



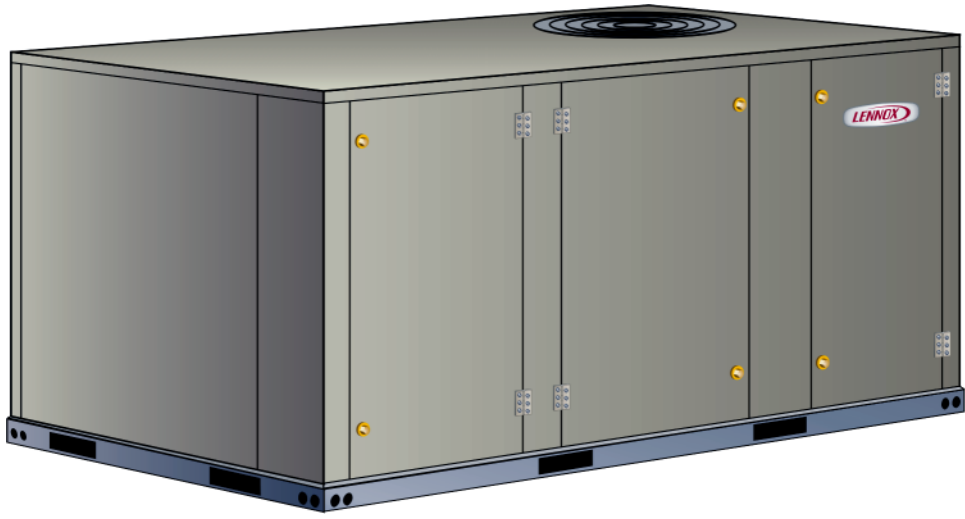
PACKAGED HEAT PUMP

TH

T-CLASS™ ROOFTOP UNITS

60 HZ

Bulletin No. 210446
June 2008
Supersedes February 2008

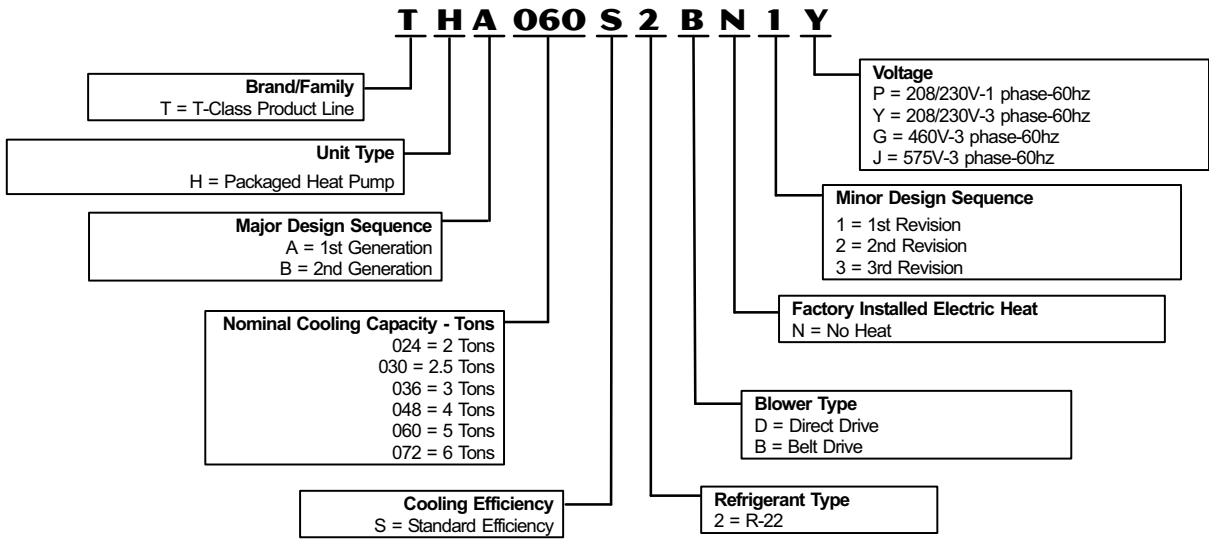


**ASHRAE 90.1
COMPLIANT**



2 to 6 Tons
Net Cooling Capacity - 24,000 to 71,000 Btuh
Net Heating Capacity - 25,600 to 73,000 Btuh
Optional Electric Heat - 7.5 to 30 kW

MODEL NUMBER IDENTIFICATION



CONTENTS

Accessory Air Resistance	Page 21
Blower Performance	Pages 14-21
Cooling/Heating Ratings	Pages 12-13
Control Systems	Pages 27
Dimensions	Pages 29-36
Electrical/Electric Heat Data	Pages 23-25
Electric Heat Capacities	Page 25
Features and Benefits	Pages 2-4
Guide Specifications	Pages 37-43
Model Number Identification	Page 1
Options / Accessories	Pages 6-8
Specifications	Pages 10
Sound Data	Page 9 22
Unit Clearances	Page 26
Weights	Page 28

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 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.

All 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.

The ENERGY STAR® Partner of the Year Award signifies that Lennox has made outstanding contributions to design energy efficient units that will lower energy bills, while meeting industry standards for comfort and indoor air quality. Lennox was the first HVAC manufacturer to win this award and has been a four-time recipient since 2003. 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

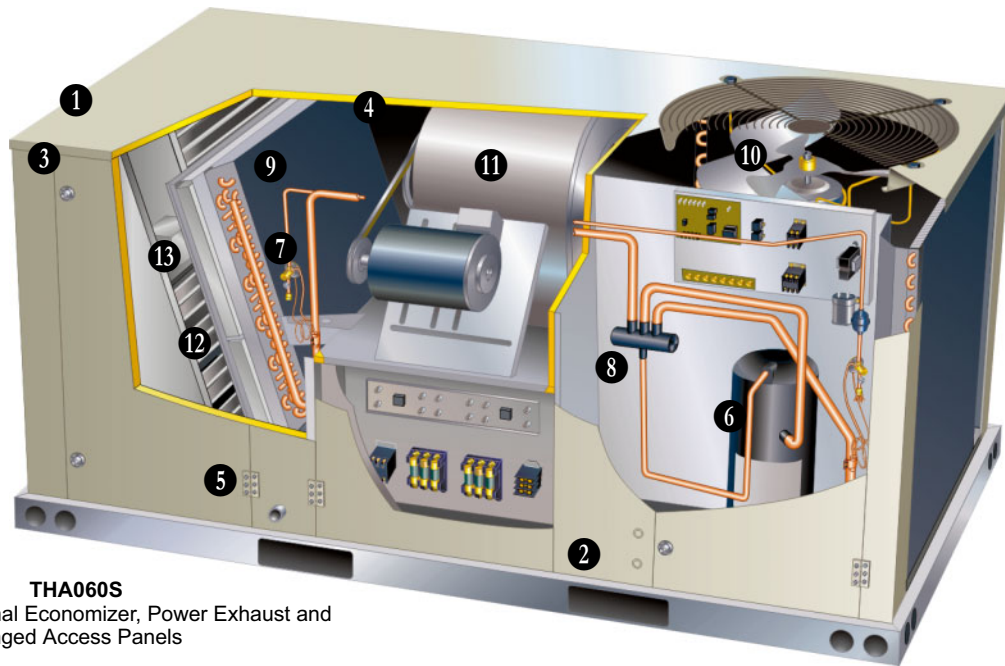
Coil Guards

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



THA060S

Shown With Optional Economizer, Power Exhaust and Hinged Access Panels

HEATING / COOLING SYSTEM

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

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

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.

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.

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.

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

L Connection® Network

Complete building automation control system for single or multi-zone applications. Options include local interface, software for local or remote communication, and hardware for networking other control functions. See L Connection Network Engineering Handbook Bulletin for details.

Thermostats

Control system and thermostat options. Aftermarket unit controller options. See See Page 27.

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, 048 and 060B models.

Belt drive motors are offered on all 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

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

Field Installed

Electric Heat

Helix wound nichrome elements, individual element limit controls, wiring harness. Unit Fuse Block must be ordered extra. See Electrical/Electric Heat tables for ordering information, Pages 23-25.

GFI Service Outlets (2)

115v ground fault circuit interrupter (GFCI) type.

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 23-25.

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.

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 / HEATING 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	T1SNSR13AN2	43W09	x	x	x	x	x
Efficiency	Standard		○	○	○	○	○
High Pressure Switch	T1SNSR14AN2	43W03	x	x	x	x	x
Refrigerant Type	R-22		○	○	○	○	○
BLOWER - SUPPLY AIR							
Motors	Direct Drive - 0.25 hp		○	○			
	Direct Drive - 0.5 hp				○	○	
	Belt Drive - 1.5 hp Standard Efficiency				○	○	○
	² Belt Drive - 2 hp Standard Efficiency				○	○	○
Drive Kits See Blower Data Tables for selection	Drive Kit # 1 - T1DRKT001-1 - 673-1010 rpm	20W81			⊗		
	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	
	T1GARD20N-1	17W88					x
Corrosion Protection			○	○	○	○	○
Hail Guards	T1GARD10A-1	17W89	x	x	x	x	
	T1GARD10N-1	17W90					x
Hinged Access Panels			○	○	○	○	○
CONTROLS							
Dirty Filter Switch	COSWCH00AE-1	30K48	x	x	x	x	x
Smoke Detector Supply and Return (order 2)	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

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

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

○ - Configure to Order (Factory Installed)

¹ 036B models only

X - Field Installed

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

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	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	208/240V-1ph - T1EH0075AN1P	14W32	x	x	x	x	x
	208/240V-3ph - T1EH0075AN1Y	14W35			x	x	x
	460V-3ph - T1EH0075AN1G	14W39			x	x	x
	575V-3ph - T1EH0075AN1J	14W43			x	x	x
10 kW	208/240V-1ph - T1EH0100A1P	30W26	x	x			
15 kW	208/240V-1ph - T1EH0150AN1P	14W33			x	x	x
	208/240V-3ph - T1EH0150AN1Y	14W36			x	x	x
	460V-3ph - T1EH0150AN1G	14W40			x	x	x
	575V-3ph - T1EH0150AN1J	14W44			x	x	x
22.5 kW	208/240V-1ph - T1EH0225AN1P	14W34				x	
	208/240V-3ph - T1EH0225AN1Y	14W37				x	x
	460V-3ph - T1EH0225AN1G	14W41				x	x
	575V-3ph - T1EH0225AN1J	14W45				x	x
30 kW	208/240V-3ph - T1EH0300N-1Y	14W38					x
	460V-3ph - T1EH0300N-1G	14W42					x
	575V-3ph - T1EH0300N-1J	14W46					x
ELECTRIC HEAT ACCESSORIES/OPTIONS - See Electrical/Electric Heat Tables for selection							
	Unit Fuse Block		x	x	x	x	x

NOTE - The catalog 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

Item	Catalog No.	024	030	036	048	060	072
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
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 - DOWN-FLOW							
Cliplock							
8 in. height	T1CURB23AN1	16W93	x	x	x	x	x
14 in. height	T1CURB20AN1	16W94	x	x	x	x	x
18 in. height	T1CURB21AN1	16W95	x	x	x	x	x
24 in. height	T1CURB22AN1	16W96	x	x	x	x	x
Hinged							
8 in. height	T1CURB30AN1	17W46	x	x	x	x	x
18 in. height	T1CURB32AN1	17W47	x	x	x	x	x
24 in. height	T1CURB33AN1	17W48	x	x	x	x	x
Standard							
14 in. height	T1CURB10AN1	13W27	x	x	x	x	x

NOTE - The catalog 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.

SPECIFICATIONS - DIRECT DRIVE BLOWER

2 - 4 TON

General Data		Nominal Tonnage	2 Ton	2.5 Ton	3 Ton	4 Ton
		Model No.	THA024S2D	THA030S2D	THA036S2D	THA048S2D
		Efficiency Type	Standard	Standard	Standard	Standard
Cooling Performance	Gross Cooling Capacity - Btuh		25,000	30,000	37,000	50,000
	¹ Net Cooling Capacity - Btuh		24,000	28,600	35,600	48,000
	ARI Rated Air Flow - cfm		800	980	1,160	1,750
	² Sound Rating Number (dB)		75	75	75	75
	Total Unit Power - kW		2.0	2.4	3.0	4.3
	¹ SEER (Btuh/Watt)		13.0	13.0	13.5	13.0
	¹ EER (Btuh/Watt)		12	11.8	12	11.2
Refrigerant	Type		R-22	R-22	R-22	R-22
	Charge Furnished		12 lbs. 0 oz.	12 lbs. 0 oz.	13 lbs. 12 oz.	13 lbs. 0 oz.
Heating Performance	Total High Heating Capacity - Btuh		25,600	30,000	34,200	44,500
	Total Unit Power - kW		2.1	2.4	2.9	3.6
	¹ COP		3.7	3.7	3.5	3.6
	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		15,000	17,800	20,800	28,400
	Total Unit Power - kW		1.9	2.2	2.7	3.5
	COP		2.3	2.4	2.3	2.4
Electric Heating Options		See Electrical/Electric Heat Tables Pages 23-25				
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	4	3	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				
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				
	Number and size - in.	(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 ARI 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 ARI Standard 270.

SPECIFICATIONS - BELT DRIVE BLOWER

3 - 6 TON

General Data		Nominal Tonnage	3 Ton	4 Ton	5 Ton	6 Ton
		Model No.	THA036S2B	THA048S2B	THA060S2B	THA072S2B
		Efficiency Type	Standard	Standard	Standard	Standard
Cooling Performance	Gross Cooling Capacity - Btuh		37,000	50,000	64,500	74,000
	Net Cooling Capacity - Btuh		¹ 35,600	¹ 48,000	¹ 62,000	² 71,000
	ARI Rated Air Flow - cfm		1,160	1,750	2,000	2,400
	² Sound Rating Number (dB)		75	75	82	82
	Total Unit Power - kW		3.0	4.3	5.3	6.7
	¹ SEER (Btuh/Watt)		13.5	13.0	13.0	---
	EER (Btuh/Watt)		¹ 12.0	¹ 11.2	¹ 11.6	² 10.6
Refrigerant	Type		R-22	R-22	R-22	R-22
	Charge Furnished		13 lbs. 12 oz.	13 lbs. 0 oz.	15 lbs. 0 oz.	14 lbs. 8 oz.
Heating Performance	Total High Heating Capacity - Btuh		34,200	44,500	59,000	73,000
	Total Unit Power - kW		2.9	3.6	4.8	5.9
	¹ COP		3.5	3.6	¹ 3.68	² 3.6
	HSPF - Region IV (Region V)		7.7(6.7)	7.7(6.7)	7.7(6.7)	---
	Total Low Heating Capacity - Btuh		20,800	28,400	31,400	42,000
	Total Unit Power - kW		2.7	3.5	4.0	5.4
	COP		2.3	2.4	¹ 2.36	² 2.3
Electric Heating Options		See Electrical/Electric Heat Tables Pages 23-25				
Compressor Type (no.)			Scroll (1)	Scroll (1)	Scroll (1)	Scroll (1)
Outdoor Coil	Net face area - sq. ft.		15.6	15.6	19.27	19.27
	Tube diameter - in.		3/8	3/8	3/8	3/8
	Number of rows		2.0	2.0	2.00	2.00
	Fins / inch		20	20	20	20
Outdoor Coil Fan	Motor HP		1/4	1/4	1/3	1/3
	Motor rpm		825	825	1075	1075
	Total motor watts		250	250	405	405
	Diameter - in. / No. of blades		24 - 3	24 - 3	24 - 3	24 - 3
	Total air volume - cfm		3300	3300	4800	4800
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	4	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			
⁴ Indoor Blower & Drive Selection	Nominal Motor HP		1.5 hp, ⁵ 2 hp		1.5 hp, ⁵ 2 hp	
	Maximum Usable Motor HP		1.72 hp, 2.3 hp		1.72 hp, 2.3 hp	
	Wheel nom. diameter x width - in.		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	Drive Kit #3 833 - 1250 rpm Drive Kit #7 1212 - 1548 rpm	Drive Kit #4 968 - 1340 rpm Drive Kit #8 1193 - 1591 rpm
Filters	Type		Disposable			
	Number and size - in.		(4) 16 x 20 x 2		(4) 20 x 20 x 2	
Electrical Characteristics - 60 hz			208/230V 1 phase	208/230V 1 phase	208/230V 1 phase	208/230V, 460V & 575V 3 phase
			208/230V, 460V & 575V 3 phase	208/230V, 460V & 575V 3 phase	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.

² Certified in accordance with the ULE certification program, which is based on ARI Standard 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 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 output required. Maximum usable output of motors furnished are shown. In Canada, nominal motor output is also maximum usable motor output. If motors of comparable output 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-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

THA024S2

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	23.4	6.9	1.35	.70	.84	.97	22.5	6.6	1.51	.72	.86	.99	21.6	6.3	1.70	.73	.87	1.00	20.6	6.0	1.92	.74	.90	1.00
	800	380	24.4	7.2	1.35	.76	.92	1.00	23.5	6.9	1.52	.77	.94	1.00	22.5	6.6	1.70	.79	.96	1.00	21.5	6.3	1.92	.81	.99	1.00
	960	455	25.3	7.4	1.35	.81	.99	1.00	24.3	7.1	1.52	.83	1.00	1.00	23.5	6.9	1.71	.85	1.00	1.00	22.5	6.6	1.92	.87	1.00	1.00
67°F (19°C)	640	300	25.1	7.4	1.35	.55	.68	.80	24.1	7.1	1.52	.56	.69	.82	23.1	6.8	1.71	.57	.70	.83	22.1	6.5	1.92	.57	.71	.86
	800	380	26.0	7.6	1.36	.58	.73	.88	25.0	7.3	1.52	.59	.75	.90	24.0	7.0	1.71	.60	.76	.93	22.9	6.7	1.93	.61	.78	.95
	960	455	26.7	7.8	1.36	.62	.79	.96	25.6	7.5	1.53	.63	.81	.98	24.6	7.2	1.71	.64	.83	1.00	23.4	6.9	1.93	.65	.85	1.00
71°F (22°C)	640	300	26.8	7.9	1.36	.42	.54	.65	25.8	7.6	1.53	.42	.54	.66	24.8	7.3	1.71	.42	.55	.67	23.7	6.9	1.93	.42	.56	.69
	800	380	27.8	8.1	1.37	.43	.57	.71	26.7	7.8	1.53	.43	.58	.72	25.6	7.5	1.72	.44	.59	.74	24.4	7.2	1.93	.44	.60	.75
	960	455	28.4	8.3	1.38	.44	.60	.77	27.3	8.0	1.54	.44	.61	.78	26.2	7.7	1.72	.45	.63	.80	24.9	7.3	1.94	.46	.64	.83

2.5 TON STANDARD EFFICIENCY - COOLING CAPACITY

THA030S2

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	28.2	8.3	1.66	.72	.87	1.00	27.0	7.9	1.88	.73	.89	1.00	25.8	7.6	2.13	.75	.91	1.00	24.5	7.2	2.40	.77	.94	1.00
	1000	470	29.4	8.6	1.66	.78	.95	1.00	28.2	8.3	1.88	.79	.97	1.00	27.0	7.9	2.13	.82	.99	1.00	25.7	7.5	2.41	.84	1.00	1.00
	1200	565	30.6	9.0	1.66	.84	1.00	1.00	29.5	8.6	1.88	.86	1.00	1.00	28.3	8.3	2.13	.88	1.00	1.00	27.1	7.9	2.40	.91	1.00	1.00
67°F (19°C)	800	380	30.2	8.9	1.66	.56	.70	.83	29.0	8.5	1.88	.57	.71	.84	27.7	8.1	2.13	.58	.72	.87	26.3	7.7	2.40	.59	.74	.89
	1000	470	31.3	9.2	1.66	.60	.76	.91	30.0	8.8	1.88	.61	.77	.93	28.6	8.4	2.13	.62	.79	.96	27.2	8.0	2.41	.63	.81	.98
	1200	565	32.2	9.4	1.66	.63	.81	.99	30.8	9.0	1.88	.64	.84	1.00	29.3	8.6	2.13	.66	.86	1.00	27.8	8.1	2.41	.67	.89	1.00
71°F (22°C)	800	380	32.5	9.5	1.66	.42	.54	.67	31.1	9.1	1.88	.42	.55	.68	29.7	8.7	2.13	.43	.56	.70	28.3	8.3	2.41	.43	.57	.71
	1000	470	33.6	9.8	1.65	.43	.58	.73	32.2	9.4	1.88	.44	.59	.74	30.7	9.0	2.13	.44	.60	.77	29.1	8.5	2.41	.45	.62	.79
	1200	565	34.3	10.1	1.65	.45	.62	.79	32.9	9.6	1.88	.45	.63	.81	31.3	9.2	2.13	.46	.65	.83	29.7	8.7	2.41	.47	.66	.86

2 TON STANDARD EFFICIENCY - HEATING CAPACITY

THA024S2

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					
640	300	31.6	9.3	1.79	24.5	7.2	1.68	17.4	5.1	1.58	10.8	3.2	1.41	5.4	1.6	1.06
800	380	36.6	9.4	1.66	24.9	7.3	1.56	17.8	5.2	1.45	11.2	3.3	1.28	5.8	1.7	.93
960	455	32.4	9.5	1.59	25.3	7.4	1.49	18.2	5.3	1.38	11.6	3.4	1.21	6.2	1.8	.86

2.5 TON STANDARD EFFICIENCY - HEATING CAPACITY

THA030S2

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					
800	380	36.6	10.7	2.03	28.5	8.4	1.91	20.4	6.0	1.79	12.7	3.7	1.59	6.2	1.8	1.19
1000	470	37.3	10.9	1.91	29.2	8.6	1.79	21.1	6.2	1.67	13.4	3.9	1.47	6.9	2.0	1.07
1200	565	37.9	11.1	1.82	29.8	8.7	1.70	21.7	6.4	1.58	14.0	4.1	1.38	7.5	2.2	.98

2 TON STANDARD EFFICIENCY - THA024S - HEATING PERFORMANCE at 800 cfm Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	1.66	32.0	9.4
60	16	1.64	30.2	8.9
55	13	1.61	28.4	8.3
50	10	1.58	26.7	7.8
47	8	1.57	25.6	7.5
45	7	1.56	24.9	7.3
40	4	1.53	23.1	6.8
35	2	1.50	21.4	6.3
30	-1	1.48	19.6	5.7
25	-4	1.45	17.8	5.2
20	-7	1.42	16.1	4.7
17	-8	1.41	15.0	4.4
15	-9	1.40	14.3	4.2
10	-12	1.37	12.5	3.7
5	-15	1.28	11.2	3.3
0	-18	1.20	9.9	2.9
-5	-21	1.11	8.5	2.5
-10	-23	1.02	7.2	2.1
-15	-26	.93	5.8	1.7
-20	-29	.85	4.5	1.3

2.5 TON STANDARD EFFICIENCY - THA030S - HEATING PERFORMANCE at 1000 cfm Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	1.91	37.3	10.9
60	16	1.88	35.3	10.3
55	13	1.85	33.3	9.8
50	10	1.82	31.2	9.1
47	8	1.80	30.0	8.8
45	7	1.79	29.2	8.6
40	4	1.76	27.2	8.0
35	2	1.73	25.1	7.4
30	-1	1.70	23.1	6.8
25	-4	1.67	21.1	6.2
20	-7	1.64	19.0	5.6
17	-8	1.62	17.8	5.2
15	-9	1.61	17.0	5.0
10	-12	1.57	15.0	4.4
5	-15	1.47	13.4	3.9
0	-18	1.37	11.7	3.4
-5	-21	1.27	10.1	3.0
-10	-23	1.17	8.5	2.5
-15	-26	1.07	6.9	2.0
-20	-29	.97	5.3	1.6

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

*Outdoor temperature 70% relative humidity. Indoor temperature 70°F (21°C).

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

THA036S2

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	34.8	10.2	2.02	.69	.84	.99	33.5	9.8	2.29	.70	.86	1.00	32.1	9.4	2.58	.71	.88	1.00	30.7	9.0	2.93	.73	.91	1.00
	1200	565	36.2	10.6	2.03	.75	.93	1.00	34.9	10.2	2.29	.76	.95	1.00	33.5	9.8	2.59	.78	.97	1.00	32.1	9.4	2.93	.80	1.00	1.00
	1440	680	37.5	11.0	2.04	.81	1.00	1.00	36.3	10.6	2.30	.83	1.00	1.00	35.0	10.3	2.59	.85	1.00	1.00	33.6	9.8	2.93	.88	1.00	1.00
67°F (19°C)	960	455	37.2	10.9	2.04	.54	.66	.80	35.8	10.5	2.30	.54	.68	.82	34.3	10.1	2.59	.55	.69	.84	32.8	9.6	2.93	.56	.70	.87
	1200	565	38.5	11.3	2.04	.57	.72	.89	37.0	10.8	2.30	.58	.73	.92	35.4	10.4	2.60	.59	.76	.94	33.8	9.9	2.94	.60	.78	.96
	1440	680	39.4	11.5	2.05	.60	.78	.97	37.8	11.1	2.31	.62	.81	.99	36.3	10.6	2.60	.63	.83	1.00	34.6	10.1	2.95	.64	.86	1.00
71°F (22°C)	960	455	39.8	11.7	2.05	.40	.52	.64	38.3	11.2	2.31	.41	.53	.65	36.7	10.8	2.61	.41	.54	.67	35.1	10.3	2.95	.41	.55	.68
	1200	565	41.0	12.0	2.06	.42	.56	.70	39.5	11.6	2.32	.42	.57	.71	37.8	11.1	2.61	.42	.58	.73	36.1	10.6	2.96	.43	.59	.75
	1440	680	41.9	12.3	2.07	.43	.59	.76	40.3	11.8	2.33	.43	.61	.78	38.6	11.3	2.62	.44	.62	.80	36.8	10.8	2.96	.44	.63	.83

4 TON STANDARD EFFICIENCY - COOLING CAPACITY

THA048S2

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	47.4	13.9	2.89	.70	.85	.99	45.6	13.4	3.24	.72	.87	1.00	43.6	12.8	3.65	.73	.89	1.00	41.6	12.2	4.12	.75	.91	1.00
	1600	755	49.3	14.4	2.90	.76	.94	1.00	47.4	13.9	3.25	.78	.96	1.00	45.5	13.3	3.66	.80	.98	1.00	43.5	12.7	4.14	.82	1.00	1.00
	1920	905	51.2	15.0	2.92	.82	1.00	1.00	49.4	14.5	3.27	.85	1.00	1.00	47.5	13.9	3.68	.87	1.00	1.00	45.6	13.4	4.15	.89	1.00	1.00
67°F (19°C)	1280	605	50.6	14.8	2.91	.55	.68	.81	48.6	14.2	3.26	.56	.69	.83	46.5	13.6	3.67	.57	.71	.85	44.4	13.0	4.14	.57	.72	.87
	1600	755	52.3	15.3	2.92	.58	.74	.90	50.3	14.7	3.28	.59	.75	.92	48.1	14.1	3.69	.60	.77	.95	45.8	13.4	4.16	.62	.79	.97
	1920	905	53.6	15.7	2.94	.62	.80	.98	51.4	15.1	3.29	.63	.82	1.00	49.2	14.4	3.70	.64	.84	1.00	46.9	13.7	4.17	.66	.87	1.00
71°F (22°C)	1280	605	54.1	15.9	2.94	.41	.53	.65	51.9	15.2	3.29	.42	.54	.67	49.8	14.6	3.70	.42	.55	.68	47.5	13.9	4.18	.42	.56	.70
	1600	755	55.8	16.4	2.95	.43	.57	.71	53.6	15.7	3.31	.43	.58	.73	51.2	15.0	3.72	.43	.59	.75	48.8	14.3	4.19	.44	.60	.77
	1920	905	57.0	16.7	2.96	.44	.61	.78	54.6	16.0	3.32	.44	.62	.80	52.2	15.3	3.73	.45	.63	.82	49.7	14.6	4.20	.45	.65	.85

3 TON STANDARD EFFICIENCY - HEATING CAPACITY

THA036S2

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)			
	cfm	L/s	Total Heating Capacity kBtuh	kW	Comp. Motor kW Input	Total Heating Capacity kBtuh	kW	Comp. Motor kW Input	Total Heating Capacity kBtuh	kW	Comp. Motor kW Input	Total Heating Capacity kBtuh	kW	Comp. Motor kW Input	Total Heating Capacity kBtuh	kW	Comp. Motor kW Input			
960	455	41.9	12.3	2.47	32.2	9.4	2.31	21.9	6.4	2.16	15.3	4.5	1.92	7.7	2.3	1.44				
1200	565	42.4	12.4	2.31	32.7	9.6	2.16	22.4	6.6	2.00	15.8	4.6	1.77	8.2	2.4	1.29				
1440	680	43.0	12.6	2.21	33.3	9.8	2.06	23.0	6.7	1.90	16.4	4.8	1.67	8.8	2.6	1.19				

4 TON STANDARD EFFICIENCY - HEATING CAPACITY

THA048S2

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)			
	cfm	L/s	Total Heating Capacity kBtuh	kW	Comp. Motor kW Input	Total Heating Capacity kBtuh	kW	Comp. Motor kW Input	Total Heating Capacity kBtuh	kW	Comp. Motor kW Input	Total Heating Capacity kBtuh	kW	Comp. Motor kW Input	Total Heating Capacity kBtuh	kW	Comp. Motor kW Input			
1280	605	62.1	18.2	4.18	44.9	13.2	3.59	31.0	9.1	3.11	20.6	6.0	2.76	13.4	3.9	2.57				
1600	755	62.8	18.4	3.86	45.5	13.3	3.28	31.6	9.3	2.81	21.2	6.2	2.45	14.1	4.1	2.19				
1920	905	64.3	18.8	3.69	46.9	13.7	3.12	33.0	9.7	2.65	22.5	6.6	2.28	15.9	4.7	1.99				

3 TON STANDARD EFFICIENCY - THA036S - HEATING PERFORMANCE at 1200 cfm Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	2.31	42.4	12.4
60	16	2.27	40.2	11.8
55	13	2.23	37.9	11.1
50	10	2.20	35.7	10.5
47	8	2.17	34.3	10.1
45	7	2.16	32.7	9.6
40	4	2.12	28.5	8.4
35	2	2.08	24.3	7.1
30	-1	2.04	23.4	6.9
25	-4	2.00	22.4	6.6
20	-7	1.97	21.5	6.3
17	-8	1.94	20.9	6.1
15	-9	1.93	20.0	5.9
10	-12	1.89	17.7	5.2
5	-15	1.77	15.8	4.6
0	-18	1.65	13.9	4.1
-5	-21	1.53	12.0	3.5
-10	-23	1.41	10.1	3.0
-15	-26	1.29	8.2	2.4
-20	-29	1.17	6.3	1.8

4 TON STANDARD EFFICIENCY - THA048S - HEATING PERFORMANCE at 1600 cfm Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	3.86	62.8	18.4
60	16	3.70	58.1	17.0
55	13	3.56	53.7	15.7
50	10	3.42	49.5	14.5
47	8	3.33	47.1	13.8
45	7	3.28	45.5	13.3
40	4	3.15	41.7	12.2
35	2	3.03	38.1	11.2
30	-1	2.92	34.8	10.2
25	-4	2.81	31.6	9.3
20	-7	2.71	28.7	8.4
17	-8	2.65	27.0	7.9
15	-9	2.62	26.0	7.6
10	-12	2.53	23.5	6.9
5	-15	2.45	21.2	6.2
0	-18	2.37	19.1	5.6
-5	-21	2.31	17.2	5.0
-10	-23	2.24	15.6	4.6
-15	-26	2.19	14.1	4.1
-20	-29	2.14	12.9	3.8

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

THA060S2

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	60.8	17.8	3.71	.69	.85	1.00	58.4	17.1	4.11	.70	.87	1.00	55.8	16.4	4.56	.72	.89	1.00	53.1	15.6	5.05	.73	.92	1.00
	2000	945	63.4	18.6	3.75	.75	.94	1.00	60.9	17.8	4.15	.77	.97	1.00	58.3	17.1	4.60	.79	.99	1.00	55.7	16.3	5.11	.82	1.00	1.00
	2400	1135	65.9	19.3	3.79	.82	1.00	1.00	63.6	18.6	4.19	.84	1.00	1.00	61.0	17.9	4.65	.87	1.00	1.00	58.4	17.1	5.15	.90	1.00	1.00
67°F (19°C)	1600	755	65.0	19.0	3.77	.54	.67	.80	62.3	18.3	4.17	.54	.68	.83	59.5	17.4	4.63	.55	.69	.85	56.5	16.6	5.12	.56	.71	.88
	2000	945	67.3	19.7	3.81	.57	.72	.90	64.5	18.9	4.21	.58	.74	.93	61.5	18.0	4.66	.59	.76	.96	58.3	17.1	5.16	.61	.79	.99
	2400	1135	68.9	20.2	3.83	.61	.79	.99	66.0	19.3	4.24	.62	.82	1.00	62.9	18.4	4.69	.63	.84	1.00	59.7	17.5	5.19	.65	.88	1.00
71°F (22°C)	1600	755	69.6	20.4	3.84	.40	.52	.64	66.7	19.5	4.25	.40	.53	.65	63.7	18.7	4.70	.41	.54	.67	60.5	17.7	5.20	.41	.55	.69
	2000	945	71.8	21.0	3.88	.41	.56	.70	68.8	20.2	4.28	.42	.57	.72	65.5	19.2	4.74	.42	.58	.74	62.1	18.2	5.23	.43	.59	.76
	2400	1135	73.3	21.5	3.90	.43	.60	.77	70.1	20.5	4.31	.43	.61	.79	66.8	19.6	4.76	.44	.62	.82	63.3	18.6	5.26	.45	.64	.85

6 TON STANDARD EFFICIENCY - COOLING CAPACITY

THA072S2

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	70.3	20.6	4.70	.69	.83	.98	67.6	19.8	5.25	.70	.85	1.00	64.7	19.0	5.89	.71	.87	1.00	61.5	18.0	6.64	.73	.90	1.00
	2400	1135	73.2	21.5	4.75	.74	.92	1.00	70.3	20.6	5.31	.76	.94	1.00	67.4	19.8	5.95	.78	.97	1.00	64.2	18.8	6.70	.80	.99	1.00
	2880	1360	75.7	22.2	4.80	.81	.99	1.00	73.1	21.4	5.35	.83	1.00	1.00	70.3	20.6	5.99	.85	1.00	1.00	67.2	19.7	6.75	.88	1.00	1.00
67°F (19°C)	1920	905	74.9	22.0	4.79	.54	.66	.79	72.1	21.1	5.34	.54	.67	.81	68.9	20.2	5.97	.55	.69	.83	65.5	19.2	6.72	.56	.70	.86
	2400	1135	77.6	22.7	4.84	.57	.72	.88	74.5	21.8	5.38	.58	.73	.91	71.2	20.9	6.02	.59	.75	.93	67.6	19.8	6.77	.60	.78	.96
	2880	1360	79.4	23.3	4.88	.60	.78	.97	76.2	22.3	5.42	.61	.80	.98	72.8	21.3	6.06	.63	.82	1.00	69.2	20.3	6.81	.64	.85	1.00
71°F (22°C)	1920	905	80.0	23.4	4.89	.40	.52	.64	77.0	22.6	5.44	.41	.53	.65	73.7	21.6	6.08	.41	.53	.66	70.1	20.5	6.83	.41	.54	.68
	2400	1135	82.6	24.2	4.94	.42	.56	.69	79.3	23.2	5.49	.42	.56	.71	75.8	22.2	6.12	.42	.58	.73	72.0	21.1	6.87	.43	.59	.75
	2880	1360	84.3	24.7	4.98	.43	.59	.76	80.9	23.7	5.52	.43	.60	.78	77.3	22.7	6.16	.44	.62	.80	73.3	21.5	6.91	.44	.63	.83

5 TON STANDARD EFFICIENCY - HEATING CAPACITY

THA060S2

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	74.8	21.9	4.04	54.9	16.1	3.76	34.0	10.0	3.47	21.6	6.3	3.11	11.2	3.3	2.34
2000	945	75.6	22.2	3.77	55.7	16.3	3.49	34.8	10.2	3.20	22.4	6.6	2.84	12.0	3.5	2.07
2400	1135	76.5	22.4	3.60	56.6	16.6	3.32	35.7	10.5	3.03	23.3	6.8	2.67	12.9	3.8	1.90

6 TON STANDARD EFFICIENCY - HEATING CAPACITY

THA072S2

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	90.4	26.5	5.09	68.3	20.0	4.63	45.2	13.2	4.15	29.9	8.8	3.69	15.1	4.4	2.79
2400	1135	91.6	26.8	4.77	69.5	20.4	4.31	46.4	13.6	3.84	31.1	9.1	3.37	16.3	4.8	2.47
2880	1360	92.6	27.1	4.58	70.5	20.7	4.12	47.4	13.9	3.64	32.1	9.4	3.18	17.3	5.1	2.28

5 TON STANDARD EFFICIENCY - THA060S - HEATING PERFORMANCE at 2000 cfm Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	3.77	75.6	22.2
60	16	3.71	71.0	20.8
55	13	3.64	66.4	19.5
50	10	3.57	61.8	18.1
47	8	3.53	59.0	17.3
45	7	3.49	55.7	16.3
40	4	3.39	47.3	13.9
35	2	3.28	39.0	11.4
30	-1	3.24	36.9	10.8
25	-4	3.20	34.8	10.2
20	-7	3.16	32.7	9.6
17	-8	3.13	31.4	9.2
15	-9	3.10	29.6	8.7
10	-12	3.04	25.0	7.3
5	-15	2.84	22.4	6.6
0	-18	2.65	19.8	5.8
-5	-21	2.46	17.2	5.0
-10	-23	2.27	14.6	4.3
-15	-26	2.07	12.0	3.5
-20	-29	1.88	9.4	2.8

6 TON STANDARD EFFICIENCY - THA072S - HEATING PERFORMANCE at 2400 cfm Indoor Coil Air Volume

*Outdoor Temperature		Compressor Motor kW Input	Total Output	
°F	°C		kBtuh	kW
65	18	4.77	91.6	26.8
60	16	4.66	86.4	25.3
55	13	4.56	81.3	23.8
50	10	4.45	76.1	22.3
47	8	4.39	73.0	21.4
45	7	4.31	69.5	20.4
40	4	4.13	60.7	17.8
35	2	3.95	51.9	15.2
30	-1	3.89	49.2	14.4
25	-4	3.84	46.4	13.6
20	-7	3.78	43.7	12.8
17	-8	3.75	42.0	12.3
15	-9	3.70	39.9	11.7
10	-12	3.60	34.8	10.2
5	-15	3.37	31.1	9.1
0	-18	3.15	27.4	8.0
-5	-21	2.92	23.7	6.9
-10	-23	2.70	20.0	5.9
-15	-26	2.47	16.3	4.8
-20	-29	2.25	12.6	3.7

BLOWER DATA - DIRECT DRIVE

2 - 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 21.
- 2 - Any field installed accessories air resistance (electric heat, duct resistance, diffuser, etc.) See page 21.

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 (Down-Flow)				THA024S and THA030S		
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)				THA024S and THA030S		
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	---	---

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 Ton Standard Efficiency (Down-Flow)				THA036S					
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 Ton Standard Efficiency (Horizontal)				THA036S					
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 - DIRECT 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 21

2 - Any field installed accessories air resistance (electric heat, duct resistance, diffuser, etc.) See page 21

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
4 Ton Standard Efficiency (Down-Flow)									THA048S
0.0	1965	1615	1150	2135	1810	1325	2075	1725	1220
0.1	1910	1585	1145	2070	1775	1315	2025	1690	1215
0.2	1860	1555	1125	2010	1740	1290	1975	1650	1200
0.3	1810	1515	1090	1950	1695	1255	1920	1610	1175
0.4	1750	1465	1035	1890	1635	1200	1855	1555	1135
0.5	1685	1405	970	1815	1565	1135	1785	1500	1085
0.6	1600	1325	885	1730	1480	1055	1700	1430	1015
0.7	1505	1230	785	1620	1375	955	1605	1350	925
0.8	1390	1115	---	1490	1245	---	1495	1260	---
0.9	1250	975	---	1330	1085	---	1365	1160	---
1.0	1085	---	---	1135	---	---	1220	---	---
4 Ton Standard Efficiency (Horizontal)									THA048S
0.0	1865	1535	1090	2025	1725	1260	2055	1730	1255
0.1	1810	1505	1085	1960	1685	1250	1995	1685	1240
0.2	1765	1470	1065	1905	1645	1225	1935	1650	1220
0.3	1710	1430	1035	1845	1600	1190	1870	1605	1200
0.4	1655	1385	985	1785	1545	1140	1805	1555	1160
0.5	1585	1320	915	1710	1475	1075	1730	1495	1100
0.6	1495	1240	835	1615	1380	990	1645	1410	1015
0.7	1390	1135	730	1495	1265	890	1545	1310	895
0.8	1250	1000	---	1340	1115	---	1425	1175	---
0.9	1080	835	---	1150	930	---	1285	1010	---
1.0	875	---	---	915	---	---	1115	---	---

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 21
- 2 - Any field installed accessories air resistance (electric heat, duct resistance, diffuser, etc.) See page 21

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) THA036S

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 #1								Kit 5			
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 (Down-Flow) THA036S

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 #5						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) THA036S

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 #1											
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) THA036S

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 #5										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 21

2 - Any field installed accessories air resistance (electric heat, duct resistance, diffuser, etc.) See page 21

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

0.10 to 0.80 in. w.g. 4 Ton Standard Efficiency (Down-Flow) THA048S

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 #2											
1200	590	0.15	670	0.20	745	0.30	820	0.35	890	0.45	955	0.50	1020	0.60	1080	0.70
1300	630	0.20	700	0.25	770	0.30	840	0.40	910	0.45	970	0.55	1035	0.65	1090	0.75
1400	670	0.25	735	0.30	800	0.35	865	0.45	930	0.50	990	0.60	1050	0.70	1105	0.80
1500	705	0.30	765	0.35	830	0.40	890	0.50	950	0.55	1010	0.65	1070	0.75	1125	0.85
1600	745	0.35	800	0.40	860	0.50	920	0.55	975	0.65	1030	0.70	1085	0.80	1140	0.90
1700	785	0.40	840	0.50	895	0.55	945	0.60	1000	0.70	1055	0.80	1110	0.90	1160	1.00
1800	825	0.50	875	0.55	925	0.60	980	0.70	1030	0.80	1080	0.85	1130	0.95	1180	1.05
1900	865	0.55	915	0.65	960	0.70	1010	0.80	1060	0.85	1105	0.95	1155	1.05	1205	1.15
2000	910	0.65	950	0.70	995	0.80	1045	0.90	1090	0.95	1135	1.05	1180	1.15	1230	1.25

0.90 to 1.60 in. w.g. 4 Ton Standard Efficiency (Down-Flow) THA048S

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 #6												Field			
1200	1135	0.80	1185	0.90	1235	1.00	1285	1.15	1330	1.25	1375	1.35	1420	1.50	1460	1.60
1300	1145	0.85	1200	0.95	1250	1.05	1300	1.20	1345	1.30	1390	1.45	1435	1.55	1475	1.70
1400	1160	0.90	1215	1.00	1265	1.15	1310	1.25	1355	1.35	1400	1.50	1445	1.60	1485	1.75
1500	1175	0.95	1225	1.05	1275	1.20	1325	1.30	1370	1.45	1415	1.55	1460	1.70	1500	1.85
1600	1195	1.05	1245	1.15	1290	1.25	1340	1.40	1385	1.50	1430	1.65	1470	1.75	1510	1.90
1700	1210	1.10	1260	1.20	1305	1.35	1355	1.45	1400	1.60	1440	1.70	1485	1.85	1525	2.00
1800	1230	1.20	1275	1.30	1325	1.40	1370	1.55	1415	1.70	1455	1.80	1500	1.95	1540	2.10
1900	1250	1.25	1295	1.40	1340	1.50	1385	1.65	1430	1.75	1470	1.90	1515	2.05	1555	2.20
2000	1275	1.35	1320	1.50	1360	1.60	1405	1.75	1445	1.85	1490	2.00	1530	2.15	1570	2.30

0.10 to 0.80 in. w.g. 4 Ton Standard Efficiency (Horizontal) THA048S

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 #2											
1200	600	0.20	660	0.20	725	0.25	790	0.35	855	0.40	915	0.50	975	0.60	1030	0.70
1300	640	0.20	695	0.25	755	0.30	815	0.40	875	0.45	935	0.55	990	0.60	1045	0.70
1400	685	0.25	735	0.30	790	0.35	845	0.45	900	0.50	955	0.60	1005	0.65	1060	0.75
1500	725	0.35	770	0.35	820	0.40	870	0.50	925	0.55	975	0.65	1025	0.75	1075	0.80
1600	770	0.40	810	0.45	855	0.50	905	0.55	950	0.60	1000	0.70	1050	0.80	1095	0.90
1700	810	0.45	850	0.50	895	0.55	935	0.65	980	0.70	1030	0.80	1075	0.85	1120	0.95
1800	855	0.55	890	0.60	930	0.65	970	0.70	1015	0.80	1055	0.85	1100	0.95	1145	1.05
1900	900	0.65	935	0.70	970	0.75	1010	0.80	1050	0.90	1090	0.95	1130	1.05	1170	1.15
2000	940	0.75	975	0.80	1010	0.85	1045	0.90	1085	1.00	1120	1.05	1160	1.15	1195	1.25

0.90 to 1.60 in. w.g. 4 Ton Standard Efficiency (Horizontal) THA048S

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 #6															
1200	1080	0.75	1130	0.85	1180	1.00	1225	1.10	1265	1.20	1305	1.30	1345	1.40	1385	1.55
1300	1095	0.80	1145	0.90	1190	1.00	1235	1.15	1280	1.25	1320	1.35	1360	1.50	1400	1.60
1400	1110	0.85	1160	1.00	1205	1.10	1250	1.20	1295	1.30	1335	1.45	1375	1.55	1415	1.70
1500	1125	0.90	1175	1.05	1220	1.15	1265	1.25	1305	1.35	1350	1.50	1390	1.65	1430	1.75
1600	1145	1.00	1190	1.10	1235	1.20	1280	1.35	1320	1.45	1365	1.60	1405	1.70	1440	1.80
1700	1165	1.05	1210	1.15	1255	1.30	1295	1.40	1335	1.50	1380	1.65	1415	1.75	1455	1.90
1800	1185	1.15	1230	1.25	1270	1.35	1315	1.50	1355	1.60	1395	1.75	1430	1.85	1470	2.00
1900	1210	1.25	1250	1.35	1290	1.45	1330	1.55	1370	1.70	1410	1.80	1450	1.95	1485	2.10
2000	1235	1.35	1275	1.45	1315	1.55	1355	1.70	1390	1.80	1430	1.95	1465	2.05	1500	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 21

2 - Any field installed accessories air resistance (duct resistance, diffuser, etc.) See page 21

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

0.10 to 0.80 in. w.g. 5 Ton Standard Efficiency (Down-Flow) THA060S

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 #3									
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 (Down-Flow) THA060S

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 #3						High Static - Drive Kit #7									
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

0.10 to 0.80 in. w.g. 5 Ton Standard Efficiency (Horizontal) THA060S

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 #3													
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) THA060S

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 #3						High Static - Drive Kit #7									
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 21

2 - Any field installed accessories air resistance (electric heat, duct resistance, diffuser, etc.) See page 21

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)

THA072S

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	775	0.45	820	0.50	870	0.55	915	0.65	965	0.70	1010	0.75	1060	0.85	1105	0.90
2000	810	0.55	855	0.60	900	0.65	945	0.70	990	0.75	1035	0.85	1080	0.90	1125	1.00
2100	850	0.60	890	0.65	935	0.75	975	0.80	1020	0.85	1060	0.95	1105	1.00	1145	1.10
2200	885	0.70	925	0.75	965	0.80	1005	0.90	1045	0.95	1090	1.05	1130	1.10	1170	1.20
2300	920	0.80	960	0.85	1000	0.90	1035	1.00	1075	1.05	1115	1.15	1155	1.20	1195	1.30
2400	960	0.90	995	0.95	1030	1.05	1070	1.10	1105	1.15	1145	1.25	1180	1.30	1220	1.40
2500	995	1.00	1030	1.10	1065	1.15	1100	1.20	1135	1.30	1175	1.35	1210	1.45	1245	1.50
2600	1035	1.15	1065	1.20	1100	1.25	1135	1.35	1170	1.40	1205	1.50	1240	1.60	1275	1.65
2700	1070	1.30	1100	1.35	1135	1.40	1170	1.50	1200	1.55	1235	1.65	1265	1.70	1300	1.80
2800	1105	1.40	1140	1.50	1170	1.55	1200	1.65	1235	1.70	1265	1.80	1295	1.85	1330	1.95
2900	1145	1.60	1175	1.65	1205	1.70	1235	1.80	1265	1.85	1295	1.95	1330	2.05	1360	2.10

0.90 to 1.60 in. w.g.

6 Ton Standard Efficiency (Down-Flow)

THA072S

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	1150	1.00	1190	1.10	1235	1.20	1275	1.25	1315	1.35	1355	1.45	1395	1.55	1435	1.65
2000	1165	1.10	1210	1.15	1250	1.25	1290	1.35	1330	1.45	1370	1.55	1410	1.65	1445	1.75
2100	1190	1.15	1230	1.25	1270	1.35	1310	1.45	1350	1.55	1385	1.65	1425	1.75	1460	1.85
2200	1210	1.25	1250	1.35	1290	1.45	1325	1.55	1365	1.65	1400	1.75	1440	1.85	1475	1.95
2300	1235	1.40	1270	1.45	1310	1.55	1345	1.65	1385	1.75	1420	1.85	1455	1.95	1490	2.05
2400	1255	1.50	1295	1.60	1330	1.65	1365	1.75	1400	1.85	1440	2.00	1475	2.10	1505	2.20
2500	1280	1.60	1315	1.70	1355	1.80	1390	1.90	1425	2.00	1455	2.10	1490	2.20	1525	2.30
2600	1310	1.75	1340	1.85	1375	1.95	1410	2.05	1445	2.15	1480	2.25	1510	2.35	1545	2.45
2700	1335	1.90	1370	2.00	1400	2.10	1435	2.20	1465	2.30	1500	2.40	1530	2.50	1565	2.60
2800	1360	2.05	1395	2.15	1425	2.25	1460	2.35	1490	2.45	1520	2.55	1555	2.65	1585	2.80
2900	1390	2.20	1420	2.30	1450	2.40	1485	2.50	1515	2.60	1545	2.70	1575	2.85	1605	2.95

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 21

2 - Any field installed accessories air resistance (electric heat, duct resistance, diffuser, etc.) See page 21

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

0.10 to 0.80 in. w.g.

6 Ton Standard Efficiency (Horizontal)

THA072S

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	905	0.60	955	0.65	1000	0.70	1045	0.75	1090	0.85	1135	0.90	1175	0.95	1215	1.05
2000	945	0.65	995	0.75	1040	0.80	1085	0.85	1125	0.95	1170	1.00	1210	1.05	1250	1.15
2100	990	0.75	1035	0.85	1080	0.90	1120	0.95	1160	1.05	1205	1.10	1240	1.20	1280	1.25
2200	1030	0.85	1075	0.95	1115	1.00	1160	1.10	1200	1.15	1235	1.25	1275	1.30	1310	1.40
2300	1075	1.00	1115	1.05	1155	1.15	1195	1.20	1235	1.30	1275	1.35	1310	1.45	1345	1.50
2400	1115	1.10	1155	1.20	1195	1.25	1235	1.35	1275	1.45	1310	1.50	1345	1.60	1380	1.70
2500	1160	1.25	1200	1.35	1235	1.40	1275	1.50	1310	1.60	1345	1.65	1380	1.75	1415	1.85
2600	1205	1.40	1240	1.50	1275	1.55	1315	1.65	1350	1.75	1385	1.85	1415	1.90	1450	2.00
2700	1245	1.55	1285	1.65	1320	1.75	1355	1.85	1390	1.95	1420	2.00	1455	2.10	1485	2.20
2800	1290	1.75	1325	1.85	1360	1.95	1395	2.00	1425	2.10	1460	2.20	1490	2.30	1520	2.40
2900	1335	1.95	1365	2.00	1400	2.10	1435	2.20	1465	2.30	1500	2.40	1530	2.50	1560	2.60

0.90 to 1.60 in. w.g.

6 Ton Standard Efficiency (Horizontal)

THA072S

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 #8															
1900	1255	1.10	1295	1.15	1335	1.25	1370	1.30	1405	1.40	1440	1.45	1475	1.55	1510	1.65
2000	1285	1.20	1325	1.30	1360	1.35	1395	1.45	1430	1.50	1465	1.60	1500	1.70	1530	1.75
2100	1315	1.35	1355	1.40	1390	1.50	1425	1.55	1460	1.65	1490	1.70	1525	1.80	1555	1.90
2200	1350	1.45	1385	1.55	1420	1.65	1455	1.70	1485	1.80	1520	1.85	1550	1.95	1585	2.05
2300	1380	1.60	1415	1.70	1450	1.75	1480	1.85	1515	1.95	1545	2.00	1580	2.10	1610	2.20
2400	1415	1.75	1450	1.85	1480	1.90	1515	2.00	1545	2.10	1575	2.20	1605	2.25	1635	2.35
2500	1450	1.95	1480	2.00	1515	2.10	1545	2.20	1575	2.25	1605	2.35	1635	2.45	1665	2.55
2600	1480	2.10	1515	2.20	1545	2.25	1575	2.35	1605	2.45	1635	2.55	1665	2.65	1695	2.75
2700	1520	2.30	1550	2.40	1580	2.45	1610	2.55	1640	2.65	1670	2.75	1695	2.85	1725	2.95
2800	1555	2.50	1585	2.60	1615	2.70	1645	2.80	1670	2.85	1700	2.95	1730	3.05	1760	3.20
2900	1590	2.70	1620	2.80	1650	2.90	1675	3.00	1705	3.10	1735	3.20	1760	3.30	1790	3.40

FACTORY INSTALLED BELT DRIVE KIT SPECIFICATIONS

Motor hp		RPM Range							
Nominal	Maximum	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 by Lennox 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.	
	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.	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 and 072	Cooling	67	72	77	76	73	68	61	82
	Heating	70	72	77	76	73	69	60	82

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

¹ Tested according to ARI Standard 270-95 test conditions.

ELECTRICAL/ELECTRIC HEAT DATA

2 - 2.5 TON

2 AND 2.5 TON STANDARD EFFICIENCY		THA024S	THA030S
Voltage - 60hz		208/230V-1ph	208/230V-1ph
Compressor	Rated Load Amps	10.3	12.2
	Locked Rotor Amps	56	67
Outdoor Fan Motor	Full Load Amps	1.7	1.7
	Locked Rotor Amps	3.1	3.1
Service Outlet 115V GFI		15	15
Indoor Blower Motor	Horsepower	.25	.25
	Rated Load Amps	1.7	1.7
	Locked Rotor Amps	2.2	2.2
¹ Maximum Overcurrent Protection	Unit Only	25	30
	7.5 kW	60	60
	10 kW	70	80
² Minimum Circuit Ampacity	Unit Only	17	19
	7.5 kW	56	58
	10 kW	69	71
Unit Fuse Block		28W68	28W69
Disconnect Kit	Hinged - 0-10 kW	20W21	20W21
	Standard Access - 0-10 kW	20W15	20W15

ELECTRICAL/ELECTRIC HEAT DATA

3 - 4 TON

3 TON STANDARD EFFICIENCY

THA036S

Voltage - 60hz		208/230V-1ph			208/230V-3ph			460V-3ph			575V-3ph		
Compressor	Rated Load Amps	13.5			9.6			4.5			3.6		
	Locked Rotor Amps	73.0			63.0			31.0			24.8		
Outdoor Fan Motor	Full Load Amps	1.7			1.7			1.1			0.7		
	Locked Rotor Amps	3.1			3.1			2.2			1.3		
Power Exhaust Fan	Horsepower	3/4			3/4			3/4			3/4		
	Full Load Amps	5.0			5.0			2.2			1.5		
	Locked Rotor Amps	7.8			7.8			3.4			2.9		
Service Outlet 115V GFI		15			15			15			15		
Indoor Blower Motor	Horsepower	.5	1.5	.5	1.5	2	.5	1.5	2	.5	1.5	2	
	Rated Load Amps	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	55	6.8	40	46.9	3.8	20	20.4	3.8	15	16.2	
1 Maximum Overcurrent Protection	Unit Only	35	40	25	25	30	15	15	15	15	15	15	
	with power exhaust	0 kW	40	45	30	30	35	15	15	15	15	15	
	7.5 kW	70	80	45	50	50	25	25	25	20	20	20	
	15 kW	110	125	70	70	80	35	35	35	30	30	30	
2 Minimum Circuit Ampacity	Unit Only	22	31	17	20	22	9	10	11	7	8	8	
	with power exhaust	0 kW	27	36	22	25	27	11	12	13	9	10	
	7.5 kW	66	75	45	47	49	22	23	24	18	19	19	
	15 kW	105	114	67	70	72	33	35	35	27	28	28	
Unit Fuse Block	Unit Only	17W94	17W95	18W00	18W00	18W01	18W06	18W06	18W06	18W06	18W06	18W06	
	with power exhaust	17W95	17W96	18W01	18W01	18W02	18W06	18W06	18W06	18W06	18W06	18W06	
Disconnect	Standard Access Panel	0-7.5 kW	20W15	20W15	20W15	20W15	20W15	20W15	20W15	20W15	20W15	20W15	
		15 kW	20W16	20W16	20W15	20W15	20W15	20W15	20W15	20W15	20W15	20W15	
	Hinged Access Panel	0-7.5 kW	20W21	20W21	20W21	20W21	20W21	20W21	20W21	20W21	20W21	20W21	
		15 kW	20W22	20W22	20W21	20W21	20W21	20W21	20W21	20W21	20W21	20W21	

4 TON STANDARD EFFICIENCY

THA048S

Voltage - 60hz		208/230V-1ph			208/230V-3ph			460V-3ph			575V-3ph		
Compressor	Rated Load Amps	18.3			12.4			6.4			4.8		
	Locked Rotor Amps	109.0			88.0			44.0			34.0		
Outdoor Fan Motor	Full Load Amps	1.7			1.7			1.1			0.7		
	Locked Rotor Amps	3.1			3.1			2.2			1.3		
Power Exhaust Fan	Horsepower	.75			.75			.75			.75		
	Full Load Amps	5.0			5.0			2.2			1.5		
	Locked Rotor Amps	7.8			7.8			3.4			2.9		
Service Outlet 115V GFI		15			15			15			15		
Indoor Blower Motor	Horsepower	.5	1.5	.5	1.5	2	.5	1.5	2	.5	1.5	2	
	Rated Load Amps	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	55	6.8	40	46.9	3.8	20	20.4	3.8	15	16.2	
1 Maximum Overcurrent Protection	Unit Only	45	50	30	35	35	15	15	15	15	15	15	
	with power exhaust	0 kW	50	50	35	40	40	15	20	20	15	15	
	7.5 kW	80	90	50	60	60	25	30	30	20	20	20	
	15 kW	125	125	80	80	80	40	40	40	30	30	30	
2 Minimum Circuit Ampacity	Unit Only	28	37	21	23	25	11	12	13	9	10	10	
	with power exhaust	0 kW	33	42	26	28	30	13	15	15	10	11	
	7.5 kW	72	81	48	51	53	25	26	26	19	20	20	
	15 kW	111	120	71	74	75	36	37	38	28	29	29	
Unit Fuse Block	Unit Only	17W96	17W97	18W01	18W02	18W02	18W06	18W06	18W06	18W06	18W06	18W06	
	with power exhaust	17W97	17W97	18W02	18W03	18W03	18W06	18W07	18W07	18W06	18W06	18W06	
Disconnect	Standard Access Panel	0-7.5 kW	20W15	20W15	20W15	20W15	20W15	20W15	20W15	20W15	20W15	20W15	
		15 kW	20W16	20W16	20W15	20W15	20W15	20W15	20W15	20W15	20W15	20W15	
	Hinged Access Panel	0-7.5 kW	20W21	20W21	20W21	20W21	20W21	20W21	20W21	20W21	20W21	20W21	
		15 kW	20W22	20W22	20W21	20W21	20W21	20W21	20W21	20W21	20W21	20W21	

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/ELECTRIC HEAT DATA
5 TON
5 TON STANDARD EFFICIENCY
THA060S

Voltage - 60hz		208/230V-1ph	208/230V-3ph		460V-3ph		575V-3ph	
Compressor	Rated Load Amps	25.0	17.3		6.7		5.8	
	Locked Rotor Amps	148.0	123.0		49.5		40.0	
Outdoor Fan Motor	Full Load Amps	2.4	2.4		1.3		1.0	
	Locked Rotor Amps	4.7	4.7		2.4		1.9	
Power Exhaust Fan	Horsepower	.75	.75		.75		.75	
	Full Load Amps	5.0	5.0		2.2		1.5	
	Locked Rotor Amps	7.8	7.8		3.4		2.9	
Service Outlet 115V GFI		15	15		15		15	
Indoor Blower Motor	Horsepower	1.5	1.5	2	1.5	2	1.5	2
	Rated Load Amps	11.5	5.7	7.5	2.8	3.4	2.4	2.7
	Locked Rotor Amps	55	40	46.9	20	20.4	15	16.2
¹ Maximum Overcurrent Protection	Unit Only	70	45	45	15	15	15	15
	with power exhaust 0 kW	70	50	50	20	20	15	15
	7.5 kW	100	70	70	30	30	25	25
	15 kW	150	80	90	40	40	35	35
	22.5 kW	175	110	110	50	50	40	40
² Minimum Circuit Ampacity	Unit Only	46	30	32	13	14	11	11
	with power exhaust 0 kW	51	35	37	15	16	13	13
	7.5 kW	90	58	60	26	27	22	22
	15 kW	129	80	82	38	38	31	31
	22.5 kW	168	103	105	49	50	40	40
Unit Fuse Block	Unit Only	17W99	18W04	18W04	18W06	18W06	18W06	18W06
	with power exhaust	17W99	18W05	18W05	18W07	18W07	18W06	18W06
Disconnect	Standard Access Panel	7.5-15kW	20W19	20W18	20W18	20W18	20W18	20W18
		22.5 kW	N/A	20W19	20W19	20W18	20W18	20W18
	Hinged Access Panel	7.5-15kW	20W25	20W24	20W24	20W24	20W24	20W24
		22.5 kW	N/A	20W25	20W25	20W24	20W24	20W24

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/ELECTRIC HEAT DATA

6 TON

6 TON STANDARD EFFICIENCY

THA072S

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	.75		.75		.75		
	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	50	50	20	25	20	20	
	with power exhaust	0 kW	50	50	25	25	20	20
		7.5 kW	70	70	35	35	25	25
		15 kW	90	90	45	45	35	35
		22.5 kW	110	110	60	60	45	45
		30 kW	150	150	70	70	60	60
² Minimum Circuit Ampacity	Unit Only	32	34	16	16	13	13	
	with power exhaust	0 kW	37	39	18	19	15	15
		7.5 kW	59	61	29	30	24	24
		15 kW	82	84	41	41	33	33
		22.5 kW	105	106	52	52	42	42
		30 kW	127	129	63	64	51	51
³ Unit Fuse Block	Unit Only	18W05	18W05	18W07	18W08	18W07	18W07	
	with power exhaust	18W05	18W05	18W08	18W08	18W07	18W07	
Disconnect	Standard Access Panel	0-15kW	20W18	20W18	20W18	20W18	20W18	
		22.5-30kW	20W19	20W19	20W18	20W18	20W18	20W18
	Hinged Access Panel	0-15kW	20W24	20W24	20W24	20W24	20W24	20W24
		22.5-30kW	20W25	20W25	20W24	20W24	20W24	20W24

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

¹ HACR type breaker or fuse.

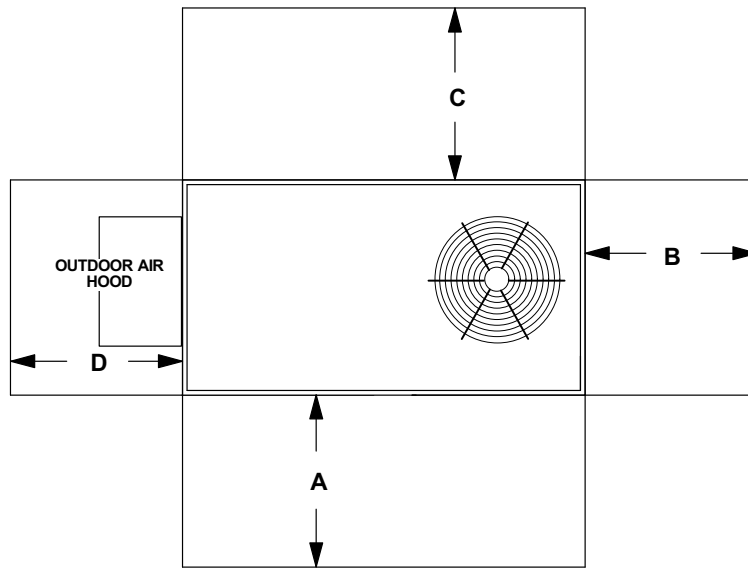
² Refer to National or Canadian Electrical Code manual to determine wire, fuse and disconnect size requirements.

³ Only used with electric heat.

ELECTRIC HEAT CAPACITIES

Input Voltage	7.5 kW			10 kW			15 kW			22.5 kW			30 kW		
	No of Steps	kW input	Btuh Output	No of Steps	kW input	Btuh Output	No of Steps	kW input	Btuh Output	No of Steps	kW input	Btuh Output	No of Steps	kW input	Btuh Output
208	1	5.6	19,200	1	7.5	25,600	1	11.2	38,200	1	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	1	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	1	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	1	22.5	76,800	1	30.0	102,400
440	1	6.3	21,500	---	---	---	1	12.6	43,000	1	18.9	64,500	1	25.2	86,000
460	1	6.9	23,500	---	---	---	1	13.8	47,000	1	20.7	70,700	1	27.5	93,900
480	1	7.5	25,600	---	---	---	1	15.0	51,200	1	22.5	76,800	1	30.0	102,400
550	1	6.3	21,500	---	---	---	1	12.6	43,000	1	18.9	64,500	1	25.2	86,000
575	1	6.9	23,500	---	---	---	1	13.8	47,000	1	20.7	70,700	1	27.5	93,900
600	1	7.5	25,600	---	---	---	1	15.0	51,200	1	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.

OPTIONAL CONVENTIONAL TEMPERATURE CONTROL SYSTEMS - FIELD INSTALLED

COMMERCIAL TOUCHSCREEN THERMOSTAT



Intuitive Touchscreen Interface - **Two Stage Heating / Two Stage Cooling Conventional or Heat Pump** - Seven Day Programmable - Four Time Periods/Day - Economizer Output - Title 24 Compliant - ENERGY STAR® Qualified - Backlit Display - Automatic Changeover

C0STAT02AE1L

Sensors For Touchscreen Thermostat

- 1 Remote non-adjustable wall mount 20k temperature sensor C0SNZN01AE1-
- 1 Remote non-adjustable wall mount 10k averaging temperature sensor C0SNZN73AE1-
- 1 Remote non-adjustable duct mount temperature sensor C0SNDC00AE1-
- Outdoor temperature sensor C0SNSR03AE1-

Accessories For Touchscreen Thermostat

- Locking cover (clear) C0MISC15AE1-

¹ Remote sensors for C0STAT02AE1L can be applied in the following combinations: (1) C0SNZN01AE1-, (2) C0SNZN73AE1-, (2) C0SNZN01AE1- and (1) C0SNZN73AE1-, (4) C0SNZN01AE1-, (3) C0SNZN01AE1- and (2) C0SNZN73AE1.

DIGITAL NON-PROGRAMMABLE THERMOSTATS



Intuitive Interface - Automatic Changeover - Simple Up and Down Temperature Control

Two-stage heating / cooling conventional systems C0STAT10AE1L

Sensor For Digital Non-Programmable Thermostats Above

- Remote wall mounted temperature sensor C0SNZN00AE1-



Intuitive Interface - Automatic Changeover - Backlit Display - Simple Up and Down Temperature Control

One-stage heating / cooling conventional systems C0STAT12AE1L

Sensor For Digital Non-Programmable Thermostats Above

- Outdoor temperature sensor C0SNSR04AE1-

Accessories For Digital Non-Programmable Thermostats Above

- Optional wall mounting plate C0MISC17AE1-

WEIGHT DATA

Model Number	Net				Shipping			
	Base		Max.		Base		Max.	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg
024	537	244	649	294	597	271	718	326
030	539	244	651	295	599	272	720	327
036	544	247	656	298	604	273	725	329
048	566	257	678	308	626	284	747	339
060	671	304	774	351	731	332	846	384
072	676	307	779	353	736	334	851	386

Base Unit - The unit with NO OPTIONS.

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

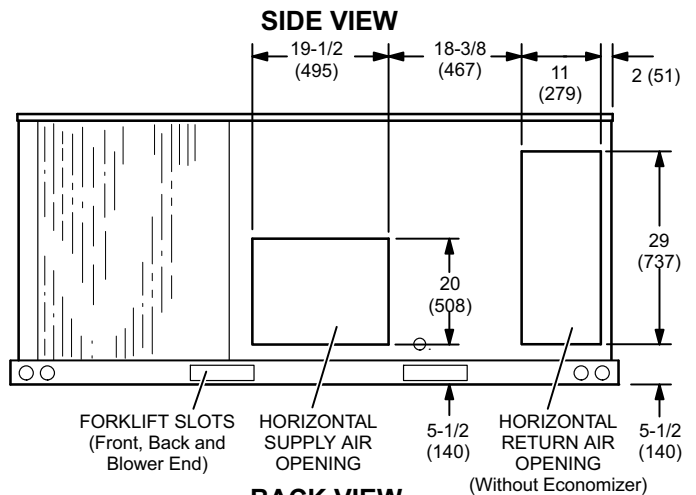
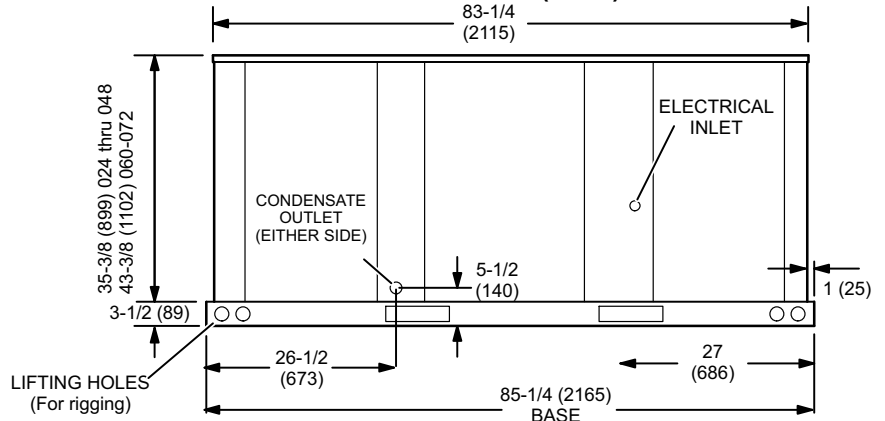
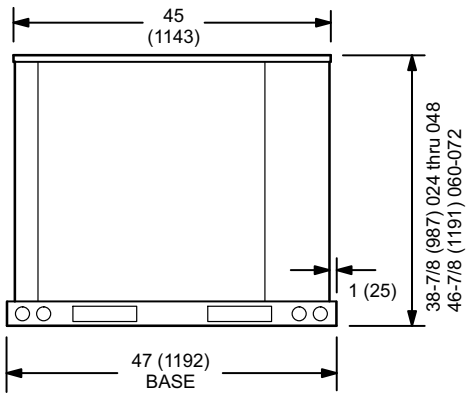
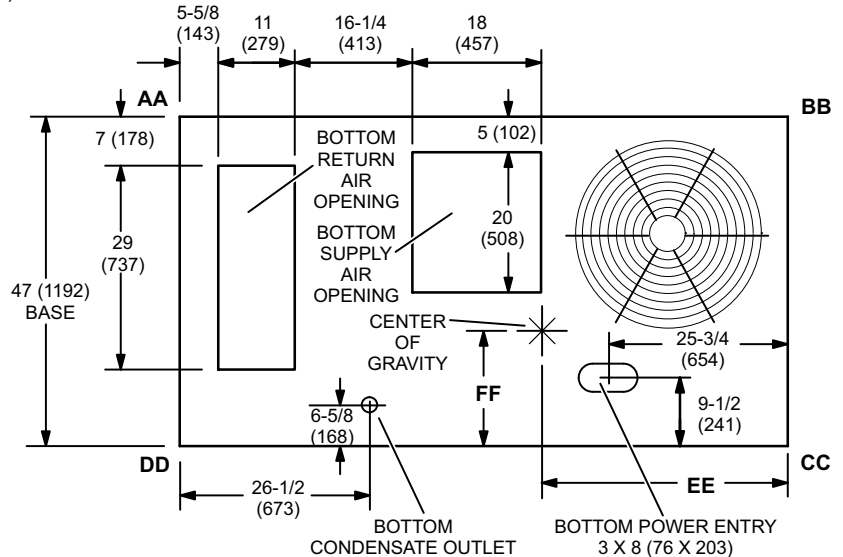
OPTIONS / ACCESSORIES

		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 - DOWN-FLOW				
Cliplock 1000				
8 in. height		T1CURB23AN1	78	35
14 in. height		T1CURB20AN1	96	44
18 in. height		T1CURB21AN1	108	49
24 in. height		T1CURB22AN1	126	57
Hinged				
8 in. height		T1CURB30AN1	78	35
18 in. height		T1CURB32AN1	108	49
24 in. height		T1CURB33AN1	126	57
Standard				
14 in. height		T1CURB10AN1	96	44
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)

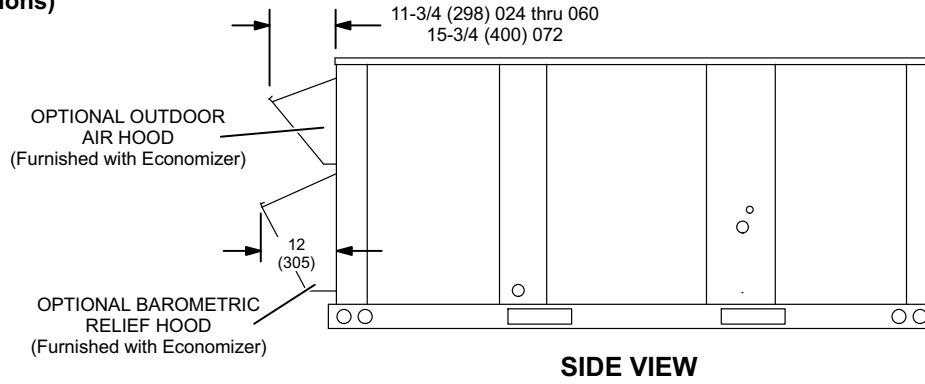
Model No.	CORNER WEIGHTS								CENTER OF GRAVITY															
	AA		BB		CC		DD		EE		FF		FF											
	Base lbs.	Max. kg	Base lbs.	Max. kg	Base lbs.	Max. kg	Base lbs.	Max. kg	Base in.	Max. mm	Base in.	Max. mm	Base in.	Max. mm										
024	93	42	117	53	113	51	132	60	182	83	213	97	150	68	188	85	38-1/2	978	40	1016	18	457	18	457
030	93	42	117	53	113	51	132	60	182	83	213	97	150	68	188	85	38-1/2	978	40	1016	18	457	18	457
036	94	43	118	54	114	52	133	60	184	83	215	98	152	69	190	86	38-1/2	978	40	1016	18	457	18	457
048	98	44	122	55	119	54	138	63	192	87	222	101	158	72	196	89	38-1/2	978	40	1016	18	457	18	457
060	116	53	139	63	141	64	157	71	227	103	253	115	187	85	224	102	38-1/2	978	40	1016	18	457	18	457
072	117	53	140	64	142	64	158	72	229	104	255	116	188	85	225	102	38-1/2	978	40	1016	18	457	18	457

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

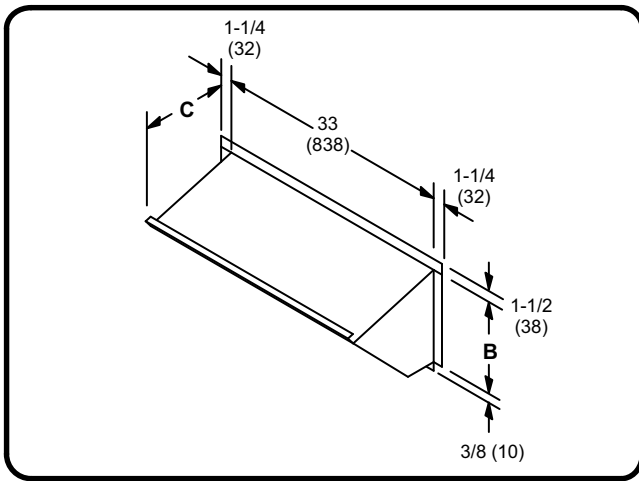


ACCESSORY DIMENSIONS - INCHES (MM)

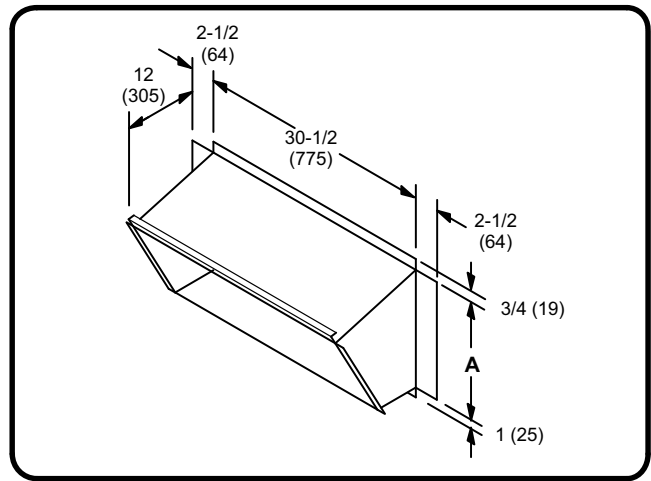
OUTDOOR AIR HOOD DETAIL FOR OPTIONAL ECONOMIZER AND BAROMETRIC RELIEF DAMPERS (Down-Flow Applications)



OUTDOOR AIR HOOD FOR ECONOMIZER (Furnished)

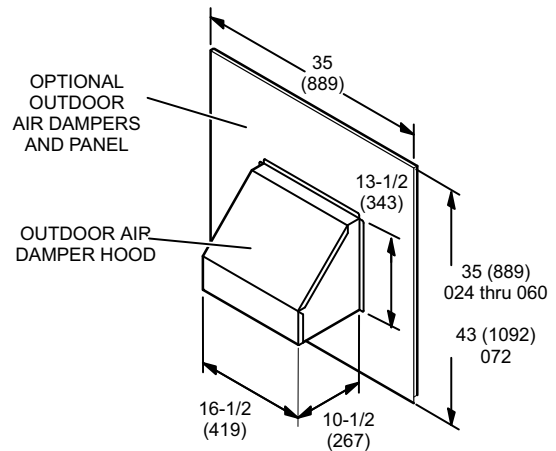
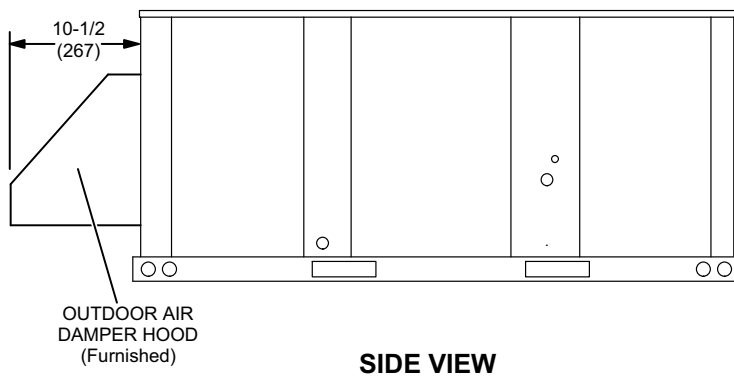


BAROMETRIC RELIEF HOOD FOR ECONOMIZER (Furnished)



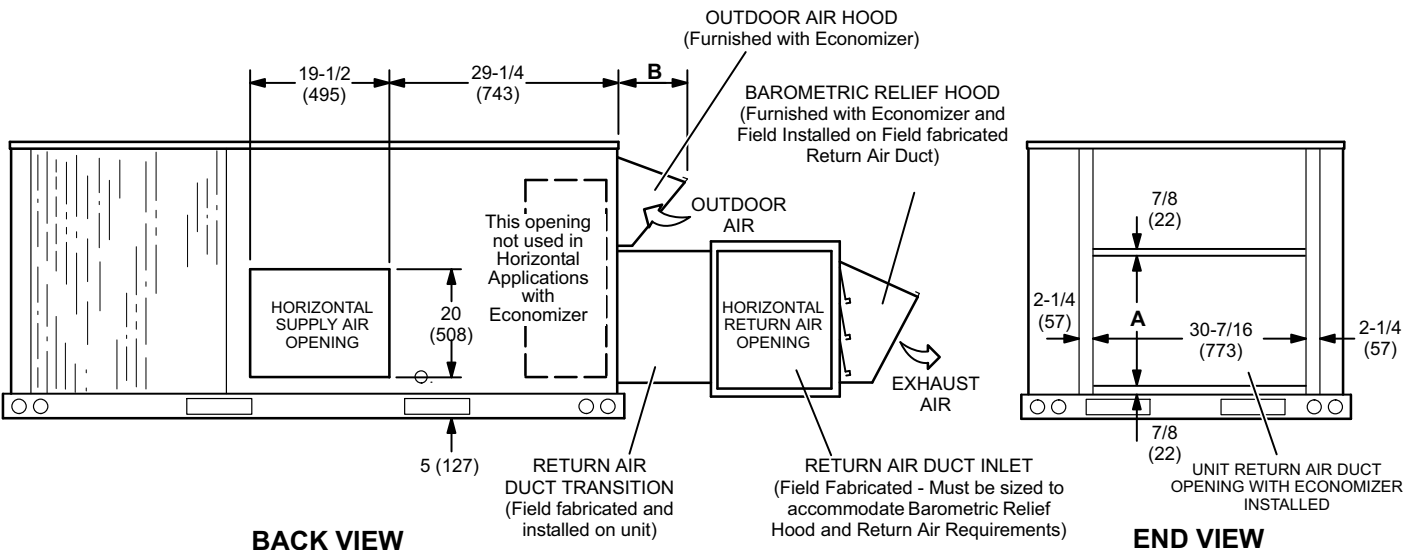
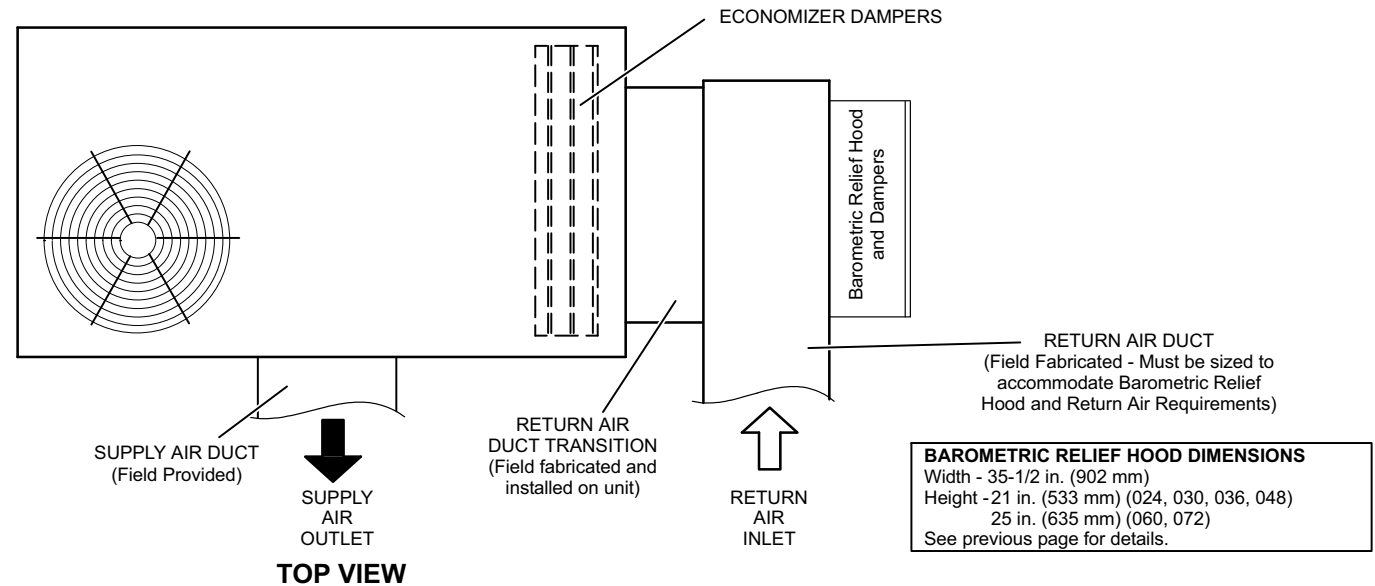
Model No.	A		B		C	
	in.	mm	in.	mm	in.	mm
024, 030, 036, 048	19-1/4	489	13	330	11-3/4	298
060, 072	23-1/4	591	17	432	15-3/4	400

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



ACCESSORY DIMENSIONS - INCHES (MM)

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

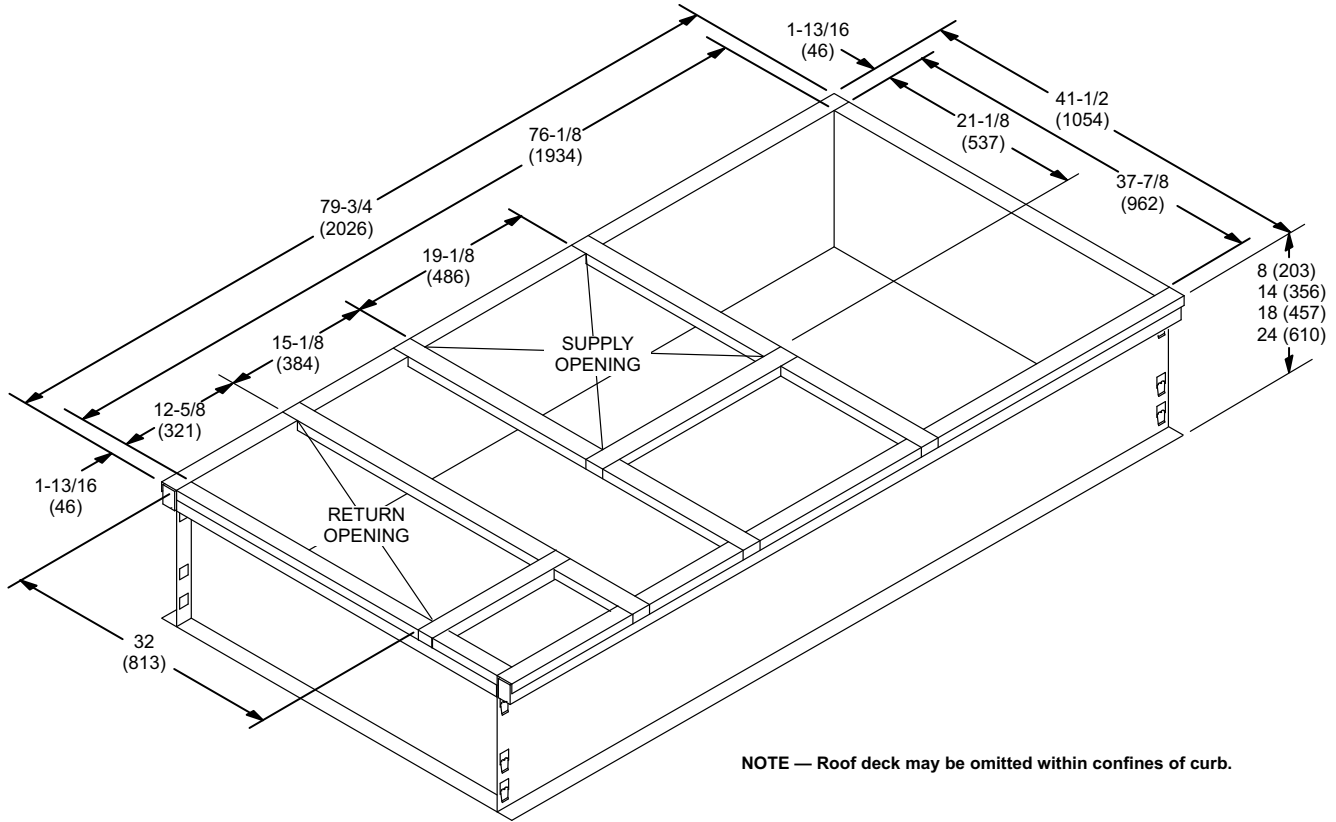


NOTE - Return Air Duct and Transition must be supported.

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

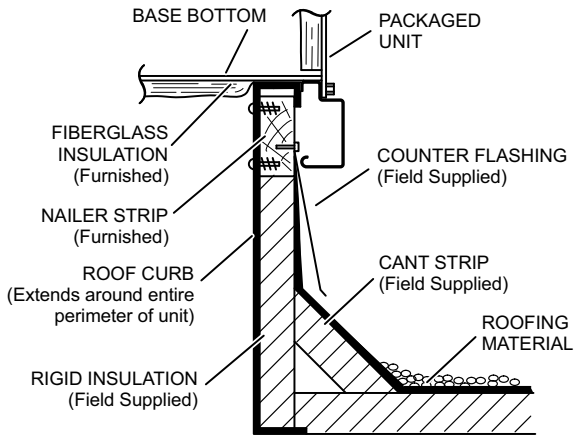
ACCESSORY DIMENSIONS - INCHES (MM)

CLIPLOCK 1000 ROOF CURBS - DOUBLE DUCT OPENING

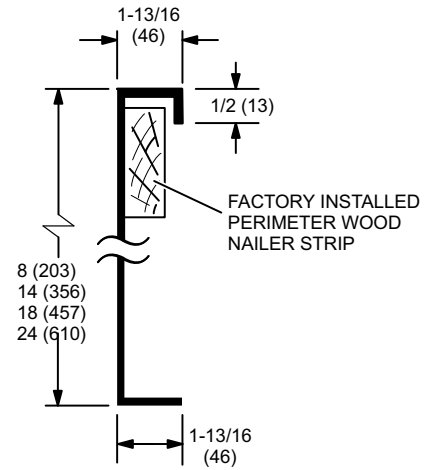


NOTE — Roof deck may be omitted within confines of curb.

TYPICAL FLASHING DETAIL FOR ROOF CURB

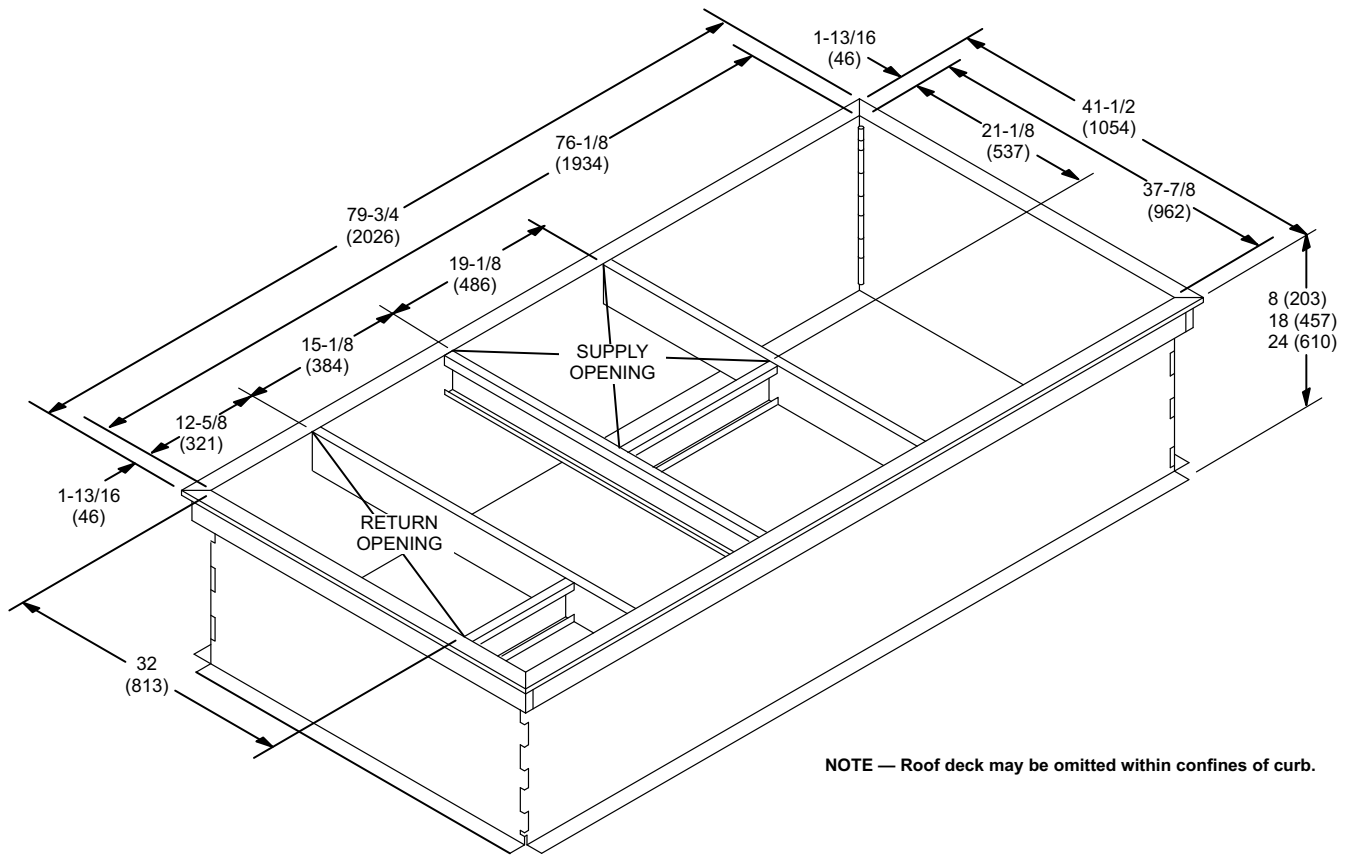


DETAIL ROOF CURB

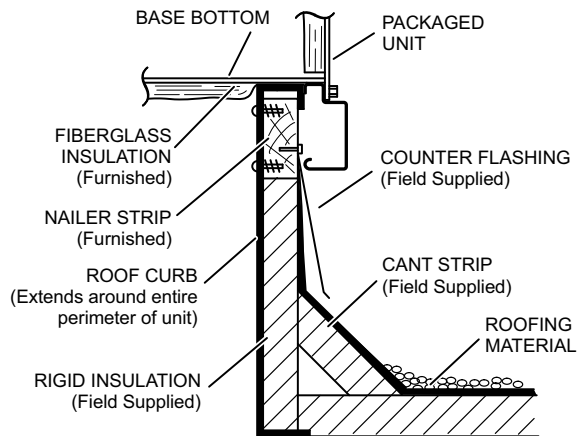


ACCESSORY DIMENSIONS - INCHES (MM)

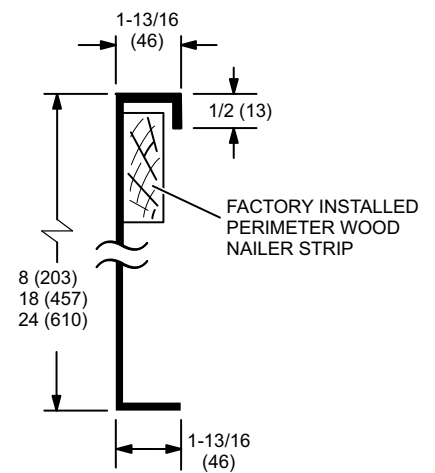
HINGED ROOF CURBS - DOUBLE DUCT OPENING



TYPICAL FLASHING DETAIL FOR ROOF CURB

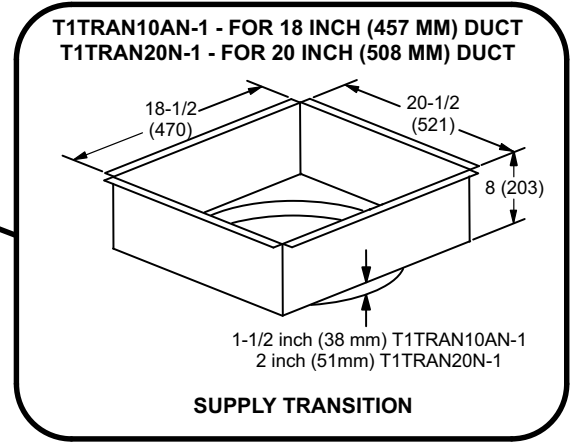
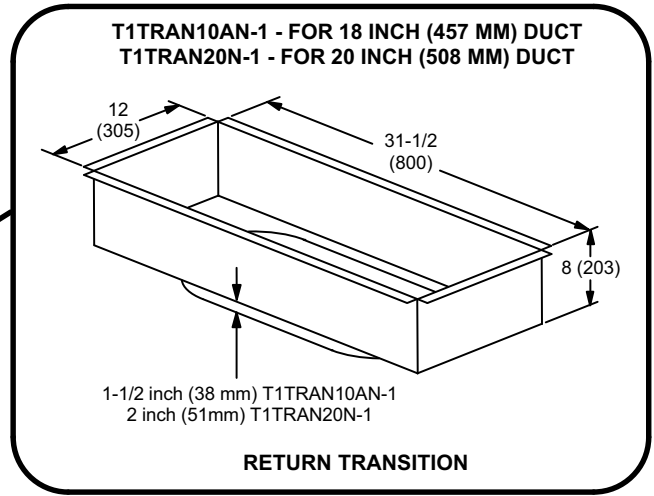
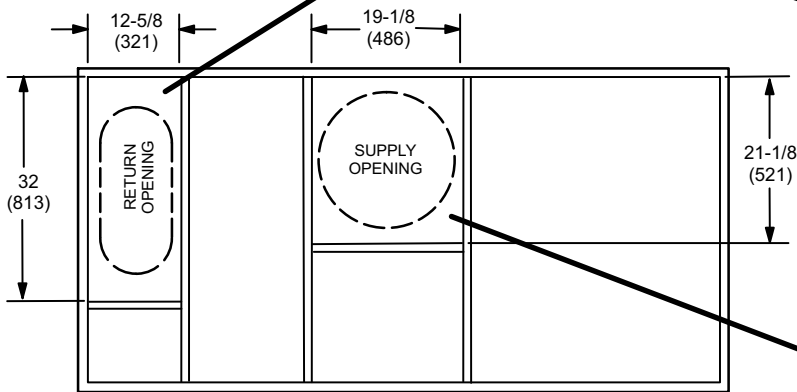


DETAIL ROOF CURB



ACCESSORY DIMENSIONS - INCHES (MM)

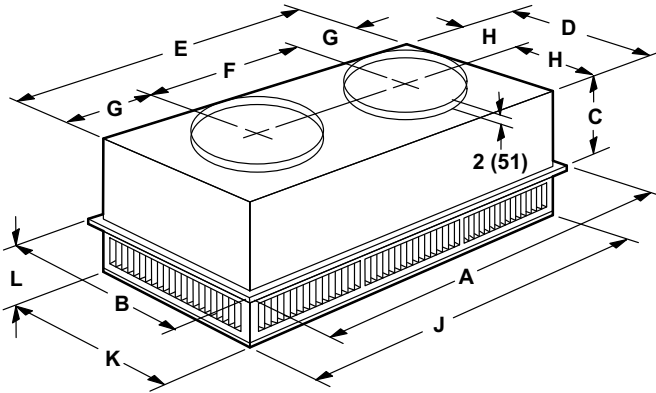
TRANSITIONS



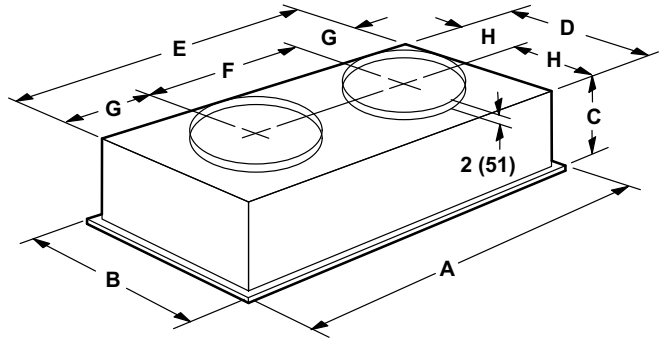
ACCESSORY DIMENSIONS - INCHES (MM)

COMBINATION CEILING SUPPLY AND RETURN DIFFUSERS

STEP-DOWN CEILING DIFFUSER



FLUSH CEILING DIFFUSER



Model Number		RTD9-65
A	in.	47-5/8
	mm	1159
B	in.	23-5/8
	mm	600
C	in.	11-3/8
	mm	289
D	in.	21-1/2
	mm	546
E	in.	45-1/2
	mm	1156
F	in.	22-1/2
	mm	572
G	in.	11-1/2
	mm	292
H	in.	10-3/4
	mm	273
J	in.	45-1/2
	mm	1156
K	in.	21-1/2
	mm	546
L	in.	7-1/8
	mm	181
Duct Size	in.	18 round
	mm	457 round

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

GUIDE SPECIFICATIONS

This specification is for [*Lennox Industries T-Class™*] rooftop units. Revise specification section number and title below to suit project requirements, specification practices and section content. Refer to CSI *MasterFormat* for other section numbers and titles.

Optional text and text that requires a decision are indicated by **bold brackets []** and proprietary information is indicated by **bold italic brackets []**; delete text that is not needed in final copy of specification. Specifier Notes typically precede specification text; delete notes in final copy of specification. Trade/brand names with appropriate symbols typically are used in Specifier Notes; symbols are not used in specification text. Metric conversion, where used, is soft metric conversion.

SECTION 237433

UNITARY AIR CONDITIONING EQUIPMENT

PART 1 GENERAL

PART 1.01 SUMMARY

- A. Section Includes: Packaged rooftop units and commercial packaged, gas/electric, electric/electric and electric/heat pumps.

Specifier Note: Revise paragraph below to suit project requirements. Add section numbers and titles per CSI *MasterFormat* and specifier's practice.

- B. Related Sections:

Specifier Note: Article below may be omitted when specifying manufacturer's proprietary products and recommended installation. Retain Reference Article when specifying products and installation by an industry reference standard. If retained, list standard(s) referenced in this section. Indicate issuing authority name, acronym, standard designation and title. Establish policy for indicating edition date of standard referenced. Conditions of the Contract or Division 1 References Section may establish the edition date of standards. This article does not require compliance with standard, but is merely a listing of references used. Article below should list only those industry standards referenced in this section. Retain only those reference standards to be used within the text of this Section. Add and delete as required for specific project.

PART 1.02 REFERENCES

- A. Agency Listings:
 - 1. Intertek ETL.
 - 2. Canadian Standards Association (CSA).
- B. Safety Standards:
 - 1. Underwriters Laboratories (UL).
 - 2. Underwriters Laboratories of Canada (ULC).
 - 3. National Electric Code (NEC).
 - 4. Canadian Electric Code (CEC).
- C. Air-Conditioning and Refrigerating Institute (ARI):
 - 1. ARI 340/360 Commercial and Industrial Unitary Air-Conditioning and Heat Pump Equipment.
 - 2. ARI 370 Sound Rating of Large Outdoor Refrigerating and Air Conditioning Equipment.
 - 3. ARI 210/240 Performance Rating of Unitary Air Conditioning and Air-Source Heat Pump Equipment.
- D. American Society for Testing and Materials (ASTM):
 - 1. ASTM B117 – Standard Practice for Operating Salt Spray.
 - 2. ASTM 1153 – Standard Method for Methyl Isobutyl Ketone.
- E. ISO 9001, Quality Management Systems.
- F. Meet Military Specification MIL-P-53084

Specifier Note: Article below should be restricted to statements describing design or performance requirements and functional (not dimensional) tolerances of a complete system. Limit descriptions to composite and operational properties required to link components of a system together and to interface with other systems.

PART 1.03 SYSTEM DESCRIPTION

- A. Performance Requirements:

Specifier Note: Article below should be restricted to T-Class (TH), heat pumps packaged roof top units only.

- 1. [2, 2.5, 3, 4, 5, 6, 7.5, 8.5, 10, 12.5, 15 and 20 ton capacity.]

Specifier Note: Article below should be restricted to T-Class (TG) gas/electric packaged roof top units or T-Class (TC) electric/electric packaged roof top units.

- 2. [2, 2.5, 3, 4, 5, 6, 7.5, 8.5, 10, 12.5, 15, 17.5, 20 and 25 ton capacity.]
- 3. Electrical Characteristics:
 - a. 60 Hz

GUIDE SPECIFICATIONS

Specifier Note: 208/230 volt 1 phase is only available on 2, 2.5, 3, 4 and 5 ton standard efficiency models. All other voltages are available on 3-25 ton T-Class RTU's.

b. [208/230 v – 1 Phase] [208/230 v – 3 Phase] [460 v – 3 Phase] [575 v – 3 Phase]

Specifier Note: Article below includes submittal of relevant data to be furnished by Contractor before, during or after construction. Coordinate this article with Architect's and Contractor's duties and responsibilities in Conditions of the Contract and Division 1 Submittal Procedures Section.

PART 1.04 SUBMITTALS

- A. General: Submit listed submittals in accordance with Conditions of the Contract and Division 1 Submittal Procedures.
- B. Product Data: Submit product data for specified products.
- C. Shop Drawings:
 - 1. Submit shop drawings in accordance with Section 01330 - Submittal Procedures.
 - 2. Indicate:
 - a. Equipment, piping and connections, together with valves, strainers, control assemblies, thermostatic controls, auxiliaries and hardware, and recommended ancillaries which are mounted, wired and piped ready for final connection to building system, its size and recommended bypass connections.
 - b. Piping, valves and fittings shipped loose showing final location in assembly.
 - c. Control equipment shipped loose, showing final location in assembly.
 - d. Dimensions, internal and external construction details, recommended method of installation with proposed structural steel support, mounting curb details, sizes and location of mounting bolt holes; include mass distribution drawings showing point loads.
 - e. Detailed composite wiring diagrams for control systems showing factory installed wiring and equipment on packaged equipment or required for controlling devices or ancillaries, accessories and controllers.
 - f. Fan performance curves.
 - g. Details of vibration isolation.
 - h. Estimate of sound levels to be expected across individual octave bands in dB.
 - i. Type of refrigerant used.
 - j. Plan view, front view end view, back view and curb detail with dimensions.
- D. Quality Assurance:
 - 1. Test Reports: Certified test reports showing compliance with specified performance characteristics and physical properties.
 - 2. Certificates: Product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.
 - 3. Manufacturer's Instructions: Manufacturer's installation instructions.

Specifier Note: Coordinate paragraph below with Part 3 Field Quality Requirements Article herein. Retain or delete as applicable.

- E. Manufacturer's Field Reports: Manufacturer's field reports specified.
- F. Closeout Submittals: Submit following:
 - 1. Warranty: Warranty documents specified.
 - 2. Operation and Maintenance Data: Operation and maintenance data for installed products in accordance with Division 1 Closeout Submittals (Maintenance Data and Operation Data) Section. Include methods for maintaining installed products and precautions against cleaning materials and methods detrimental to finishes and performance. Include names and addresses of spare part suppliers.
 - 3. Provide brief description of unit, with details of function, operation, control and component service.
 - 4. Provide equipment inspection report and equipment operation test report.
 - 5. Commissioning Report: Submit commissioning reports, report forms and schematics in accordance with Section 01810 - Commissioning.

PART 1.05 QUALITY ASSURANCE

- A. Qualifications:
 - 1. Installer experienced in performing work of this section who has specialized in installation of work similar to that required for this project.

PART 1.06 DELIVERY, STORAGE & HANDLING

- A. General: Comply with Division 1 Product Requirements.
- B. Ordering: Comply with manufacturer's ordering instructions and lead time requirements to avoid construction delays.
- C. Packing, Shipping, Handling and Delivery:
 - 1. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
 - 2. Ship, handle and unload units according to manufacturer's instructions.
- D. Storage and Protection:

GUIDE SPECIFICATIONS

1. Store materials protected from exposure to harmful weather conditions.
2. Factory shipping covers to remain in place until installation.

PART 1.07 PROJECT CONDITIONS

- A. Installation Location: **[Confirm design conditions and temperature.]**

Specifier Note: Coordinate article below with Conditions of the Contract and with Division 1 Closeout Submittals (Warranty).

PART 1.08 WARRANTY

- A. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.
- B. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty document executed by authorized company official. Manufacturer's warranty is in addition to, and not a limitation of, other rights Owner may have under Contract Documents.

Specifier Note: "Aluminized Heat Exchanger" and "Stainless steel Heat Exchanger" limited warranty is only available on T-Class (TG) Gas/Electric models. "Compressor" and "Other System Components" are covered on all T-Class units.

- C. Warranty: Commencing on Date of Installation.
1. Compressors: 5 years (limited).
 2. Other Covered System Components: 1 year (limited).
 3. **[Aluminized Heat Exchangers: 10 years (limited).] [Stainless Steel Heat Exchangers: 15 years (limited).]**

PART 2 PRODUCTS

Specifier Note: Retain article below for proprietary method specification. Add product attributes, performance characteristics, material standards and descriptions as applicable. Use of such phrases as "or equal" or "or approved equal" or similar phrases may cause ambiguity in specifications. Such phrases require verification (procedural, legal and regulatory) and assignment of responsibility for determining "or equal" products.

PART 2.01 ROOFTOP UNITS

- A. Manufacturer: Lennox Industries.
1. Contact: 2100 Lake Park Blvd., Richardson, TX 75080; Telephone: (800) 453-6669; website: www.lennox.com.
- B. Proprietary Products/Systems: Lennox T-Class Packaged Rooftop Units, including the following equipment:
1. Cabinet:
 - a. Heavy gauge steel panels.
 - b. Pre-painted steel panels.
 - c. Heavy Gauge galvanized steel base rail.
 - d. Rigging holes on all four corners.
 - e. Forklift slots (on three sides, not directly below condenser coil) on base rail.
 - f. Raised or flanged edges around duct and power entry openings.

Specifier Note: "Down Flow" is the standard configuration that all T-Class units are shipped as.

Specifier Note: "Horizontal Flow" is an option for all T-Class models. T-Class TH, TG and TC models of tonnages 2, 2.5, 3, 4, 5 and 6 can be converted, in the field, to horizontal flow without the need of a conversion kit. If applied horizontally with an economizer, a conversion kit is required.

Specifier Note: "Horizontal Flow" is an option for all T-Class models. T-Class TH, TG and TC models of tonnages 7.5, 8.5, 10 and 12.5 can be converted, in the field, with a separate to Horizontal Conversion Kit.

Specifier Note: "Horizontal Flow" is an option for all T-Class models. T-Class TH, TG and TC models of tonnages 15, 17.5, 20 and 25 require a roof curb that allows for horizontal air flow. A Horizontal Air Panel Kit is also required if converting a down-flow configured unit to horizontal air flow.

- g. **[Down-Flow] [Horizontal] Air Flow configuration**

Specifier Note: add the "and gas lines" only if using a T-Class (TG) gas/electric model.

- h. Electrical lines **[and gas lines]** can be brought through the base of the unit or through horizontal knockouts.
- i. Insulation:
 - 1) All panels adjacent to conditioned air are fully insulated with non-hygroscopic fiberglass insulation.
 - 2) Unit base is fully insulated.
 - 3) Unit base insulation also serves as a roof curb seal.
- j. Access Panels:
 - 1) Provided for economizer/filter section.
 - 2) Provided for Heating/blower section.
- k. Condensate Drain Pan.

Specifier Note: "Factory Installed Options" are options that can be selected for the T-Class roof top units. The "Factory Installed Options" are installed at the Lennox manufacturing facility.

GUIDE SPECIFICATIONS

- I. [Factory Installed Options:]
 - 1) [Corrosion Protection, meets standards:
 - a) Military Specification MIL-P-53084.
 - b) ASTM B117
 - c) ASTM 1153]
 - 2) [Hinged Access panels]
 - 3) [GFI Service Outlets (field wired)]

Specifier Note: "Field Installed Accessories" are options that can be selected for the T-Class roof top units. The "Field Installed Accessories" are shipped separately and installed in the field.

- m. [Field Installed Accessories:]

Specifier Note: Of the selections below, [Coil Guards] [Hail Guards], only one can be selected.

- 1) [Coil Guards] [Hail Guards].
- 2) [Horizontal Return Air Panel Kit].

Specifier Note: "Circuit Breakers(up to 175 amps)" is not available on 2-6 ton models.

- 3) [Circuit Breakers (up to 175 amps)]
- 4) [Disconnect Switch (up to 250 amps)]
- 5) [Condensate drain trap]

2. Cooling System:
 - a. Capable of operating from 30 - 125 degrees F (-1 - 52 degrees C) without installation of additional controls.
 - b. Compressors:

Specifier Note: The TG/TC036B unit uses a reciprocating compressor instead of a scroll type.

- 1) Scroll Type.
- 2) Resiliently mounted on rubber mounts for vibration isolation.
- 3) Overload Protected
- 4) Internal excessive current and temperature protection.
- 5) Isolated from condenser fan air stream.
- 6) Refrigerant cooled.
- c. TXV
- d. Freezestat
- e. High capacity filter driers

Specifier Note: Include following 2 articles for T-Class (TH) packaged heat pumps models.

- f. Reversing Valves: Four-way interchange reversing valve.
- g. Defrost Control.

Specifier Note: 2-6 ton models are only available in Standard efficiency, 7.5-20 ton models are available in Standard or High efficiencies.

Specifier Note: The 12.5 ton model is available in standard efficiency only.

- h. Efficiency: [Standard] [and]/[or] [High].
- i. [Low ambient kit: Field installed]

Specifier Note: High pressure switch is available to be field installed on all units except the T-Class model TH on tonnages 15-20.

- j. [High pressure switch: Field installed]

Specifier Note: Crankcase heater is available to be field installed on all units except the T-Class model TH on tonnages 2-6 and 15-20.

- k. [Crankcase heater: field installed]

3. Coil Construction:
 - a. Condensing/evaporator coil general construction:
 - 1) Aluminum Rippled and Lanced fins.
 - 2) Copper tube construction.
 - 3) Aluminum fins mechanically bonded to copper tubes.
 - 4) All coils are high pressure leak tested at manufacturing facility.
 - b. Evaporator Coils:
 - 1) With balanced port thermal expansion valves, freeze protection on each compressor circuit, pressure and leak tested to 500 psi, and maximum 14 fins per inch.

GUIDE SPECIFICATIONS

- 2) Each compressor circuit on coil divided across face of coil and active through full depth of coil.
- 3) **[With flexible immersed coating electrodeposited by dry film process].**
- c. Condenser Coils:
 - 1) **[With flexible immersed coating electrodeposited by dry film process] on corrosion hardened units only.**
4. Wiring:
 - a. Color coded and continuously marked to identify point-to-point component connections.
 - b. Not in contact with hot-gas refrigerant lines or sharp metal edges.
5. Cooling Controls:
 - a. Provide minimum compressor on time of 4 minutes.

Specifier Note: “4 Stages of cooling from thermostat” is only available for models that have 4 independent refrigerant circuits. 2-6 ton models have 1 circuit, 7.5-12.5 ton models have 2 circuits, and 15-25 ton models have several models with 4 circuits.

- b. Support up to 4 stages of cooling from thermostat or external DDC controller. (4 independent refrigerant circuits required.)

Specifier Note: T-Class units with Gas Heating Systems are TG models.

6. Gas Heating System:
 - a. Induced draft
 - b. Natural gas fired system with direct spark ignition
 - c. Electronic flame sensors
 - d. Flame rollout switches
 - e. High heat limit switches
 - f. Induced draft failure switch and capable of operating to altitude of 2000 feet (610 m) with no derate to manifold pressure.
 - g. Service access for controls, burners and heat exchanger.
 - h. Heat Exchanger:
 - 1) Tubular Design
 - 2) **[Aluminized steel] [Stainless steel].**
 - i. Gas piping system tight and free of leaks when pressurized to maximum supply pressure.
 - j. Gas Valve: Two-stage, redundant type gas heat valve with manual shutoff.

Specifier Note: One Stage Gas valve only available on 2-6 ton models.

- k. Gas Valve: Single-stage.
- l. Gas Burners: Aluminized steel inshot-type gas burners.
- m. Direct spark pilot ignition.
- n. Fan and Limit Controls.
- o. Safety Switches.
- p. Gas piping system tight and free of leaks when.

Specifier Note: “Cold Weather Kit” is only available for field mounting on the T-Class (TG) Gas/Electric models of tonnages 15 – 25 or factory mounting on the T-Class (TG) Gas/Electric models of tonnages 7.5 – 12.

- q. **[Cold Weather Kit:] [field] [factory]**

Specifier Note: “Field Installed Accessories” are options that can be selected for the T-Class TG Gas/Electric models. The “Field Installed Accessories” are shipped separately and installed in the field.

- r. **[Field Installed Accessories:]**
 - 1) **[Combustion Air Intake Extensions].**
 - 2) **[Vertical Vent Extension Kit].**
 - 3) **[LPG/Propane Kit].**

Specifier Note: “Low Temperature Vestibule Heater” is only available for the T-Class (TG) Gas/Electric models of tonnages 2, 2.5, 3, 4, 5 and 6.

- 4) **[Low Temperature Vestibule Heater].**

Specifier Note: The “Electric Heating System” is an option for T-Class (TH), heat pump, and T-Class (TC), electric/electric models only. The “Electric Heating System” can be either factory or field installed.

7. Electric Heating System:
 - a. Electrical resistance heater.
 - b. **[Factory] [Field] installed.**
 - c. **[Factory] [Field] installed Fuse Block.**

GUIDE SPECIFICATIONS

- d. Reset thermal limit protection.
 - e. Single point power supply.
 - f. Heater Element:
 - 1) Nickel chromium wire.
 - 2) Individually fused.
 - g. Electric heater slides out of unit for service.
8. Heating Controls:

Specifier Note: 2 stages of heating control are only available on T-Class (TG) gas/electric models of tonnages 4-6, on two stage units.

- a. Support 2 stages of heating control from thermostat or DDC.
 - b. With delay time of 30 seconds between low and high heat stages.
9. Supply Air Fan Motor and Drives:
- a. Permanently lubricated ball bearings (for belt drive motors).
 - b. Thermal overload protected motors with automatic reset.

Specifier Note: Slide out accessibility is only available on T-Class models of tonnages 7.5-25.

- c. Adjustable sheaves on belt drive motors for blower speed adjustment.
 - d. Optional low and high static motor/drive combinations and optional drive kits.
10. Supply Air Fan:
- a. Double inlet type, G90 (Z275) galvanized steel with forward curved blades.
 - b. Statically and dynamically balanced.
 - c. Slide-out accessibility unit for servicing and belt tension adjustment.
 - d. Continuous or automatic control for occupied periods.
11. Supply Air Filters:
- a. Disposable 2 inch.

Specifier Note: Permanent metal frame filters with 2 inch polyester replaceable media are only available on T-Class models of tonnages 15-25 tons.

- b. **[Permanent metal frame filters with 2 inch polyester replaceable media].**

12. Condenser Fan Motor:

Specifier Note: T-Class 2-4 ton models have sleeve bearings.

- a. Direct drive with permanently lubricated ball bearings.
 - b. Watertight with thermal overload protection and automatic reset.
 - c. Motor mount isolated from fan safety guard.
13. Condenser Fans:
- a. Corrosion resistant propeller type with vertical discharge and finger safety guard.
14. Microprocessor Based Unit Controller System:
- a. Solid state, microprocessor based control board to control unit cooling operations.
 - b. Green blinking LED to indicate normal operation.
 - c. Pushbutton reset.
 - d. Four-position DIP switch to select unit operating mode/unit type.
 - e. Test mode for quick operation checks.
 - f. Up to 2-stage heat/4-stage cool thermostat or DDC capable thermostat operation.
 - g. Digital Inputs:
 - 1) Low cool demand
 - 2) High cool demand
 - 3) Low heat demand
 - 4) Supply fan demand
 - 5) Primary heat limit (2)
 - 6) Flame rollout switch (2)
 - 7) Induced draft motor switch (2)
 - 8) Gas valve sense switch (2)

Specifier Note: T-Class models of tonnages 15-25 have four Freeze protection switches. 7.5 - 12 ton models have two. 2-6 ton models have one.

- 9) Freeze protection switch (2), (4).
- h. Digital Outputs:
- 1) Supply air fan motor

GUIDE SPECIFICATIONS

- 2) compressor 1
- 3) compressor 2
- 4) condenser fans
- 5) inducer fan motor 1

Specifier Note: T-Class 7.5 - 25 ton models only.

- 6) heat 1
- 7) critical diagnostic fault code occurrence.

i. [Control Options:]

- 1) [Single Enthalpy Control] : [Field] [Factory]
- 2) [Differential Enthalpy Control : Field]

Specifier Note: The factory mounted CO2 sensor is only available T-Class models of tonnages 15 - 25. All other models can be field mounted only.

- 3) [CO2 Sensor:] [Field] [Factory]

Specifier Note: Economizer Control: Field is only available for T-Class models of tonnages 7.5 - 25.

- 4) [Economizer Control: Field]

15. [Accessories:]

- a. [Economizer]: [Field] [Factory]

Specifier Note: Motorized outdoor air damper is only available in a field mounted version for the T-Class models of tonnages 2, 2.5, 3, 4, 5 and 6. All other models can be factory or field.

- b. [Motorized outdoor air damper]: [Field] [Factory]

Specifier Note: Manual outdoor air damper is only available in a field mounted version for the T-Class models of tonnages 2, 2.5, 3, 4, 5 and 6. All other models can be factory or field.

- c. [Manual outdoor air damper]: [Field] [Factory]

Specifier Note: Barometric relief damper and outdoor air hood is included with factory or field installed economizer on 2-6 ton models. All other models can be factory or field installed separately.

- d. [Barometric relief damper]: [Field] [Factory]

Specifier Note: The factory mounted Power Exhaust Fan is only available on the versions of T-Class models of tonnages 15-25. All other models can be field mounted.

- e. [Power exhaust fan]: [Field] [Factory]
- f. [Dirty filter switch: Field]

Specifier Note: The field mounted Blower Proving Switch is only available on T-Class models of tonnages 7.5-25.

- g. [Blower proving switch]: [Field] [Factory]
- h. [Smoke detectors: Field]
- i. [Roof curb: Field]
- j. [Outdoor air hood: Field]
- k. [Barometric relief damper hood: Field]

Specifier Note: Edit article below to suit project requirements. If substitutions are permitted, edit text below. Add text to refer to Division 1 Project Requirements (Product Substitutions Procedures) Section.

PART 2.02 PRODUCT SUBSTITUTIONS

- A. Substitutions: No substitutions permitted.

PART 3 EXECUTION

PART 3.01 MANUFACTURER'S INSTRUCTIONS

Specifier Note: Revise article below to suit project requirements and specifier's practice.

- A. Compliance: Comply with manufacturer's written data, including product technical bulletins, product catalog installation instructions, product carton installation instructions and manufacturer's SPEC-DATA® sheets.

PART 3.02 EXAMINATION

- A. Site Verification of Conditions: Verify substrate conditions, which have been previously installed under other sections, are acceptable for product installation in accordance with manufacturer's instructions

PART 3.03 INSTALLATION

- A. Install [Packaged rooftop units] [And] [Commercial packaged, gas/electric, electric/electric and electric/heat pumps] in accordance with manufacturer's instructions [On roof curbs provided by manufacturer] [As indicated].

END OF SECTION

REVISIONS

Sections	Description of Change
Document	Removed all Basic Efficiency model information.
Optional Accessories	Updated Information - High Pressure Switch, Low Ambient Kit and Smoke Detector.



Visit us at www.lennox.com
For the latest technical information, www.lennoxcommercial.com
Contact us at 1-800-4-LENNOX

NOTE - Due to Lennox' 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.

©2008 Lennox Industries Inc.