1930	1595
0.9	1665	1340	1785	1520	1840	1505
1.0	1565	---	1675	---	1735	---
5 Ton Standard Efficiency (Down-Flow)						TGA060S
0.0	2230	1670	2410	1950	2240	1730
0.1	2205	1680	2380	1945	2175	1725
0.2	2175	1685	2350	1930	2130	1725
0.3	2145	1685	2315	1915	2095	1725
0.4	2110	1670	2270	1890	2070	1720
0.5	2065	1650	2215	1860	2040	1705
0.6	2015	1615	2155	1815	2010	1675
0.7	1950	1565	2085	1755	1960	1630
0.8	1875	1495	2000	1685	1900	1560
0.9	1780	1410	1900	1595	1810	1465
1.0	1675	---	1785	---	1690	---
5 Ton Standard Efficiency (Horizontal)						TGA060S
0.0	2110	1615	2280	1885	2305	1815
0.1	2075	1625	2245	1880	2260	1825
0.2	2040	1625	2205	1860	2215	1820
0.3	2000	1610	2155	1835	2170	1805
0.4	1950	1590	2100	1800	2120	1775
0.5	1900	1555	2040	1750	2065	1735
0.6	1835	1505	1965	1695	2005	1680
0.7	1765	1450	1890	1625	1935	1615
0.8	1685	1375	1800	1545	1855	1535
0.9	1595	1295	1700	1460	1755	1445
1.0	1495	---	1595	---	1645	---

BLOWER DATA - BELT DRIVE**3 TON**

Blower tables include resistance for base unit with standard heat, 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 27.

2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.) See page 27.

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

0.10 to 1.00 in. w.g.**3 Ton Standard Efficiency (Down-Flow)****TGA036S**

Air Volume (cfm)	External Static (in.w.g.)								Kit 5							
	0.10 RPM BHP		0.20 RPM BHP		0.30 RPM BHP		0.40 RPM BHP									
	Field Furnished		Low Static - Drive Kit #1													
900	500	0.10	605	0.15	705	0.25	790	0.30	870	0.40	945	0.50	1010	0.60	1075	0.75
1000	535	0.15	630	0.20	720	0.25	805	0.35	885	0.45	955	0.55	1020	0.65	1085	0.80
1100	570	0.15	655	0.20	740	0.30	820	0.40	895	0.45	970	0.60	1035	0.70	1095	0.80
1200	605	0.20	685	0.25	765	0.35	840	0.40	915	0.50	980	0.60	1045	0.75	1110	0.85
1300	640	0.25	715	0.30	790	0.35	865	0.45	930	0.55	1000	0.65	1060	0.80	1120	0.90
1400	680	0.30	750	0.35	820	0.45	885	0.50	955	0.60	1015	0.70	1080	0.85	1135	0.95
1500	720	0.35	785	0.40	850	0.50	910	0.55	975	0.65	1035	0.80	1095	0.90	1155	1.05

0.90 to 1.60 in. w.g.**3 Ton Standard Efficiency (Down-Flow)****TGA036S**

Air Volume (cfm)	External Static (in.w.g.)								Field Furnished							
	0.90 RPM BHP		1.0 RPM BHP		1.10 RPM BHP		1.20 RPM BHP									
	High Static - Drive Kit #5		Low Static - Drive Kit #1													
900	1135	0.85	1190	1.00	1245	1.10	1295	1.25	1345	1.40	1390	1.55	1435	1.70	1480	1.85
1000	1145	0.90	1200	1.05	1255	1.15	1305	1.30	1355	1.45	1400	1.60	1445	1.75	1490	1.90
1100	1155	0.95	1210	1.10	1265	1.20	1315	1.35	1365	1.50	1410	1.65	1455	1.80	1500	1.95
1200	1165	1.00	1225	1.15	1275	1.25	1325	1.40	1375	1.55	1425	1.75	1470	1.90	1510	2.05
1300	1180	1.05	1235	1.20	1285	1.30	1340	1.50	1385	1.65	1435	1.80	1480	1.95	1525	2.15
1400	1195	1.10	1245	1.25	1300	1.40	1350	1.55	1400	1.70	1445	1.85	1490	2.05	1535	2.20
1500	1210	1.15	1260	1.30	1315	1.45	1360	1.60	1410	1.75	1455	1.95	1500	2.10	1545	2.30

0.10 to 0.80 in. w.g.**3 Ton Standard Efficiency (Horizontal)****TGA036S**

Air Volume (cfm)	External Static (in.w.g.)								Field Furnished							
	0.10 RPM BHP		0.20 RPM BHP		0.30 RPM BHP		0.40 RPM BHP									
	Field Furnished		Low Static - Drive Kit #1													
900	490	0.10	580	0.15	665	0.20	745	0.25	815	0.30	880	0.40	940	0.45	1000	0.55
1000	525	0.10	610	0.15	690	0.25	760	0.30	830	0.35	895	0.45	955	0.50	1010	0.60
1100	560	0.15	640	0.20	710	0.25	780	0.30	850	0.40	910	0.45	970	0.55	1025	0.65
1200	600	0.20	670	0.25	740	0.30	805	0.35	870	0.45	930	0.50	985	0.60	1040	0.70
1300	635	0.25	705	0.30	770	0.35	830	0.40	890	0.50	950	0.55	1005	0.65	1055	0.75
1400	675	0.30	740	0.35	800	0.40	860	0.50	915	0.55	970	0.65	1025	0.70	1075	0.80
1500	715	0.35	775	0.40	830	0.45	885	0.55	940	0.60	995	0.70	1045	0.80	1095	0.90

0.90 to 1.60 in. w.g.**3 Ton Standard Efficiency (Horizontal)****TGA036S**

Air Volume (cfm)	External Static (in.w.g.)								Field							
	0.90 RPM BHP		1.0 RPM BHP		1.10 RPM BHP		1.20 RPM BHP									
	High Static - Drive Kit #5		Low Static - Drive Kit #1													
900	1055	0.60	1105	0.70	1155	0.80	1205	0.90	1250	0.95	1295	1.05	1335	1.15	1375	1.25
1000	1065	0.65	1115	0.75	1165	0.85	1215	0.95	1260	1.05	1305	1.15	1345	1.20	1385	1.30
1100	1080	0.70	1130	0.80	1175	0.90	1225	1.00	1270	1.10	1315	1.20	1355	1.30	1395	1.40
1200	1090	0.75	1140	0.85	1190	0.95	1235	1.05	1280	1.15	1325	1.25	1365	1.35	1405	1.45
1300	1105	0.80	1155	0.90	1205	1.00	1250	1.10	1295	1.25	1335	1.35	1375	1.45	1415	1.55
1400	1125	0.90	1170	1.00	1220	1.10	1265	1.20	1305	1.30	1350	1.40	1390	1.50	1430	1.65
1500	1145	1.00	1190	1.05	1235	1.15	1280	1.30	1320	1.40	1365	1.50	1405	1.60	1440	1.70

BLOWER DATA - BELT DRIVE
4 TON

Blower tables include resistance for base unit with standard heat, 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 27.

2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.) See page 27.

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

0.10 to 0.80 in. w.g.
4 Ton Basic Efficiency (Down-Flow)
TGA048B

Air Volume (cfm)	External Static (in.w.g.)									
	0.10		0.20		0.30		0.40		0.50	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
Field Furnished	Low Static - Drive Kit #2									
1200	590	0.15	670	0.25	750	0.30	825	0.35	895	0.45
1300	625	0.20	700	0.25	775	0.35	845	0.40	915	0.50
1400	660	0.25	730	0.30	800	0.40	870	0.45	935	0.55
1500	695	0.30	765	0.35	830	0.45	895	0.50	955	0.60
1600	735	0.35	795	0.40	860	0.50	920	0.60	980	0.65
1700	775	0.40	830	0.50	890	0.55	950	0.65	1005	0.75
1800	815	0.50	870	0.55	925	0.65	980	0.75	1030	0.80
1900	850	0.55	905	0.65	955	0.70	1010	0.80	1060	0.90
2000	890	0.65	940	0.70	990	0.80	1040	0.90	1090	1.00
									1140	1.10
									1185	1.20
									1235	1.35

0.90 to 1.60 in. w.g.
4 Ton Basic Efficiency (Down-Flow)
TGA048B

Air Volume (cfm)	External Static (in.w.g.)									
	0.90		1.00		1.10		1.20		1.30	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
High Static - Drive Kit #6	Field Furnished									
1200	1140	0.85	1195	1.00	1250	1.10	1300	1.25	1345	1.35
1300	1155	0.90	1210	1.05	1260	1.15	1310	1.30	1355	1.40
1400	1170	1.00	1220	1.10	1270	1.20	1320	1.35	1370	1.50
1500	1185	1.05	1235	1.15	1285	1.30	1335	1.40	1380	1.55
1600	1200	1.10	1250	1.25	1300	1.35	1345	1.50	1395	1.65
1700	1220	1.20	1270	1.30	1315	1.45	1360	1.55	1405	1.70
1800	1235	1.25	1285	1.40	1335	1.55	1380	1.65	1420	1.80
1900	1260	1.35	1305	1.50	1350	1.60	1395	1.75	1440	1.90
2000	1280	1.45	1325	1.60	1370	1.70	1415	1.85	1455	2.00
									1500	2.15
									1540	2.30
									1580	2.45

0.10 to 0.80 in. w.g.
4 Ton Basic Efficiency (Horizontal)
TGA048B

Air Volume (cfm)	External Static (in.w.g.)									
	0.10		0.20		0.30		0.40		0.50	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
Field Furnished	Low Static - Drive Kit #2									
1200	580	0.20	655	0.20	725	0.30	790	0.35	855	0.40
1300	620	0.20	685	0.25	750	0.30	815	0.40	875	0.45
1400	655	0.25	720	0.30	780	0.35	840	0.45	895	0.50
1500	695	0.30	750	0.35	810	0.45	865	0.50	920	0.55
1600	735	0.35	790	0.45	840	0.50	895	0.55	945	0.65
1700	775	0.45	825	0.50	875	0.55	925	0.65	975	0.70
1800	815	0.50	860	0.60	910	0.65	955	0.70	1005	0.80
1900	855	0.60	900	0.65	945	0.75	990	0.80	1035	0.90
2000	895	0.70	935	0.75	980	0.85	1020	0.90	1065	1.00
									1110	1.05
									1150	1.15
									1190	1.25

0.90 to 1.60 in. w.g.
4 Ton Basic Efficiency (Horizontal)
TGA048B

Air Volume (cfm)	External Static (in.w.g.)									
	0.90		1.00		1.10		1.20		1.30	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
Kit 2	High Static - Drive Kit #6									
1200	1085	0.70	1135	0.75	1185	0.85	1230	0.95	1275	1.05
1300	1095	0.75	1145	0.80	1195	0.90	1240	1.00	1285	1.10
1400	1110	0.80	1160	0.90	1205	0.95	1255	1.05	1295	1.15
1500	1125	0.85	1175	0.95	1220	1.05	1265	1.15	1310	1.25
1600	1145	0.95	1190	1.05	1235	1.15	1280	1.20	1325	1.35
1700	1165	1.05	1210	1.10	1255	1.20	1295	1.30	1340	1.40
1800	1185	1.10	1230	1.20	1270	1.30	1315	1.40	1355	1.50
1900	1210	1.25	1250	1.30	1290	1.40	1335	1.50	1370	1.60
2000	1235	1.35	1275	1.45	1315	1.55	1355	1.65	1390	1.75
									1430	1.85
									1465	1.95
									1505	2.05

BLOWER DATA - BELT DRIVE**6 TON**

Blower tables include resistance for base unit with standard heat, 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 27.

2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.) See page 27.

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

0.10 to 0.80 in. w.g.**6 Ton Standard Efficiency (Down-Flow)****TGA072S**

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 #4									
1900	840	0.45	885	0.50	930	0.55	980	0.60	1025	0.65	1070	0.70	1115	0.75	1155	0.80			
2000	875	0.55	920	0.55	965	0.60	1010	0.65	1055	0.75	1100	0.80	1140	0.85	1180	0.90			
2100	915	0.60	960	0.65	1000	0.70	1045	0.75	1085	0.80	1130	0.85	1170	0.95	1210	1.00			
2200	955	0.70	995	0.75	1040	0.80	1080	0.85	1120	0.90	1160	0.95	1200	1.05	1235	1.10			
2300	995	0.80	1035	0.85	1075	0.90	1115	0.95	1150	1.00	1190	1.05	1230	1.15	1265	1.20			
2400	1035	0.90	1075	0.95	1110	1.00	1150	1.05	1185	1.10	1225	1.20	1260	1.25	1295	1.30			
2500	1075	1.00	1110	1.05	1150	1.10	1185	1.15	1220	1.25	1255	1.30	1290	1.35	1325	1.45			
2600	1115	1.10	1150	1.20	1185	1.25	1220	1.30	1255	1.35	1290	1.45	1325	1.50	1355	1.55			
2700	1155	1.25	1190	1.30	1225	1.35	1255	1.45	1290	1.50	1325	1.55	1355	1.65	1390	1.70			
2800	1195	1.40	1230	1.45	1260	1.50	1295	1.60	1325	1.65	1360	1.70	1390	1.80	1420	1.85			
2900	1235	1.55	1270	1.60	1300	1.65	1330	1.75	1360	1.80	1395	1.90	1425	1.95	1455	2.00			

0.90 to 1.60 in. w.g.**6 Ton Standard Efficiency (Down-Flow)****TGA072S**

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 - Kit #4										High Static - Drive Kit #8									
1900	1200	0.90	1240	0.95	1280	1.00	1320	1.05	1355	1.15	1395	1.20	1430	1.25	1465	1.35			
2000	1225	0.95	1265	1.05	1300	1.10	1340	1.15	1375	1.20	1410	1.30	1450	1.35	1485	1.45			
2100	1250	1.05	1285	1.10	1325	1.20	1360	1.25	1400	1.35	1435	1.40	1470	1.45	1500	1.55			
2200	1275	1.15	1310	1.20	1350	1.30	1385	1.35	1420	1.45	1455	1.50	1490	1.60	1525	1.65			
2300	1305	1.25	1340	1.35	1375	1.40	1410	1.45	1445	1.55	1480	1.60	1510	1.70	1545	1.75			
2400	1330	1.35	1365	1.45	1400	1.50	1435	1.60	1470	1.65	1500	1.75	1535	1.80	1565	1.90			
2500	1360	1.50	1395	1.55	1430	1.65	1460	1.70	1495	1.80	1525	1.85	1560	1.95	1590	2.05			
2600	1390	1.65	1425	1.70	1455	1.80	1490	1.85	1520	1.95	1550	2.00	1585	2.10	1615	2.20			
2700	1420	1.80	1455	1.85	1485	1.95	1515	2.00	1550	2.10	1580	2.15	1610	2.25	1640	2.35			
2800	1455	1.95	1485	2.00	1515	2.10	1545	2.15	1575	2.25	1605	2.35	1635	2.40	1665	2.50			
2900	1485	2.10	1515	2.15	1545	2.25	1575	2.35	1605	2.40	1635	2.50	1660	2.60	1690	2.65			

BLOWER DATA - BELT DRIVE

6 TON

Blower tables include resistance for base unit with standard heat, 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 27.

2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.) See page 27.

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

0.10 to 0.80 in. w.g.

6 Ton Standard Efficiency (Horizontal)

TGA072S

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 #4															
1900	795	0.45	850	0.55	905	0.60	960	0.70	1010	0.75	1060	0.85	1110	0.90	1160	1.00
2000	835	0.55	885	0.60	935	0.70	985	0.75	1035	0.85	1085	0.90	1135	1.00	1180	1.10
2100	870	0.65	920	0.70	970	0.75	1015	0.85	1065	0.90	1110	1.00	1160	1.10	1205	1.20
2200	905	0.70	955	0.80	1000	0.85	1045	0.95	1095	1.00	1140	1.10	1185	1.20	1225	1.30
2300	945	0.80	990	0.90	1035	0.95	1080	1.05	1120	1.10	1165	1.20	1210	1.30	1250	1.40
2400	980	0.90	1025	1.00	1065	1.05	1110	1.15	1150	1.25	1195	1.30	1235	1.40	1275	1.50
2500	1020	1.05	1060	1.10	1100	1.20	1140	1.25	1180	1.35	1225	1.45	1265	1.55	1305	1.65
2600	1055	1.15	1095	1.25	1135	1.30	1175	1.40	1215	1.50	1255	1.60	1290	1.65	1330	1.80
2700	1095	1.30	1130	1.35	1170	1.45	1210	1.55	1245	1.60	1285	1.70	1320	1.80	1360	1.95
2800	1130	1.45	1170	1.50	1205	1.60	1240	1.70	1280	1.80	1315	1.85	1350	1.95	1385	2.05
2900	1170	1.60	1205	1.65	1240	1.75	1275	1.85	1310	1.95	1345	2.05	1380	2.15	1415	2.25

0.90 to 1.60 in. w.g.

6 Ton Standard Efficiency (Horizontal)

TGA072S

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 #4	High Static - Drive Kit #8															
1900	1205	1.10	1250	1.20	1295	1.30	1340	1.45	1380	1.55	1420	1.65	1460	1.75	1500	1.90
2000	1225	1.20	1270	1.30	1315	1.40	1355	1.50	1400	1.65	1440	1.75	1475	1.85	1515	2.00
2100	1250	1.30	1290	1.40	1335	1.50	1375	1.60	1415	1.75	1455	1.85	1495	2.00	1530	2.10
2200	1270	1.40	1310	1.50	1355	1.60	1395	1.75	1435	1.85	1475	1.95	1510	2.10	1550	2.20
2300	1295	1.50	1335	1.60	1375	1.70	1415	1.85	1455	1.95	1490	2.05	1530	2.20	1565	2.35
2400	1320	1.65	1355	1.75	1395	1.85	1435	1.95	1475	2.10	1510	2.20	1545	2.30	1585	2.45
2500	1345	1.75	1380	1.85	1420	2.00	1455	2.10	1495	2.20	1530	2.35	1565	2.45	1600	2.60
2600	1370	1.90	1405	2.00	1445	2.10	1480	2.25	1515	2.35	1550	2.50	1585	2.60	1620	2.75
2700	1395	2.05	1430	2.15	1470	2.25	1505	2.40	1540	2.50	1575	2.65	1610	2.75	1640	2.90
2800	1425	2.20	1460	2.30	1495	2.45	1530	2.55	1565	2.70	1595	2.80	1630	2.95	1665	3.05
2900	1450	2.35	1485	2.45	1520	2.60	1555	2.70	1585	2.85	1620	2.95	1655	3.10	1685	3.25

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

BLOWER DATA

FACTORY INSTALLED BELT DRIVE KIT SPECIFICATIONS

Nominal	Maximum	RPM Range							
		Drive 1	Drive 2	Drive 3	Drive 4	Drive 5	Drive 6	Drive 7	Drive 8
1.5	1.7	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	Gas Heat	
		Medium Input	High Input
800	0.04	0.02	0.02
1000	0.04	0.02	0.02
1200	0.04	0.02	0.02
1400	0.04	0.02	0.03
1600	0.04	0.03	0.04
1800	0.05	0.03	0.05
2000	0.05	0.04	0.06
2200	0.05	0.04	0.07
2400	0.05	0.05	0.08
2600	0.06	0.05	0.09
2800	0.06	0.06	0.10
3000	0.06	0.07	0.11

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.	
	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
Model No.	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.	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, 036S and 048	63	66	70	71	68	62	53	75
036B	66	73	73	74	70	67	63	81
060 and 072	67	72	77	76	73	68	61	82

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

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

ELECTRICAL DATA

2 - 2.5 TON

DIRECT DRIVE BLOWER Efficiency	TGA024S Standard	TGA030S Standard
Voltage - 60hz	208/230V-1ph	208/230V-1ph
Compressor	Rated Load Amps Locked Rotor Amps	10.4 54
Outdoor Fan Motor	Full Load Amps Locked Rotor Amps	1.7 3.1
Service Outlet 115V GFI		15
Indoor Blower Motor	Horsepower Rated Load Amps Locked Rotor Amps	.25 1.7 2.2
¹ Maximum Overcurrent Protection	Unit Only	25
² Minimum Circuit Ampacity	Unit Only	17
Disconnect Kit	Standard Access Door Hinged	T1DISC080A-1 (20W17) T1DISC080AH1 (20W23)
		T1DISC080A-1 (20W17) T1DISC080AH1 (20W23)

ELECTRICAL DATA

3 TON

BELT OR DIRECT DRIVE BLOWER Efficiency	TGA036B Basic	TGA036S Standard
Voltage - 60hz	208/230V-3ph	460V-3ph
Compressor	Rated Load Amps Locked Rotor Amps	10.3 75.0
Outdoor Fan Motor	Full Load Amps Locked Rotor Amps	1.7 3.1
Power Exhaust Fan	Horsepower Full Load Amps Locked Rotor Amps	(1) 3/4 5.0 7.8
Service Outlet 115V GFI	15	15
Indoor Blower Motor	Horsepower Rated Load Amps Locked Rotor Amps	.5 1.5 2 3.1 5.7 7.5 6.8 40 46.9
¹ Maximum Overcurrent Protection	Unit Only with power exhaust	15 15 15 30 35 35
² Minimum Circuit Ampacity	Unit Only with power exhaust	10 10 23 12 13 28
Disconnect Kit	Standard Access Door Hinged	T1DISC080A-1 (20W17) T1DISC080AH1 (20W23)
		T1DISC080A-1 (20W17) T1DISC080AH1 (20W23)

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

¹ HACR type breaker or fuse.

² Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

ELECTRICAL DATA
4 TON

BELT OR DIRECT DRIVE BLOWER Efficiency		TGA048B Basic						TGA048S Standard										
Voltage - 60hz		208/230V-3ph			460V-3ph			208/230V-1ph			208/230V-3ph			460V-3ph				
Compressor	Rated Load Amps	12.8			6.4			20.2			12.2			6.1				
	Locked Rotor Amps	91.0			46.0			137.0			83.1			41.0				
Outdoor Fan Motor	Full Load Amps	1.7			1.1			1.7			1.7			1.1				
	Locked Rotor Amps	3.1			2.2			3.1			3.1			2.2				
Power Exhaust Fan	Horsepower	(1) 3/4			(1) 3/4			(1) 3/4			(1) 3/4			(1) 3/4				
	Full Load Amps	5.0			2.2			5.0			5.0			2.2				
	Locked Rotor Amps	7.8			3.4			7.8			7.8			3.4				
Service Outlet 115V GFI		15			15			15			15			15				
Indoor Blower Motor	Horsepower	.5	1.5	2	.5	1.5	2	.5	1.5	2	.5	1.5	2	.5	1.5	2		
	Rated Load Amps	3.1	5.7	7.5	1.5	2.8	3.4	3.1	11.5	3.1	5.7	7.5	1.5	2.8	3.4	1.5	2.4	2.7
	Locked Rotor Amps	6.8	40	46.9	3.8	20	20.4	6.8	55	6.8	40	46.9	3.8	20	20.4	3.8	15	16.2
¹ Maximum Overcurrent Protection	Unit Only	30	35	35	15	15	15	50	50	30	30	35	15	15	15	15	15	
	with power exhaust	35	40	40	15	20	20	50	60	35	35	40	15	15	20	15	15	
² Minimum Circuit Ampacity	Unit Only	21	24	26	11	12	13	31	39	21	23	25	11	12	13	8	9	9
	with power exhaust	26	29	31	13	15	15	36	44	26	28	30	13	14	15	9	10	11
Disconnect Kit	Standard Access Door	T1DISC080A-1 (20W17)						T1DISC080A-1 (20W17)										
	Hinged	T1DISC080AH1 (20W23)						T1DISC080AH1 (20W23)										

ELECTRICAL DATA
5 TON

BELT OR DIRECT DRIVE BLOWER Efficiency		TGA060B Basic						TGA060S Standard										
Voltage - 60hz		208/230V-3ph			460V-3ph			208/230V-1ph			208/230V-3ph			460V-3ph				
Compressor	Rated Load Amps	18.6			9.0			25.3			15.4			7.1				
	Locked Rotor Amps	128.0			63.0			141.0			110.0			52.0				
Outdoor Fan Motor	Full Load Amps	2.4			1.3			2.4			2.4			1.3				
	Locked Rotor Amps	4.7			2.4			4.7			4.7			2.4				
Power Exhaust Fan	Horsepower	(1) 3/4			(1) 3/4			(1) 3/4			(1) 3/4			(1) 3/4				
	Full Load Amps	5.0			2.2			5.0			5.0			2.2				
	Locked Rotor Amps	7.8			3.4			7.8			7.8			3.4				
Service Outlet 115V GFI		15			15			15			15			15				
Indoor Blower Motor	Horsepower	.75	1.5	2	.75	1.5	2	.75	1.5	.75	1.5	2	.75	1.5	2	.75	1.5	2
	Rated Load Amps	4.2	5.7	7.5	2.2	2.8	3.4	4.2	11.5	4.2	5.7	7.5	2.2	2.8	3.4	2.2	2.4	2.7
	Locked Rotor Amps	9.6	40	46.9	5.2	20	20.4	9.6	55	9.6	40	46.9	5.2	20	20.4	5.2	15	16.2
¹ Maximum Overcurrent Protection	Unit Only	45	45	50	20	20	20	60	70	40	40	40	15	20	20	15	15	15
	with power exhaust	50	50	50	25	25	25	60	70	45	45	45	20	20	20	15	15	15
² Minimum Circuit Ampacity	Unit Only	30	32	34	15	16	16	39	46	26	28	30	13	13	14	10	10	11
	with power exhaust	35	37	39	17	18	19	44	51	31	33	35	15	16	16	12	12	12
Disconnect Kit	Standard Access Door	T1DISC080A-1 (20W17)						T1DISC080A-1 (20W17)										
	Hinged	T1DISC080AH1 (20W23)						T1DISC080AH1 (20W23)										

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

¹ HACR type breaker or fuse.

² Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

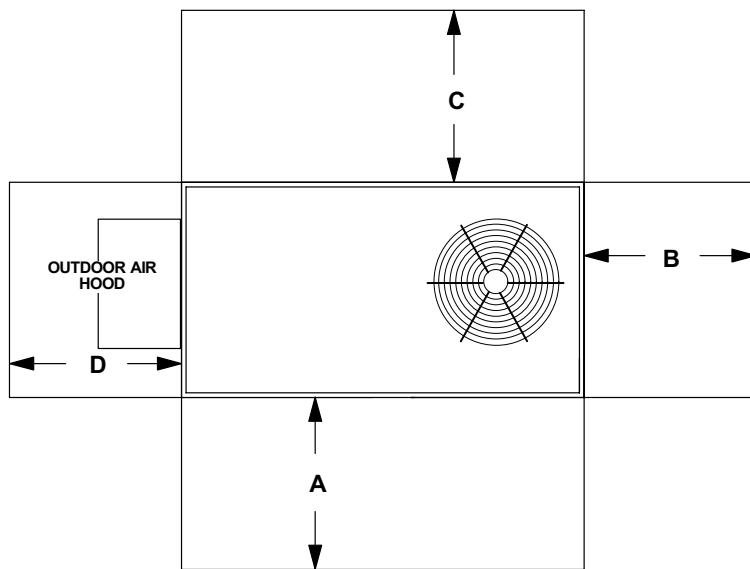
ELECTRICAL DATA**6 TON**

BELT DRIVE BLOWER		TGA072S Standard					
Efficiency							
Voltage - 60hz		208/230V-3ph			460V-3ph		575V-3ph
Compressor	Rated Load Amps	18.6		9.0		7.4	
	Locked Rotor Amps	156.0		75.0		54.0	
Outdoor Fan Motor	Full Load Amps	2.4		1.3		1.0	
	Locked Rotor Amps	4.7		2.4		1.9	
Power Exhaust Fan	Horsepower	(1) 3/4		(1) 3/4		(1) 3/4	
	Full Load Amps	5.0		2.2		1.5	
	Locked Rotor Amps	7.8		3.4		2.9	
Service Outlet 115V GFI		15			15		15
Indoor Blower Motor	Horsepower	1.5	2	1.5	2	1.5	2
	Rated Load Amps	5.7	7.5	2.8	3.4	2.4	2.7
	Locked Rotor Amps	40	46.9	20	20.4	15	16.2
1 Maximum Overcurrent Protection	Unit Only with power exhaust	50	50	20	25	20	20
2 Minimum Circuit Ampacity	Unit Only with power exhaust	32	34	16	16	13	13
		37	39	18	19	15	15
Disconnect Kit	Standard Access Door Hinged	T1DISC080N-1 (20W20) T1DISC080NH1 (20W26)					

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

1 HACR type breaker or fuse.

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

UNIT CLEARANCES - INCHES (MM)

1 Unit Clearance	A in. mm	B in. mm	C in. mm	D in. mm	Top Clearance
Service Clearance	48 1219	36 914	36 914	36 914	Unobstructed
Clearance to Combustibles	36 914	1 25	1 25	1 25	
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.

Clearance to Combustibles - Required clearance to combustible material.

Minimum Operation Clearance - Required clearance for proper unit operation.

WEIGHT DATA

Model Number	Net				Shipping			
	Base		Max.		Base		Max.	
	Ibs.	kg	Ibs.	kg	Ibs.	kg	Ibs.	kg
024S	530	240	630	286	590	268	699	317
030S	533	242	633	287	593	269	702	318
036B	551	250	651	295	611	277	720	327
036S	547	248	647	293	607	275	716	325
048B	537	244	648	294	597	271	717	325
048S	583	264	694	315	643	292	763	346
060B	557	252	668	303	617	280	737	334
060S	600	272	711	323	660	299	780	354
072S	667	303	765	347	727	330	837	380

Base Unit - The unit with standard heat exchanger NO OPTIONS.

Max. Unit - The unit with ALL OPTIONS Installed. (High Input Heat Exchanger, Economizer, etc.)

OPTIONS / ACCESSORIES

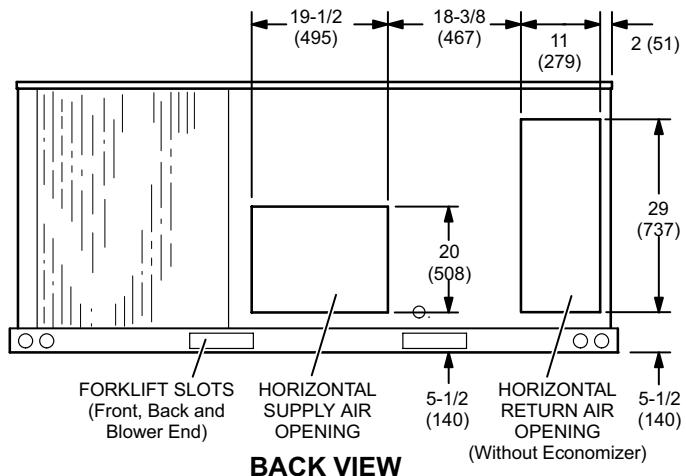
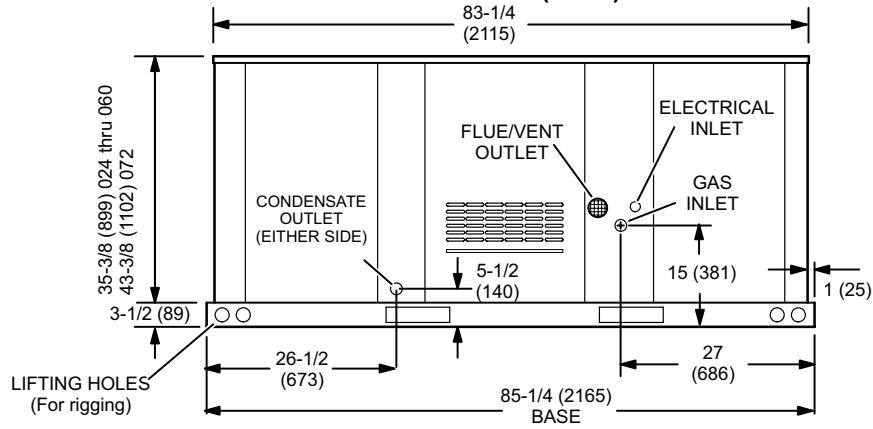
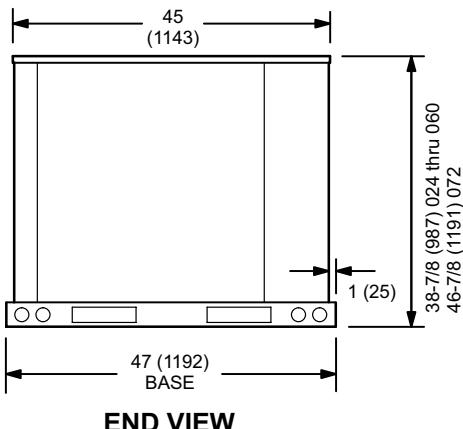
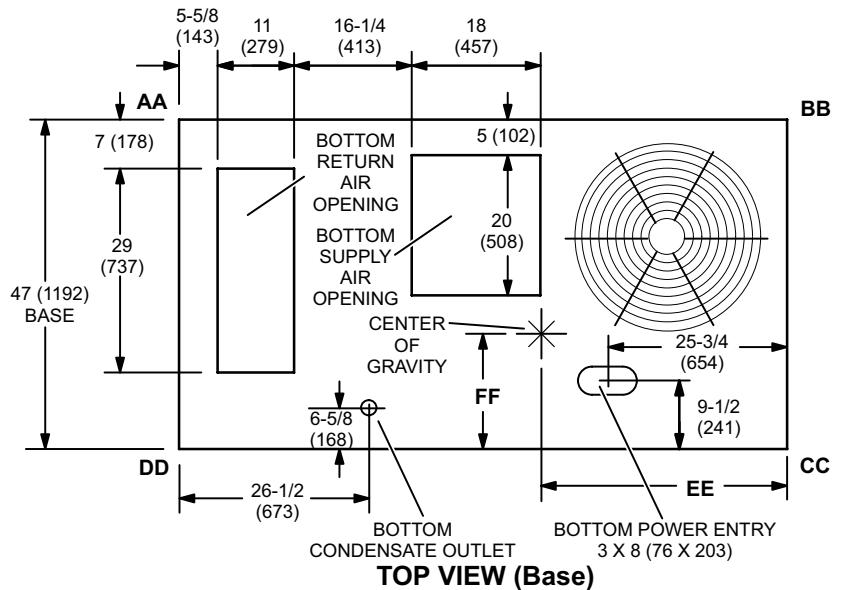
		Shipping Weights		
		Ibs.	kg	
ECONOMIZER / OUTDOOR AIR				
Economizer				
Economizer	T1ECON30A-1	97	47	
	T1ECON30N-1	109	53	
Outdoor Air Hood				
Outdoor Air Hood	T1HOOD30A-1	26	13	
	T1HOOD30N-1	33	16	
OUTDOOR AIR				
Outdoor Air Dampers				
Outdoor Air Damper Motorized Kit	T1DAMP11A-1	25	12	
	T1DAMP11N-1	29	14	
Damper Section Manual	T1DAMP21AN1	18	9	
Power Exhaust				
Standard Static	T1PWRE10A-1	35	17	
	T1PWRE10N-1	39	19	
GAS HEAT				
Medium Input		8	4	
		19	9	
ROOF CURBS - DOWN-FLOW				
Cliplock				
8 in. height	T1CURB23AN1	78	35	
14 in. height	T1CURB20AN1	96	44	
18 in. height	T1CURB21AN1	108	49	
24 in. height	T1CURB22AN1	126	57	
Standard				
14 in. height	T1CURB10AN1	96	44	
Hinged				
8 in. height	T1CURB30AN1	78	35	
18 in. height	T1CURB32AN1	108	49	
24 in. height	T1CURB33AN1	126	57	
CEILING DIFFUSERS				
Step-Down		RTD9-65	67	
		RTD11-95	88	
Flush		FD9-65	37	
		FD11-95	75	
Transitions (Supply and Return)		T1TRAN10AN1	22	
		T1TRAN20N-1	21	
			10	
			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
024	94	43	116	53	114	52	132	60	176	80	203	92	145	66
030	95	43	117	53	115	52	132	60	177	80	204	92	146	66
036	97	44	120	54	118	54	135	61	182	83	208	94	150	68
048	104	47	128	58	126	57	145	66	194	88	224	102	160	73
060	107	49	131	59	130	59	149	68	200	91	229	104	164	74
072	118	54	141	64	144	65	160	73	222	101	246	112	183	83
											218	99	38-1/2	978
											40	1016	18-1/2	470
													18-1/2	470

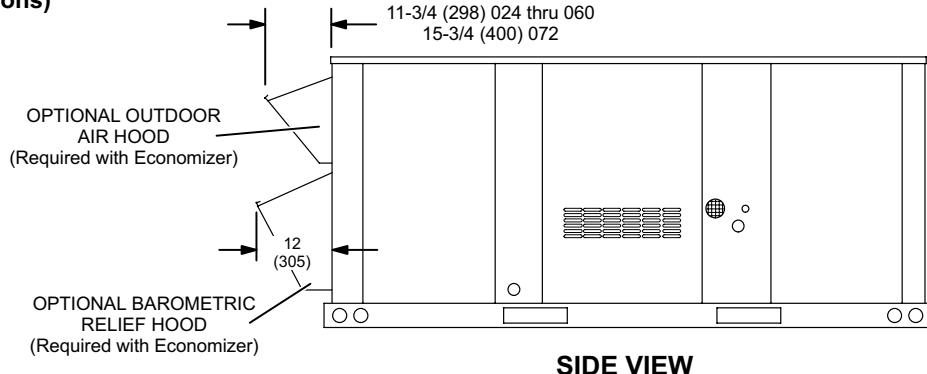
Base Unit - The unit with standard heat exchanger NO OPTIONS.

Max. Unit - The unit with ALL OPTIONS Installed. (High Input Heat Exchanger, Economizer, etc.)

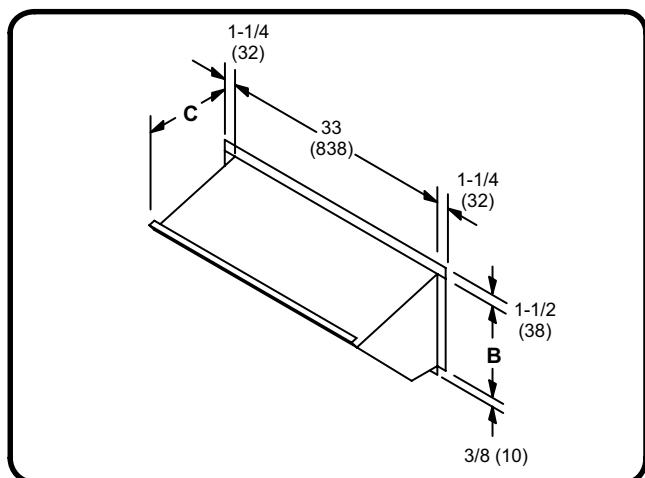


ACCESSORY DIMENSIONS - INCHES (MM)

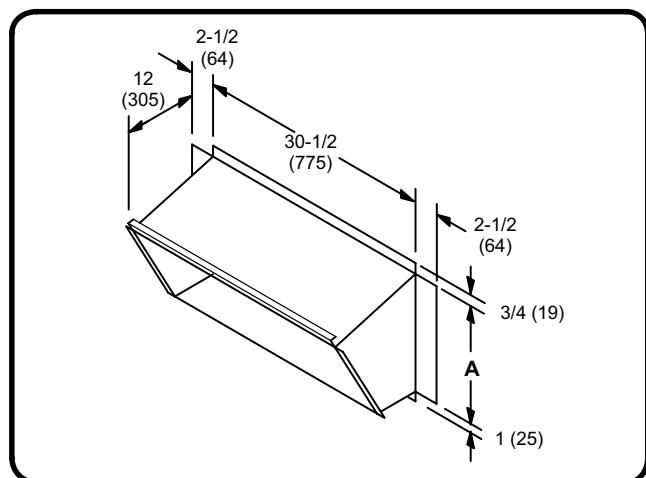
OPTIONAL OUTDOOR AIR HOOD DETAIL FOR ECONOMIZER AND BAROMETRIC RELIEF DAMPERS (Down-Flow Applications)



OPTIONAL OUTDOOR AIR HOOD FOR ECONOMIZER (Required)

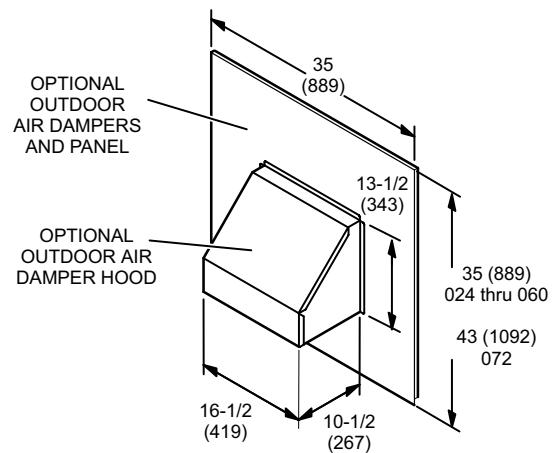
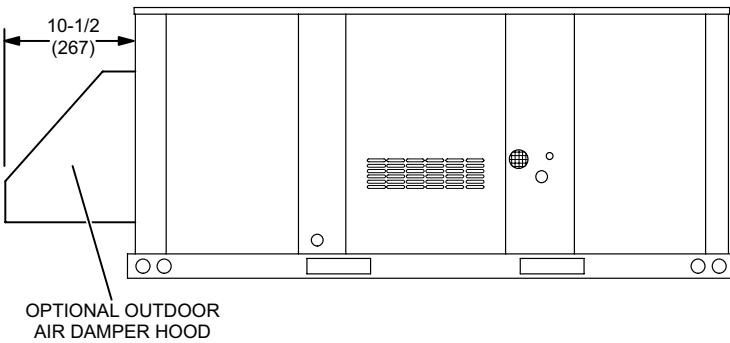


OPTIONAL BAROMETRIC RELIEF HOOD FOR ECONOMIZER (Required)



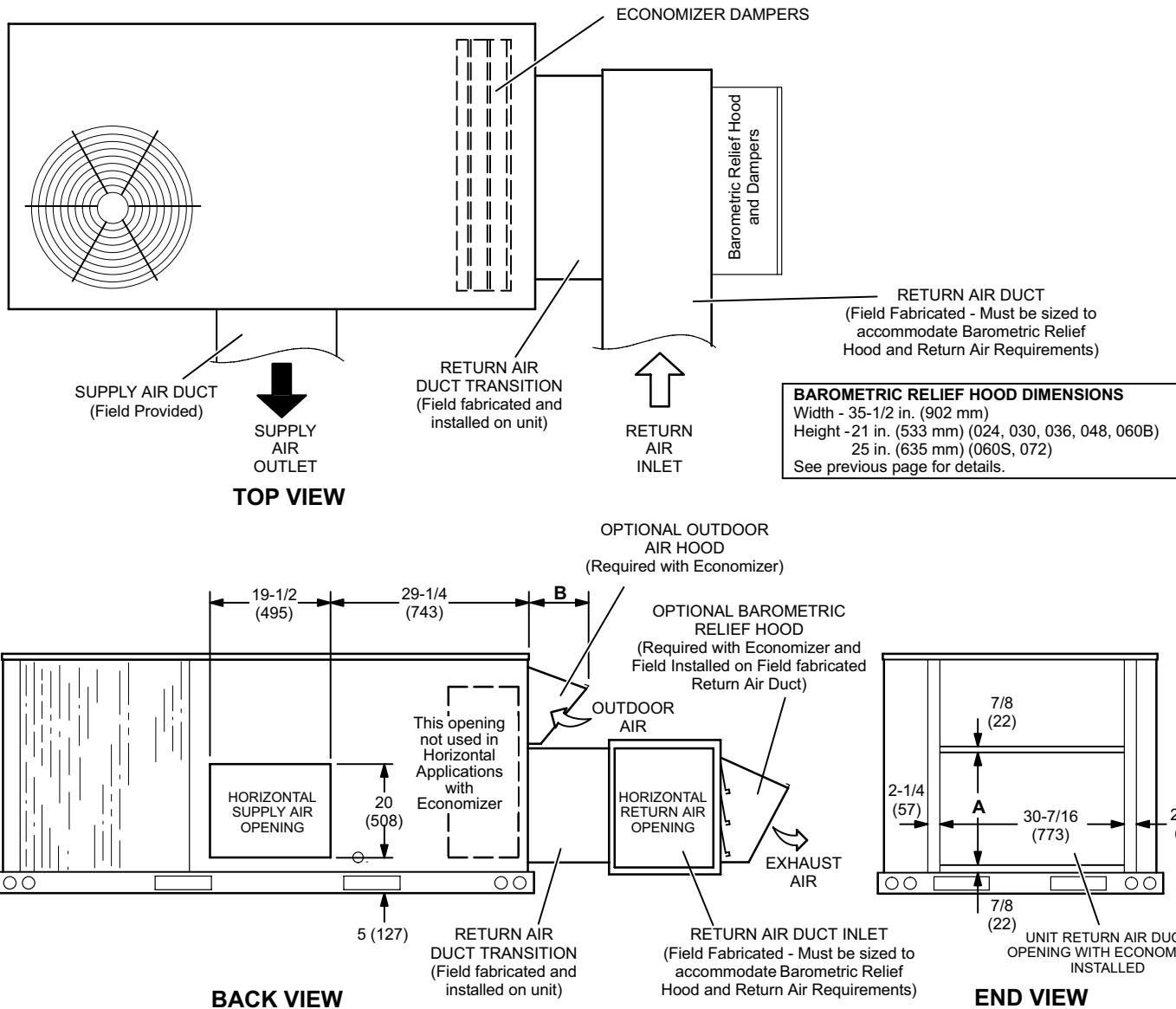
Model No.	A		B		C	
	in.	mm	in.	mm	in.	mm
024, 030, 036, 048, 060	19-1/4	489	13	330	11-3/4	298
072	23-1/4	591	17	432	15-3/4	400

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



ACCESSORY DIMENSIONS - INCHES (MM)

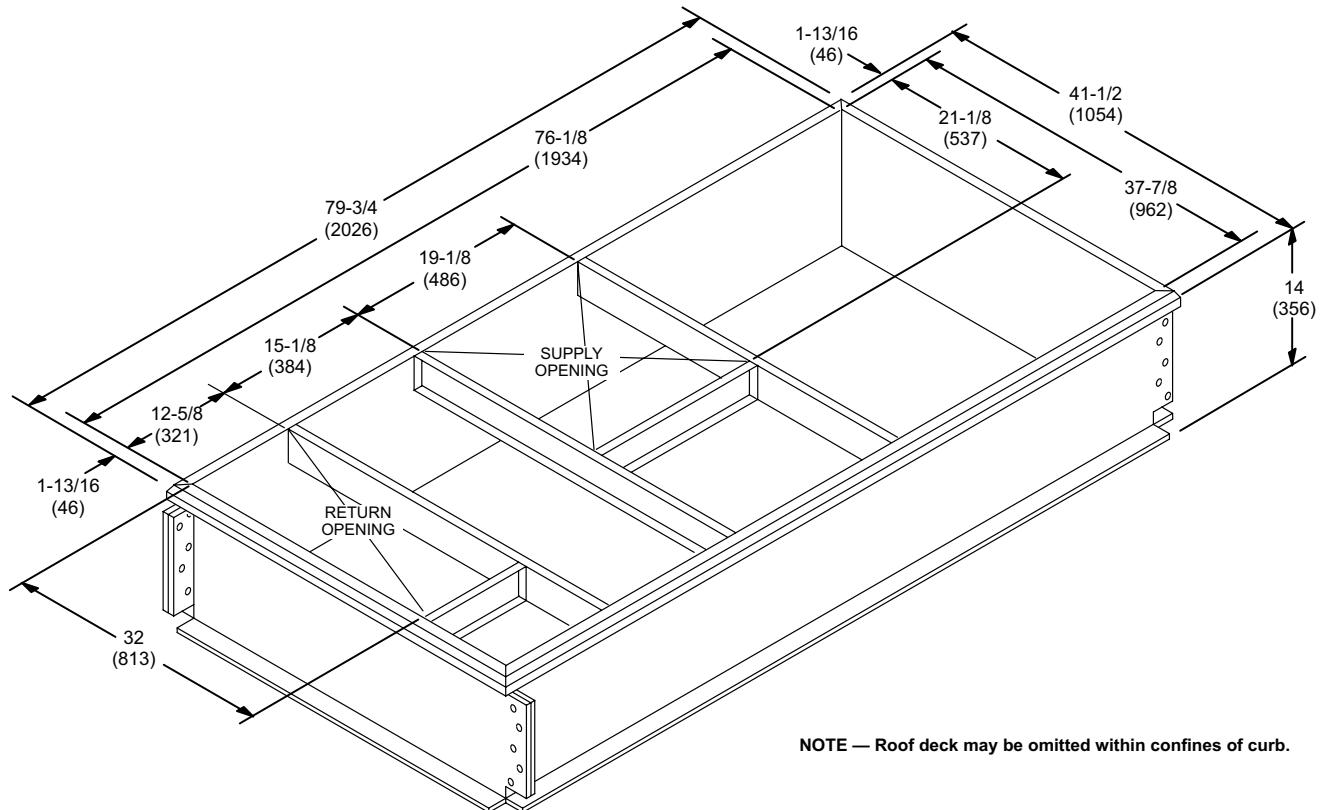
OPTIONAL OUTDOOR AIR HOOD DETAIL WITH ECONOMIZER AND BAROMETRIC RELIEF DAMPERS (Horizontal Applications)



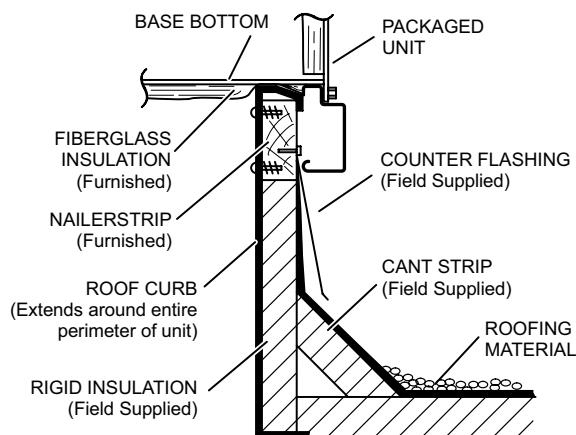
Model No.	A		B	
	in.	mm	in.	mm
024, 030, 036, 048, 060	18-3/4	476	11-3/4	298
072	22-1/2	572	15-3/4	400

ACCESSORY DIMENSIONS - INCHES (MM)

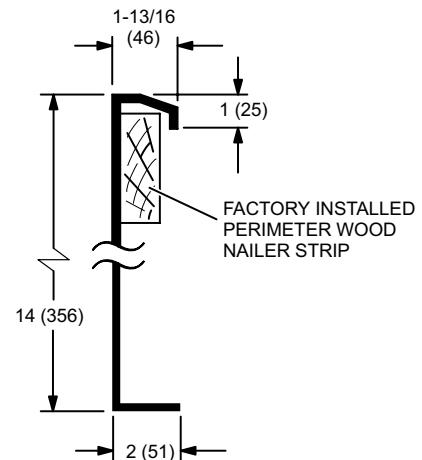
STANDARD ROOF CURBS - DOUBLE DUCT OPENING



TYPICAL FLASHING DETAIL FOR ROOF CURB

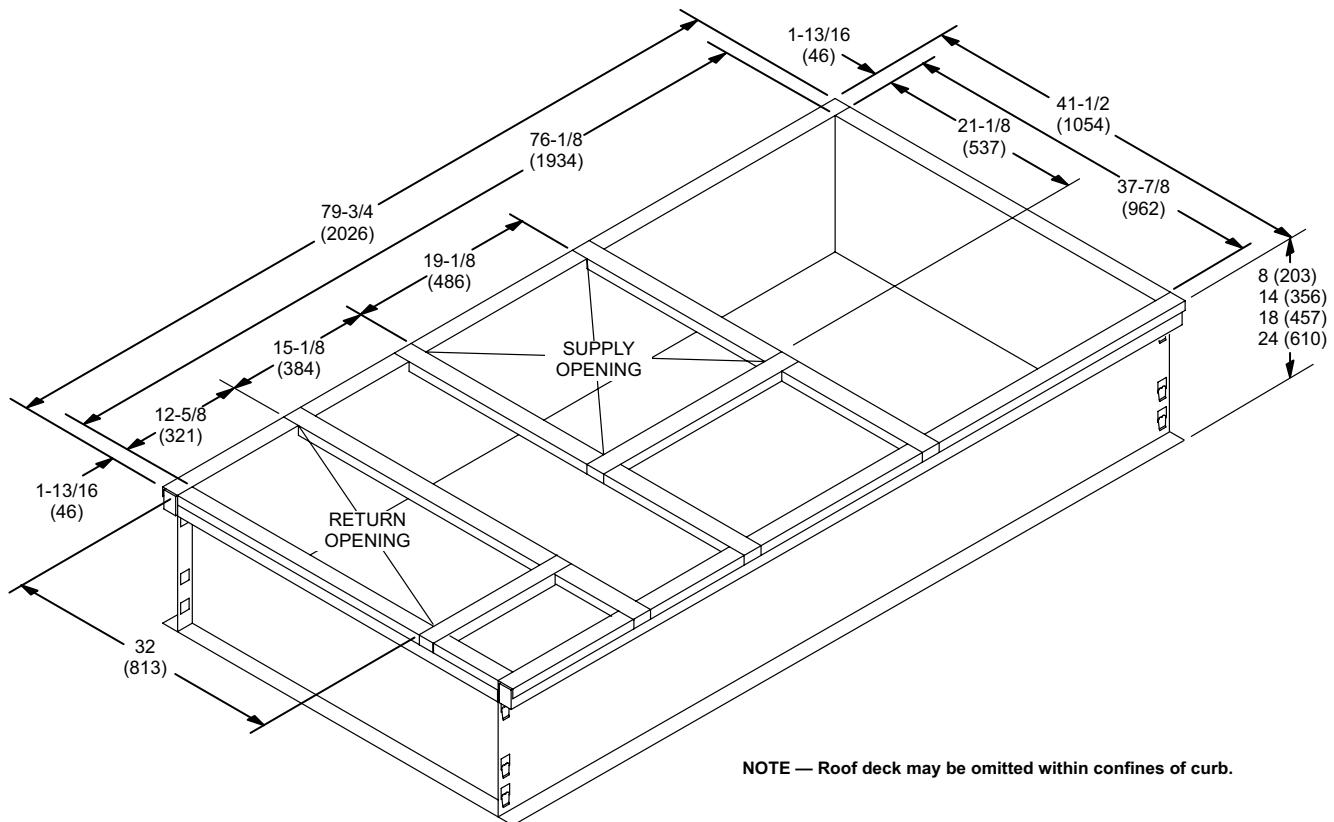


DETAIL ROOF CURB

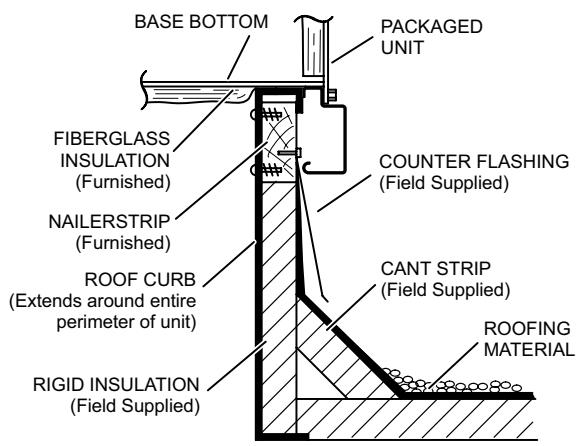


ACCESSORY DIMENSIONS - INCHES (MM)

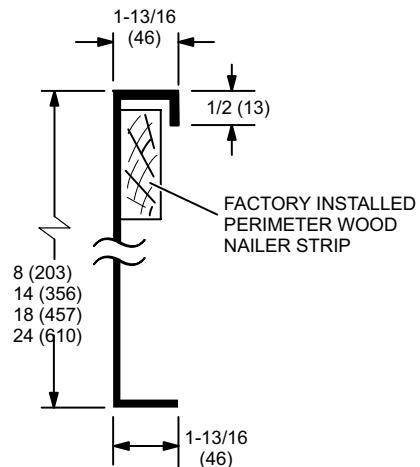
CLIPLOCK 1000 ROOF CURBS - DOUBLE DUCT OPENING



TYPICAL FLASHING DETAIL FOR ROOF CURB

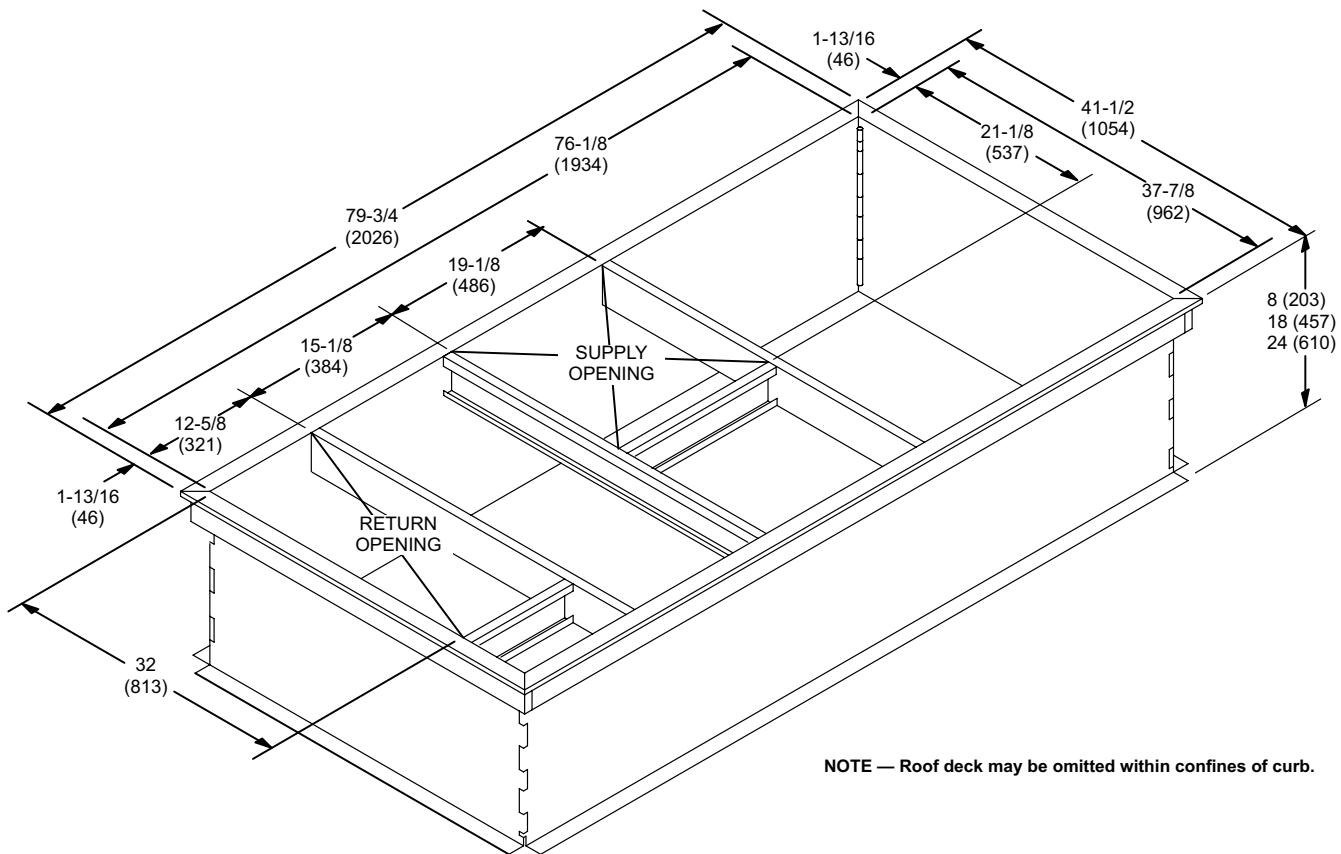


DETAIL ROOF CURB

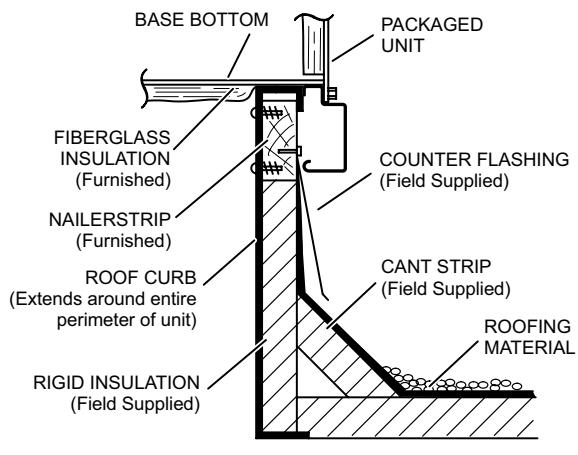


ACCESSORY DIMENSIONS - INCHES (MM)

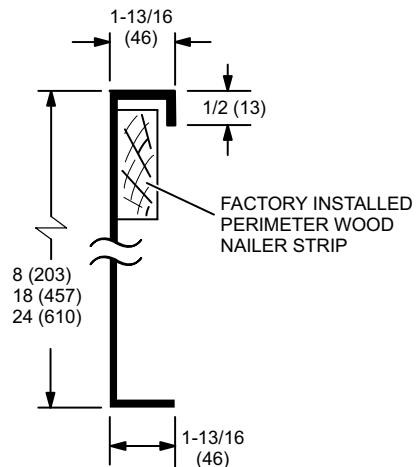
HINGED ROOF CURBS - DOUBLE DUCT OPENING



TYPICAL FLASHING DETAIL FOR ROOF CURB

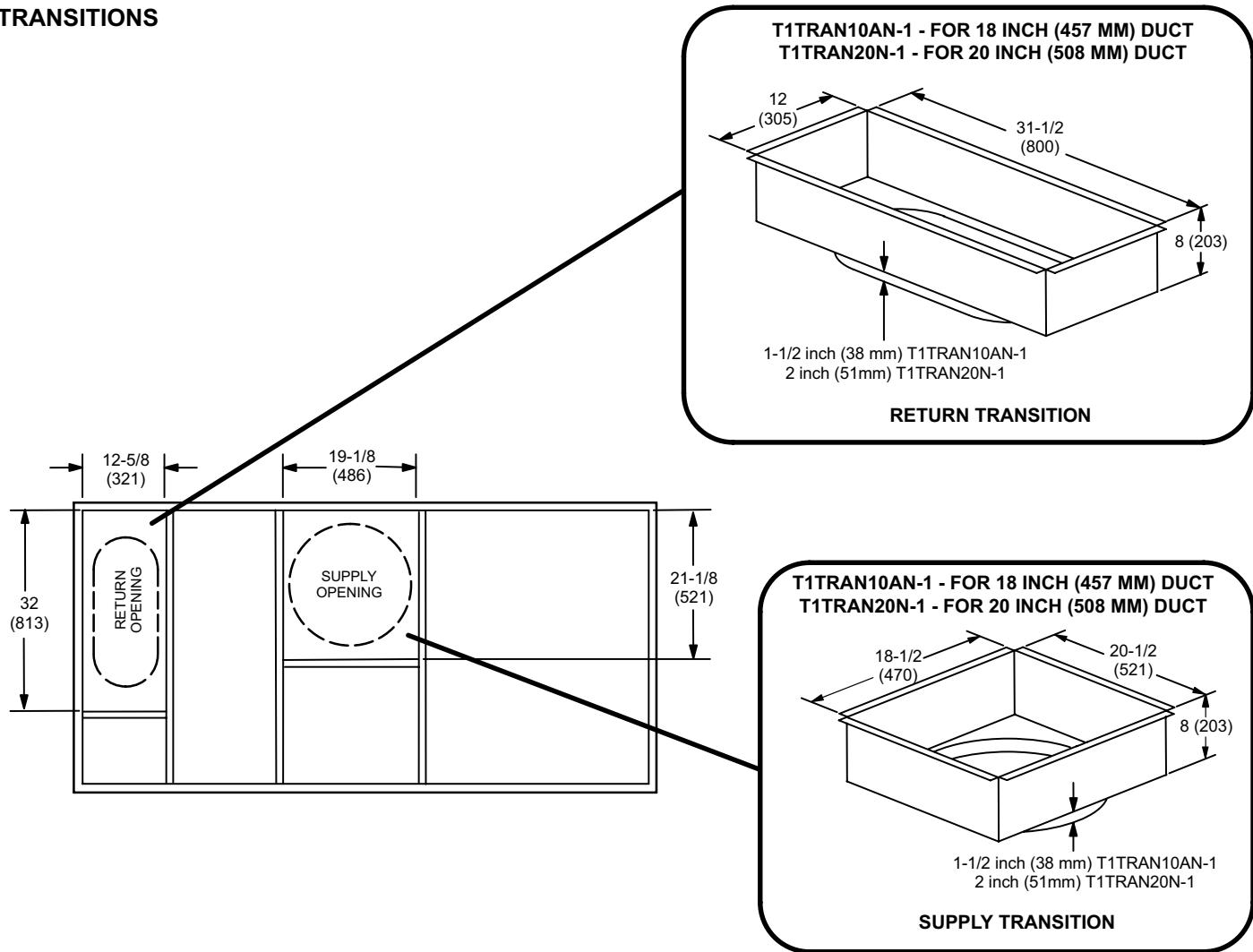


DETAIL ROOF CURB



ACCESSORY DIMENSIONS - INCHES (MM)

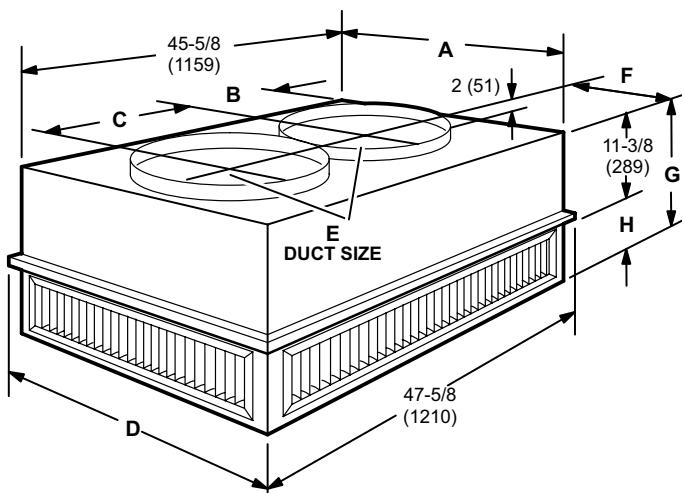
TRANSITIONS



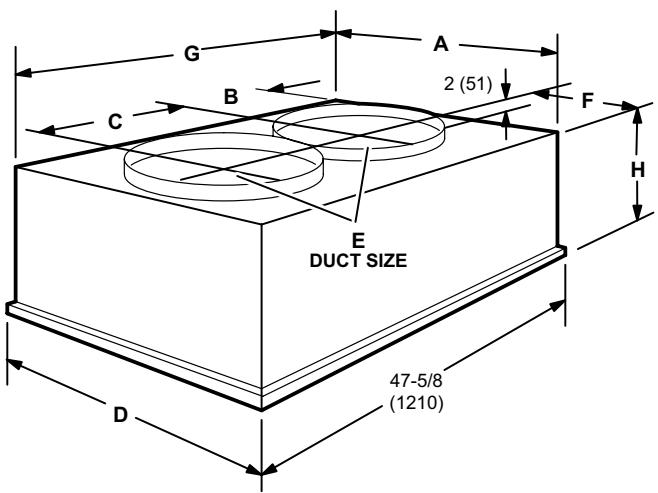
ACCESSORY DIMENSIONS - INCHES (MM)

COMBINATION CEILING SUPPLY AND RETURN DIFFUSERS

STEP-DOWN CEILING DIFFUSER



FLUSH CEILING DIFFUSER



Model No.	RTD9-65		RTD11-95	
	in.	mm	in.	mm
A	21-5/8	549	27-5/8	702
B	12-9/16	319	11-7/16	291
C	20-1/2	521	23-3/4	603
D	23-5/8	600	29-5/8	752
E	18	457	20	508
F	10-13/16	275	13-13/16	351
G	18-1/2	470	19-1/2	495
H	7-1/8	181	8-1/8	206

Model No.	FD9-65		FD11-95	
	in.	mm	in.	mm
A	21	533	27-5/8	702
B	12-1/4	311	11-7/16	291
C	20-1/2	521	23-3/4	603
D	23-5/8	600	29-5/8	752
E	18	457	20	508
F	10-1/2	267	13-13/16	351
G	45	1143	45-5/8	1159
H	15-3/8	391	16-1/8	410



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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.

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