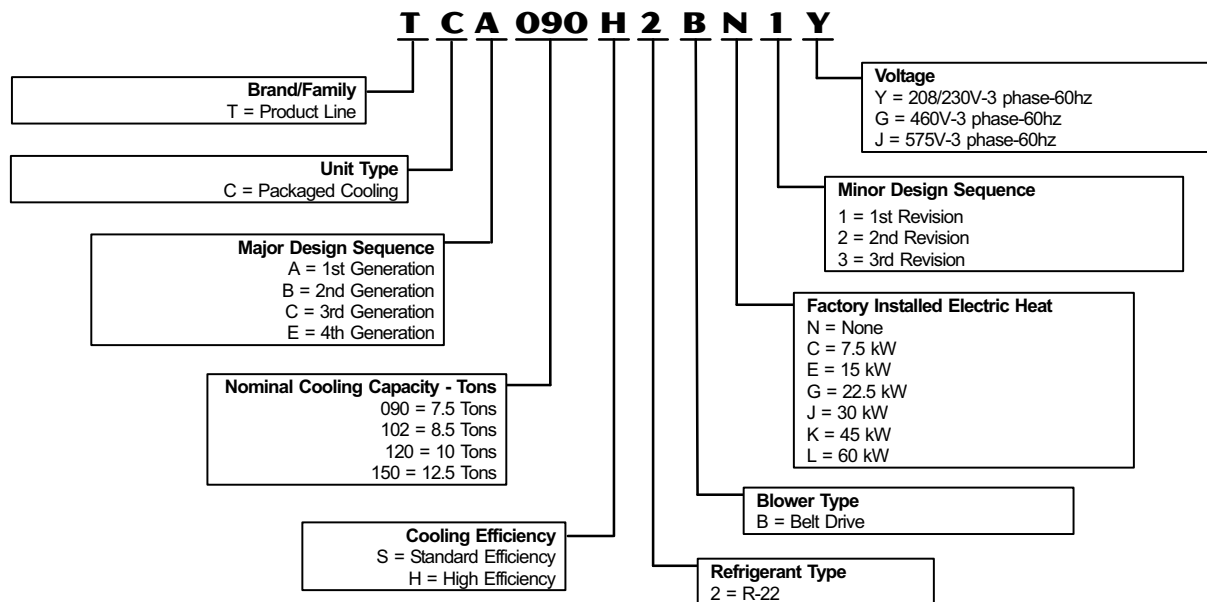


ASHRAE 90.1
COMPLIANT



7.5 to 12 Tons
Net Cooling Capacity - 90,000 - 140,000 Btuh
Optional Electric Heat - 7.5 to 60 kW

MODEL NUMBER IDENTIFICATION



FEATURES AND BENEFITS

CONTENTS

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APPROVALS

ETL and CSA listed. Components bonded for grounding to meet safety standards for servicing required by UL, CSA and National and Canadian Electrical Codes. Gas efficiency ratings verified by CSA. Cooling performance certified in accordance with the ULE certification program, which is based on ARI Standard 340/360-2000.

ENERGY STAR® certified units are designed to use less energy, help save money on utility bills, and help protect the environment.

WARRANTY

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

COOLING SYSTEM

Designed to maximize sensible and latent cooling performance at design conditions. Two efficiency levels provide flexibility. System can operate from 30°F to 125°F without any additional controls.

1 Compressors

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

2 Thermal Expansion Valves

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

3 Filter/Driers

High capacity filter/driers protect the system from dirt and moisture.

Freezestats

Protects the evaporator coil from damaging ice build-up due to conditions such as low/no air flow, or low/no refrigerant charge.

4 Coil Construction

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

Evaporator Coil

Face split with separate circuits. Each circuit has its separate expansion valve, compressor and refrigerant charge. Enhanced aluminum fins and copper tube coils with cross row circuiting optimizes both sensible and latent cooling capacity.

Condenser Coil

Formed type on all models. Ripple-edged, enhanced aluminum fin and copper tube construction maximizes heat transfer capability.

Condensate Drain Pan

Painted, galvanized pan with positive slope.

Drain connection extends outside unit.

Outdoor Coil Fan Motors

Thermal overload protected, totally enclosed, permanently lubricated ball bearings, shaft up, independent motor mount.

Outdoor Coil Fan

PVC coated fan guard furnished.

REQUIRED SELECTIONS

Cooling Capacity

Specify the nominal cooling capacity of the unit.

Cooling Efficiency

Specify either standard or high efficiency.

OPTIONS/ACCESSORIES

Field Installed

Condensate Drain Trap

Available in copper or PVC.

Compressor Crankcase Heaters

Protects against refrigerant migration that can occur during low ambient operation.

High Pressure Switches

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

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.

5 BLOWER

Supply air fan provides a wide range of air flow capability. Special order high and low static motor and drive options are available offering an even wider range of capability.

Supply Air Motor

Overload protected with permanently lubricated ball bearings ensures durable operation. Belt drive motors that meet EPACT efficiency requirements maximize air performance and save energy. Special order high and low static motors provide a higher level of air performance for demanding applications.

Supply Air Blower

A double inlet wheel with forward curve blades provide maximum air performance and quiet operation. Dynamically balanced with permanently lubricated ball bearings assure long, reliable operation. Adjustable pulleys allow air to be precisely tuned to the needs of the application.

REQUIRED SELECTIONS

Supply Air Blower

Specify Blower motor and drive kit (See Blower Data Table for specifications).

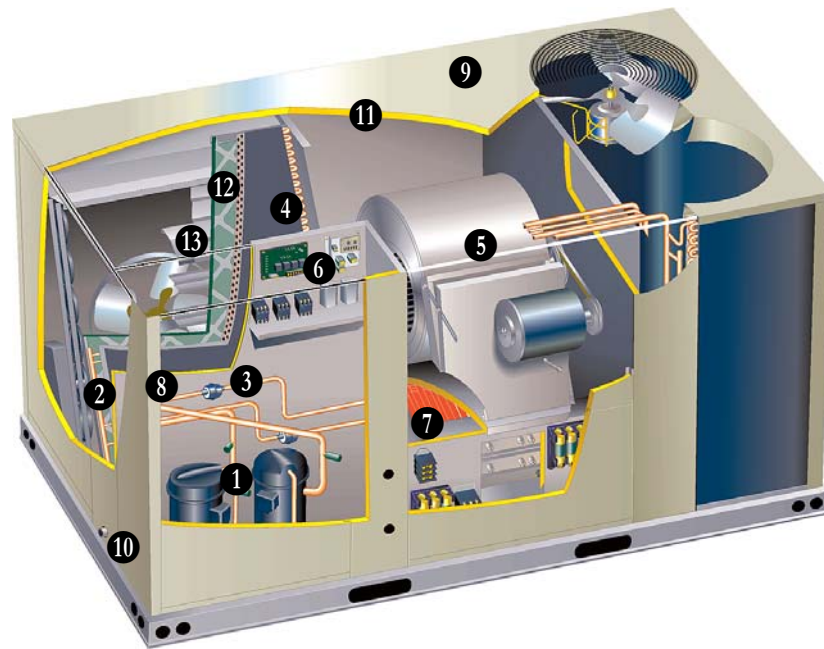
OPTIONS/ACCESSORIES

Factory Installed

High and Low Static Supply Fan

Extends air flow external static range.

FEATURES AND BENEFITS



CONTROLS

6 Unit Controller

Microprocessor-based control board provides flexible control of cooling functions. All control voltage is provided via a 24V (secondary) transformer with built-in circuit breaker protection. Built-in functions include:

Blower On/Off Delay - Time delay between blower on and off cycles provides a more even supply air temperature during heating.

Built-in Control Parameters - Saves installation time as no programming is required.

Minimum Compressor Run Time - Ensures proper oil return to the compressor.

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

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

Thermostat Bounce Delay - Protects compressor from short cycling when a mechanical thermostat is used.

OPTIONS/ACCESSORIES

Field Installed

Blower Proving Switch

Uses a static pressure sensor to monitor blower operation and shuts down unit if blower fails.

Dirty Filter Switch

Senses static pressure increase indicating dirty filter condition.

Smoke Detector

Photoelectric type, installed in supply air section or return air section or both sections

ELECTRICAL

REQUIRED SELECTIONS

Voltage Choice

Specify 208/230V, 460V or 575V 3-phase-60hz when ordering base unit.

OPTIONS/ACCESSORIES

Factory or Field Installed

7 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 17-23.

GFI Service Outlets (2)

115v ground fault circuit interrupter (GFCI) type, field wired.

Field Installed

8 Circuit Breakers up to 175 Amp

HACR circuit breaker without power distribution lugs. Accessible from outside of unit, spring-loaded weatherproof cover furnished. Main power to the unit is field connected to the circuit breaker which allows all power to be shutoff for service. Circuit breaker is sized to the unit maximum overcurrent protection (MOCP) size.

Disconnect Switch up to 250 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.

CABINET

9 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 available in down-flow (vertical) or horizontal air flow configuration with optional field installed Horizontal Conversion Kit.

Duct Flanges

Horizontal supply duct flange is standard on all units.

10 Power Entry

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

Exterior Panels

Constructed of heavy-gauge, galvanized steel with a two-layer enamel paint finish. Large removable panels provide service access.

FEATURES AND BENEFITS

CABINET - CONTINUED

11 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, blower section, heating section and the compressor/controls section.

REQUIRED SELECTIONS

Air Flow Configuration

Specify horizontal or down-flow (vertical).

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.

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.

Horizontal Return Air Panel Kit

Required for horizontal applications with Horizontal Roof Curb, contains panel with return air opening for field replacement of existing unit panel and panel to cover bottom return air opening in unit, see dimension drawings.

INDOOR AIR QUALITY

12 Air Filters

Disposable 2 inch filters furnished as standard.

OPTIONS/ACCESSORIES

Field Installed

Indoor Air Quality (CO₂) Sensor

Monitors CO₂ levels.

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.

Access Panels

Large access panels are provided for quick and easy access to maintenance areas.

Blower Access

Blower assembly slides out of the unit for easy access.

TXV Access

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

Thermal Expansion Valves

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.

Standard Components

A large number of common maintenance parts are standard throughout the entire range of sizes (7.5 - 12.5 tons), reducing the need to carry a lot of different parts to the job or in inventory.

Compressor Access

Compressors are located near the perimeter of the unit for easier access.

Compressor Compartment

Compressors are isolated from the condenser air flow allowing system operation checks to be done without changing the air flow across the outdoor coils.

OPTIONS / ACCESSORIES

ECONOMIZER/OUTDOOR AIR/EXHAUST ACCESSORIES

Factory or Field Installed

13 Economizer

Parallel, gear-driven action return air and outdoor air dampers, plug-in connections to unit, nylon bearings, neoprene seals, 24 volt, spring return motor, adjustable minimum damper position, damper assembly slides in unit, outdoor air hood must be ordered separately, choice of economizer controls. Economizer modulates dampers to maintain a 55°F discharge air temperature.

Economizer Enthalpy Control

Senses outdoor air enthalpy and enables economizer if the enthalpy is less than the setpoint of the control.

Down-Flow Barometric Relief Dampers

Allows relief of excess return air static when economizer is near full open. Aluminum blade dampers prevent blow back and outdoor air infiltration during off cycle. Bird screen furnished.

Outdoor Air Damper Section

25% Manual Outdoor Air Dampers - Parallel blade dampers are manually adjustable to a fixed position.

25% Automatic Outdoor Air Damper - Parallel blade, gear-driven dampers are automatically adjusted with a two-position damper motor.

Economizer and Outdoor Air Damper

Application Note - Minimum mixed air temperature in heating mode 30°F
Maximum mixed air temperature in cooling mode: 90°F

Power Exhaust Fans

Installs internal to unit for down-flow applications 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. Galvanized steel cabinet and hood painted to match unit. Total air volume is 4200 cfm at 0 in. wg. 1/3 hp motor. 300 Watts total input. See Power Exhaust Blower Tables.

Field Installed

Economizer Control

Sensible Temperature Control - Senses outdoor air temperature and enables the economizer if the temperature is less than the set point of the control. Order two kits for differential control.

Single Outdoor Enthalpy Control - Senses outdoor air enthalpy and enables economizer if the enthalpy is less than the setpoint of the control.

Differential Enthalpy (Dual) Control - Two solid-state enthalpy sensors allow the control to select between outdoor air or return air, whichever has lower enthalpy.

Outdoor Air Hood

Required with Economizer, Outdoor Air Damper Sections, cleanable aluminum mesh fresh air filters furnished.

Down-Flow Barometric Relief Damper Hood

Protects exhaust air from recirculating into outdoor air stream.

Horizontal Barometric Relief Dampers

Allows relief of excess air when economizer is near full open. Aluminum blade dampers prevent blow back and outdoor air infiltration during off cycle. Field installed in return air duct. Bird screen furnished.

CEILING DIFFUSERS

OPTIONS/ACCESSORIES

Field Installed

Ceiling Diffusers

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 CURBS

OPTIONS/ACCESSORIES

Field Installed

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

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

Standard roof curb corners fasten together with furnished hardware.

OPTIONS / ACCESSORIES

Item	Catalog No.	090	102	120	150	
COOLING SYSTEM						
Compressor Crankcase Heater	208/230V - TACHK10/15-Y	76M34	x	x	x	x
	460V - TACHK10/15-G	76M35	x	x	x	x
	575V - TACHK10/15-J	76M36	x	x	x	x
Condensate Drain Trap	PVC - LTACDKP09/36	37K90	x	x	x	x
	Copper - LTACDKC09/36	48K14	x	x	x	x
Corrosion Protection			○	○	○	○
Efficiency	Standard		○	○	○	○
	High		○	○	○	
High Pressure Switch	T1SNSR11B-2	42W97	x	x	x	x
Low Ambient Kit	T1SNSR12B-2	42W98	x	x	x	x
Refrigerant Type		R-22	○	○	○	○
BLOWER - SUPPLY AIR						
Constant Air Volume	2 hp Standard or High Efficiency		○	○	○	
	3 hp Standard Efficiency		○	○	○	○
	3 hp High Efficiency		○	○	○	○
	5 hp Standard or High Efficiency				○	○
CABINET						
Coil Guards	TACGKGC10/15	69M44	x	x	x	x
Hail Guards	TAHGKGC10/15	69M45	x	x	x	x
Hinged Access Panels			○	○	○	○
Horizontal Discharge Conversion Kit	LTHSDKGC10/15	56K53	x	x	x	x
CONTROLS						
Blower Proving Switch	C0SWCH01AE1-	30K49	x	x	x	x
Dirty Filter Switch	C0SWCH00AE1-	30K48	x	x	x	x
Smoke Detector - Supply	L1SNSR41BD1	53W26	x	x	x	x
Smoke Detector - Return	L1SNSR42BD1	53W25	x	x	x	x
ECONOMIZER						
Economizer						
Economizer - Order LAOAH Hood Separately	TAREMD10/15	94M02	⊗	⊗	⊗	⊗
Economizer Controls						
Differential Enthalpy (dual)	C1SNSR07AE	86M33	x	x	x	x
Sensible (order two kits for Differential)	TASEK10/15	76M37	⊗	⊗	⊗	⊗
Single Outdoor Enthalpy	C1SNSR06AE	86M32	x	x	x	x
Barometric Relief						
Down-Flow Barometric Relief Dampers - Order Hood Separately	LAGED10/15	53K03	⊗	⊗	⊗	⊗
Hood for Down-Flow LAGED	LAGEH09/15	88K79	x	x	x	x
Horizontal Barometric Relief Dampers Hood Furnished	LAGEDH03/15	53K04	x	x	x	x

NOTE - The catalog and part 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.	090	102	120	150
ELECTRICAL					
Voltage 60 hz	208/230V - 3 phase	○	○	○	○
	460V - 3 phase	○	○	○	○
	575V - 3 phase	○	○	○	○
HACR Circuit Breakers	25 to 80 Amp size available	x	x	x	x
Disconnect Switch	See Electrical/Electric Heat Tables for selection	x	x	x	x
GFI Service Outlets	LTAGFIK10/15 74M70	⊗	⊗	⊗	⊗
ELECTRIC HEAT					
7.5 kW	EHA102-7.5 - 208/230V-3ph 99J01	⊗	⊗		
	460V-3ph 99J02	⊗	⊗		
	575V-3ph 99J03	⊗	⊗		
15 kW	EHA150-15 - 208/230V-3ph 99J04	⊗	⊗	⊗	⊗
	460V-3ph 99J05	⊗	⊗	⊗	⊗
	575V-3ph 99J06	⊗	⊗	⊗	⊗
22.5 kW	EHA360-22.5 - 208/230V-3ph 99J28	⊗	⊗	⊗	⊗
	460V-3ph 99J29	⊗	⊗	⊗	⊗
	575V-3ph 99J30	⊗	⊗	⊗	⊗
30 kW	EHA150-30 - 208/230V-3ph 99J07	⊗	⊗	⊗	⊗
	460V-3ph 99J08	⊗	⊗	⊗	⊗
	575V-3ph 99J09	⊗	⊗	⊗	⊗
45 kW	EHA150-45 - 208/230V-3ph 99J10	⊗	⊗	⊗	⊗
	460V-3ph 99J11	⊗	⊗	⊗	⊗
	575V-3ph 99J12	⊗	⊗	⊗	⊗
60 kW	EHA150-60 - 208/230V-3ph 99J13			⊗	⊗
	460V-3ph 99J14			⊗	⊗
	575V-3ph 99J15			⊗	⊗
ELECTRIC HEAT ACCESSORIES/OPTIONS - See Electrical/Electric Heat Tables for selection					
LTB2 Terminal Block	LTB2-175 30K75	⊗	⊗	⊗	⊗
	LTB2-335 30K76	⊗	⊗	⊗	⊗
¹ Electric Heat Control Module	TAEK10/15 73M79	⊗	⊗	⊗	⊗
Unit Fuse Block - See Electrical/Electric Heat Tables for selection					
INDOOR AIR QUALITY					
Indoor Air Quality (CO₂) Sensors					
CO ₂ Sensor Duct Mounting Kit	C0MISC19AE1- 85L43	x	x	x	x
Sensor - white case CO ₂ display	C0SNSR50AS1L 77N39	x	x	x	x
Sensor - white case no display	C0SNSR52AS1L 87N53	x	x	x	x
Sensor - black case CO ₂ display	C0SNSR51AS1L 87N52	x	x	x	x
Sensor - black case, no display	C0SNSR53AS1L 87N54	x	x	x	x
Aspiration Box for duct mounting	C0MISC16AE1- 90N43	x	x	x	x
Handheld CO ₂ Monitor	LTIAQSHM03/36 70N93	x	x	x	x

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

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

○ - Configure to Order (Factory Installed)

x - Field Installed.

¹ Required for all heat sizes.

OPTIONS / ACCESSORIES

Item	Catalog No.	090	102	120	150	
OUTDOOR AIR						
Outdoor Air Dampers						
Damper Section - Order Hood Separately	Motorized - TAOADM10/15	73M74	⊗	⊗	⊗	⊗
	Manual - LAOAD10/15	66K69	⊗	⊗	⊗	⊗
Outdoor Air Hoods for Economizers and Outdoor Air Dampers						
Outdoor Air Hood (2 each) 16 x 25 x 1 in.	LAOAH10/15	53K05	⊗	⊗	⊗	⊗
POWER EXHAUST FANS						
Standard Static	208/230V - LAPEF10/15	73M32	⊗	⊗	⊗	⊗
	460V - LAPEF10/15	73M33	⊗	⊗	⊗	⊗
	575V - LAPEF10/15	73M35	⊗	⊗	⊗	⊗
CEILING DIFFUSERS						
Step-Down Order one	RTD11-95	29G04	x			
	RTD11-135	29G05		x	x	
	RTD11-185	29G06				x
	(Canada Only) RTD11-150/180S	13K63				x
Flush Order one	FD11-95	29G08	x			
	FD11-135	29G09		x	x	
	FD11-185	29G10				x
	(Canada Only) FD11-150/180S	13K58				x
Transitions (Supply and Return) Order one	LASRT10/12	49K55	x	x	x	
	LASRT15	49K56				x
ROOF CURBS - CLIPLOCK 1000						
Down-Flow						
8 in. height	C1CURB40B	26W31	x	x	x	x
14 in. height	LARMF10/15S-14	65K34	x	x	x	x
18 in. height	LARMF10/15S-18	65K35	x	x	x	x
24 in. height	LARMF10/15S-24	65K36	x	x	x	x
ROOF CURBS - STANDARD						
Down-Flow						
14 in. height	LARMF10/15-14	53K50	x	x	x	x
24 in. height	LARMF10/15-24	49K54	x	x	x	x

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

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

X - Field Installed.

SPECIFICATIONS - STANDARD EFFICIENCY COOLING

General Data		Nominal Tonnage	7.5 Ton	8.5 Ton	10 Ton	12.5 Ton
		Model No.	TCA090S2B	TCA102S2B	TCA120S2B	TCA150S2B
		Efficiency Type	Standard	Standard	Standard	Standard
Cooling Performance	Gross Cooling Capacity - Btuh		93,000	104,000	126,000	145,000
	¹ Net Cooling Capacity - Btuh		90,000	101,000	120,000	140,000
	ARI Rated Airflow - cfm		3000	3400	3800	4250
	Total Unit Power		8.7	9.7	11.4	14.4
	¹ EER (Btuh/Watt)		10.4	10.4	10.4	9.7
	² Integrated Part Load Value (Btuh/Watt)		10.8	10.8	10.8	9.4
Refrigerant Charge Furnished (R-22)		Circuit 1	7 lbs. 0 oz.	7 lbs. 8 oz.	10 lbs. 0 oz.	13 lbs. 0 oz.
		Circuit 2	6 lbs. 8 oz.	7 lbs. 0 oz.	10 lbs. 0 oz.	12 lbs. 0 oz.
³ Sound Rating Number (dB)			88	88	88	88
Compressor - Number & Type			(2) Scroll	(2) Scroll	(2) Scroll	(2) Scroll
Condenser Coil	Net face area - sq. ft.		29.3 total	29.3 total	29.3 total	29.3 total
	Tube diameter - in.		3/8	3/8	3/8	3/8
	Number of rows		1	1	2	3
	Fins per inch		20	20	20	20
Condenser Fans	Motor horsepower		(2) 1/3	(2) 1/3	(2) 1/3	(2) 1/2
	Motor rpm		1075	1075	1075	1075
	Total Motor watts		700	700	700	1150
	Diameter - in. - no. of blades		(2) 24 - 3	(2) 24 - 3	(2) 24 - 3	(2) 24 - 3
	Total air volume - cfm		8000	8000	8000	9000
Evaporator Coil	Net face area - sq. ft.		10.5 total	10.5 total	10.5 total	10.5 total
	Tube diameter - in.		3/8	3/8	3/8	3/8
	Number of rows		3	3	4	4
	Fins per inch		14	14	14	14
	Drain Connection - no. & size		(1) 1 in. NPT cplg	(1) 1 in. NPT cplg	(1) 1 in. NPT cplg	(1) 1 in. NPT cplg
	Expansion device type		Balanced Port Thermostatic Expansion Valve, removeable power head			
Standard Indoor Blower and Drive	⁴ Belt Drive - Nominal motor output		2 hp	2 hp	3 hp	5 hp
	Maximum usable output (US Only)		2.3 hp	2.3 hp	3.45 hp	5.75 hp
	Drive kit		kit #1 680 - 925 rpm	kit #1 680 - 925 rpm	kit #3 895 - 1120 rpm	kit #6 1100 - 1395 rpm
	Wheel nominal diameter x width - in.		(1) 15 x 15	(1) 15 x 15	(1) 15 x 15	(1) 15 x 15
Filters	Type of filter		Disposable			
	Number and size - in.		(4) 18 x 24 x 2	(4) 18 x 24 x 2	(4) 18 x 24 x 2	(4) 18 x 24 x 2
Electrical characteristics			208/230V, 460V or 575V - 60 hertz - 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 ULE certification program, which is based on ARI Standard 340/360, 95°F outdoor air temperature and 80°F db/67°F wb entering evaporator air; minimum external duct static pressure.

² Integrated Part Load Value rated at 80°F outdoor air temperature, 80°F db/67°F wb indoor air temperature.

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

⁴ 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.

SPECIFICATIONS - HIGH EFFICIENCY COOLING

General Data	Model No. Nominal Tonnage	TCA090H2B 7.5 Ton	TCA102H2B 8.5 Ton	TCA120H2B 10 Ton
Cooling Performance	Gross Cooling Capacity - Btuh	93,000	106,000	126,000
	¹ Net Cooling Capacity - Btuh	90,000	102,000	120,000
	ARI Rated Airflow - cfm	3000	3400	3800
	Total Unit Power	8.0	9.2	10.9
	¹ EER (Btuh/Watt)	11.0	11.0	11.0
	² Integrated Part Load Value (Btuh/Watt)	11.4	11.4	11.4
	Refrigerant Charge Furnished (R-22)	Circuit 1 8 lbs. 8 oz.	8 lbs. 8 oz.	10 lbs. 0 oz.
		Circuit 2 8 lbs. 8 oz.	8 lbs. 8 oz.	10 lbs. 0 oz.
³ Sound Rating Number (dB)		88	88	88
Compressor - Number and Type		(2) Scroll	(2) Scroll	(2) Scroll
Condenser Coil	Net face area - sq. ft.	29.3 total	29.3 total	29.3 total
	Tube diameter - in.	3/8	3/8	3/8
	Number of rows	2	2	2
	Fins per inch	20	20	20
Condenser Fans	Motor horsepower	(2) 1/3	(2) 1/3	(2) 1/3
	Motor rpm	1075	1075	1075
	Total Motor watts	700	700	700
	Diameter - in. - no. of blades	(2) 24 - 3	(2) 24 - 3	(2) 24 - 3
	Total air volume - cfm	8000	8000	8000
Evaporator Coil	Net face area - sq. ft.	10.5 total	10.5 total	10.5 total
	Tube diameter - in.	3/8	3/8	3/8
	Number of rows	3	3	4
	Fins per inch	14	14	14
	Drain Connection - no. & size	(1) 1 in. NPT coupling	(1) 1 in. NPT coupling	(1) 1 in. NPT coupling
	Expansion device type	Balanced Port Thermostatic Expansion Valve, removeable power head		
Standard Indoor Blower and Drive	⁴ Belt Drive - Nominal motor output	2 hp	2 hp	3 hp
	Maximum usable output (US Only)	2.3 hp	2.3 hp	3.45 hp
	Motor - Drive kit	kit #1 - 680 - 925 rpm	kit #1 - 680 - 925 rpm	kit #3 - 895 - 1120 rpm
	Wheel nominal diameter x width - in.	(1) 15 x 15	(1) 15 x 15	(1) 15 x 15
Filters	Type of filter	Disposable		
	Number and size - in.	(4) 18 x 24 x 2	(4) 18 x 24 x 2	(4) 18 x 24 x 2
Electrical characteristics		208/230V, 460V or 575V - 60 hertz - 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 ULE certification program, which is based on ARI Standard 340/360, 95°F outdoor air temperature and 80°F db/67°F wb entering evaporator air; minimum external duct static pressure.

² Integrated Part Load Value rated at 80°F outdoor air temperature, 80°F db/67°F wb indoor air temperature.

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

⁴ 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.

COOLING RATINGS

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

12.5 TON STANDARD EFFICIENCY - COOLING CAPACITY - ONE COMPRESSOR OPERATING

TCA150S

Entering Wet Bulb Temperature	Total Air Volume		Outdoor Air Temperature Entering Outdoor Coil																							
			65°F (18°C)						75°F (24°C)						85°F (29°C)						95°F (35°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)	3800	1795	71.7	21.0	3.91	.60	.76	.92	69.5	20.4	4.40	.61	.77	.94	67.3	19.7	4.93	.61	.79	.95	65.0	19.0	5.51	.63	.81	.97
	4400	2075	73.5	21.5	3.93	.63	.81	.98	71.2	20.9	4.44	.64	.83	.99	68.9	20.2	4.97	.66	.85	1.00	66.6	19.5	5.55	.67	.87	1.00
	5000	2360	75.1	22.0	3.96	.67	.87	1.00	72.8	21.3	4.46	.68	.89	1.00	70.4	20.6	4.99	.70	.91	1.00	68.0	19.9	5.58	.71	.93	1.00
67°F (19°C)	3800	1795	76.1	22.3	3.97	.47	.58	.71	73.7	21.6	4.47	.48	.58	.73	71.3	20.9	5.01	.48	.59	.74	68.8	20.2	5.59	.49	.60	.76
	4400	2075	77.8	22.8	3.99	.49	.60	.77	75.3	22.1	4.50	.49	.61	.79	72.8	21.3	5.04	.50	.63	.81	70.2	20.6	5.63	.50	.64	.83
	5000	2360	79.1	23.2	4.01	.50	.64	.82	76.6	22.4	4.52	.51	.65	.84	74.0	21.7	5.06	.51	.67	.87	71.3	20.9	5.66	.52	.69	.89
71°F (22°C)	3800	1795	81.0	23.7	4.04	.36	.46	.56	78.5	23.0	4.56	.36	.46	.56	75.9	22.2	5.10	.36	.47	.57	73.2	21.5	5.69	.36	.47	.58
	4400	2075	82.7	24.2	4.06	.36	.47	.58	80.0	23.4	4.58	.37	.48	.59	77.3	22.7	5.13	.37	.48	.60	74.5	21.8	5.73	.37	.49	.61
	5000	2360	84.0	24.6	4.08	.37	.49	.61	81.2	23.8	4.60	.37	.50	.63	78.5	23.0	5.15	.37	.50	.64	75.6	22.2	5.76	.38	.51	.66

12.5 TON STANDARD EFFICIENCY - COOLING CAPACITY - ALL COMPRESSORS OPERATING

TCA150S

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)	3800	1795	139.4	40.9	9.95	.66	.81	.95	134.8	39.5	11.12	.67	.83	.97	129.7	38.0	12.43	.68	.85	.99	124.3	36.4	13.92	.70	.87	1.00
	4400	2075	142.8	41.9	10.02	.70	.87	.99	138.1	40.5	11.20	.71	.88	1.00	132.9	38.9	12.51	.72	.90	1.00	127.5	37.4	13.99	.74	.93	1.00
	5000	2360	145.9	42.8	10.08	.73	.91	1.00	141.0	41.3	11.26	.75	.93	1.00	135.9	39.8	12.58	.77	.95	1.00	130.2	38.2	14.07	.79	.97	1.00
67°F (19°C)	3800	1795	147.8	43.3	10.11	.52	.64	.77	142.7	41.8	11.29	.53	.65	.79	137.3	40.2	12.62	.53	.66	.81	131.5	38.5	14.12	.54	.67	.83
	4400	2075	150.9	44.2	10.17	.54	.67	.83	145.7	42.7	11.36	.55	.68	.85	140.0	41.0	12.69	.55	.70	.87	134.0	39.3	14.20	.56	.72	.89
	5000	2360	153.4	45.0	10.22	.56	.71	.88	148.0	43.4	11.42	.56	.72	.90	142.3	41.7	12.75	.57	.74	.92	136.2	39.9	14.24	.58	.76	.94
71°F (22°C)	3800	1795	157.3	46.1	10.29	.39	.51	.62	151.9	44.5	11.49	.40	.51	.63	146.1	42.8	12.84	.40	.52	.64	139.9	41.0	14.35	.40	.53	.65
	4400	2075	160.3	47.0	10.36	.40	.53	.65	154.6	45.3	11.56	.40	.53	.66	148.7	43.6	12.90	.40	.54	.67	142.3	41.7	14.42	.41	.55	.69
	5000	2360	162.7	47.7	10.40	.41	.55	.68	156.9	46.0	11.62	.41	.55	.70	150.7	44.2	12.96	.41	.56	.72	144.2	42.3	14.47	.42	.57	.74

OUTDOOR SOUND DATA

Unit Model No.	Octave Band Sound Power Levels dBA, re 10 ⁻¹² Watts							Sound Rating Number (dB)
	Center Frequency - HZ							
	125	250	500	1000	2000	4000	8000	
090, 102, and 120S	76	79	84	83	79	73	66	88
120H and 150	77	80	85	84	79	74	66	88

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

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

BLOWER DATA

BELT DRIVE BLOWER - BASE UNIT

BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY (NO HEAT SECTION) WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE. FOR ALL UNITS ADD:

- 1 - Wet indoor coil air resistance of selected unit.
- 2 - Any factory installed options air resistance (heat section, economizer, etc.)
- 3 - Any field installed accessories air resistance (duct resistance, diffuser, etc.)

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

See below for blower motors and drives. See below for wet coil and option/accessory air resistance data.

MINIMUM AIR VOLUME REQUIRED FOR USE WITH OPTIONAL ELECTRIC HEAT

3000 cfm minimum air with electric heat for TCA090/102 models.

4000 cfm minimum air with electric heat for TCA120/150 models.

BOLD INDICATES FIELD FURNISHED DRIVE.

Air Volume cfm	.20		.40		.60		.80		1.00		1.20		1.40		1.60		1.80		2.00		2.20		2.40		2.60		
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM
2250	455	0.30	555	0.45	640	0.60	720	0.80	790	1.00	855	1.20	915	1.40	975	1.60	1030	1.85	1080	2.05	1130	2.30	1175	2.55	1220	2.80	
2500	475	0.40	575	0.55	660	0.70	735	0.90	805	1.10	870	1.30	930	1.55	985	1.75	1040	2.00	1090	2.25	1140	2.50	1185	2.75	1230	3.00	
2750	495	0.45	595	0.65	675	0.85	750	1.05	820	1.25	885	1.45	940	1.70	995	1.90	1050	2.20	1100	2.45	1145	2.65	1195	2.95	1240	3.25	
3000	525	0.55	615	0.75	695	0.95	770	1.20	835	1.40	895	1.60	955	1.85	1010	2.10	1060	2.35	1110	2.65	1160	2.90	1205	3.20	1250	3.45	
3250	550	0.65	640	0.90	715	1.10	790	1.35	855	1.60	915	1.80	970	2.05	1025	2.35	1075	2.60	1125	2.85	1170	3.15	1215	3.40	1260	3.70	
3500	580	0.80	665	1.05	740	1.25	810	1.50	870	1.75	930	2.00	985	2.25	1040	2.55	1090	2.85	1135	3.10	1185	3.40	1230	3.70	1270	4.00	
3750	605	0.95	690	1.20	760	1.45	830	1.70	890	1.95	950	2.25	1005	2.50	1055	2.80	1105	3.10	1150	3.35	1195	3.65	1240	3.95	1285	4.30	
4000	635	1.10	715	1.40	785	1.65	850	1.90	910	2.20	965	2.45	1020	2.75	1070	3.05	1120	3.35	1165	3.65	1210	3.95	1255	4.30	1295	4.60	
4250	665	1.30	740	1.60	810	1.85	870	2.15	930	2.45	985	2.75	1040	3.05	1090	3.35	1135	3.65	1185	4.00	1225	4.30	1270	4.65	1310	4.95	
4500	695	1.50	770	1.80	835	2.10	895	2.40	955	2.70	1005	3.00	1060	3.35	1105	3.65	1155	4.00	1200	4.30	1245	4.65	1285	5.00	1325	5.30	
4750	725	1.75	795	2.05	860	2.40	920	2.70	975	3.00	1030	3.35	1080	3.65	1125	3.95	1175	4.35	1215	4.65	1260	5.00	1300	5.35	1340	5.70	
5000	760	2.05	825	2.35	885	2.65	945	3.00	1000	3.35	1050	3.65	1100	4.00	1145	4.35	1190	4.70	1235	5.05	1280	5.45	---	---	---	---	
5250	790	2.30	855	2.65	910	2.95	970	3.35	1020	3.65	1070	4.00	1120	4.35	1165	4.70	1210	5.10	1255	5.45	---	---	---	---	---	---	
5500	820	2.60	880	2.95	940	3.30	995	3.70	1045	4.05	1095	4.40	1145	4.80	1190	5.15	1230	5.50	---	---	---	---	---	---	---	---	
5750	850	2.95	910	3.30	965	3.70	1020	4.05	1070	4.45	1120	4.80	1165	5.20	1210	5.60	---	---	---	---	---	---	---	---	---	---	
6000	885	3.35	940	3.70	995	4.10	1045	4.45	1095	4.85	1145	5.25	1190	5.65	---	---	---	---	---	---	---	---	---	---	---	---	

FACTORY INSTALLED DRIVE KIT SPECIFICATIONS

Motor Outputs		RPM Range				
Nominal hp	Maximum hp	Drive 1	Drive 3	Drive 4	Drive 5	Drive 6
2	2.3	680 - 925	895 - 1120	---	---	---
3	3.45	680 - 925	895 - 1120	---	1110 - 1395	---
5	5.75	---	---	895 - 1120	---	1110 - 1395

NOTE - Using total air volume and system static pressure requirements determine from blower performance tables rpm and motor output required. Maximum usable output of motors is 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.

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

Air Volume cfm	Wet Indoor Coil		Electric Heat	Economizer
	090, 102	120S, 120H, 150S		
2250	.06	.10	.01	.035
2500	.08	.12	.01	.04
2750	.09	.14	.01	.045
3000	.10	.16	.02	.05
3250	.11	.19	.02	.06
3500	.13	.21	.03	.07
3750	.14	.23	.03	.075
4000	.16	.26	.04	.08
4250	.17	.28	.04	.09
4500	.18	.31	.05	.10
4750	.20	.33	.05	.11
5000	.22	.36	.06	.12
5250	.24	.39	.06	.13
5500	.26	.42	.07	.14
5750	.28	.45	.07	.15
6000	.30	.48	.08	.16

BLOWER DATA

AIR RESISTANCE - CEILING DIFFUSERS - in. w.g.

Unit Size	Air Volume - cfm	RTD11 Step-Down Diffuser			FD11 Flush Diffuser
		2 Ends Open	1 Side, 2 Ends Open	All Ends & Sides Open	
090 Models	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
	3200	0.41	0.37	0.32	0.31
	3400	0.50	0.45	0.39	0.37
	3600	0.61	0.54	0.48	0.44
102 & 120 Models	3800	0.73	0.63	0.57	0.51
	3600	0.36	0.28	0.23	0.15
	3800	0.40	0.32	0.26	0.18
	4000	0.44	0.36	0.29	0.21
	4200	0.49	0.40	0.33	0.24
	4400	0.54	0.44	0.37	0.27
	4600	0.60	0.49	0.42	0.31
150 Models	4800	0.65	0.53	0.46	0.35
	5000	0.69	0.58	0.50	0.39
	5200	0.75	0.62	0.54	0.43
	4200	0.22	0.19	0.16	0.10
	4400	0.28	0.24	0.20	0.12
	4600	0.34	0.29	0.24	0.15
	4800	0.40	0.34	0.29	0.19
150 Models	5000	0.46	0.39	0.34	0.23
	5200	0.52	0.44	0.39	0.27
	5400	0.58	0.49	0.43	0.31
	5600	0.64	0.54	0.47	0.35
	5800	0.70	0.59	0.51	0.39

CEILING DIFFUSER AIR THROW DATA - feet

Model No.	Air Volume	¹ Effective Throw Range	
		RTD11 Step-Down	FD11 Flush
090	2600	24 - 29	19 - 24
	2800	25 - 30	20 - 28
	3000	27 - 33	21 - 29
	3200	28 - 35	22 - 29
	3400	30 - 37	22 - 30
102 120	3600	25 - 33	22 - 29
	3800	27 - 35	22 - 30
	4000	29 - 37	24 - 33
	4200	32 - 40	26 - 35
	4400	34 - 42	28 - 37
150	5600	39 - 49	28 - 37
	5800	42 - 51	29 - 38
	6000	44 - 54	40 - 50
	6200	45 - 55	42 - 51
	6400	46 - 55	43 - 52
	6600	47 - 56	45 - 56

POWER EXHAUST FANS PERFORMANCE

Return Air System Static Pressure - in.w.g.	Air Volume Exhausted - cfm
0	4200
0.05	3970
0.10	3750
0.15	3520
0.20	3300
0.25	3080
0.30	2860
0.35	2640

¹ Throw is the horizontal or vertical distance an air stream travels on leaving the outlet or diffuser before the maximum velocity is reduced to 50 ft. per minute. Four sides open.

ELECTRIC HEAT CAPACITIES

Volts Input	7.5 kW			15 kW			22.5 kW			30 kW			45 kW			60 kW		
	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	No. of Steps	kW Input	Btuh Output	No. of Steps
208	5.6	19,100	1	11.3	38,600	1	16.9	57,700	2	22.5	76,800	1	33.8	115,300	2	45.0	153,600	2
220	6.3	21,500	1	12.6	43,000	1	18.9	64,500	2	25.2	86,000	1	37.8	129,000	2	50.4	172,000	2
230	6.9	23,600	1	13.8	47,100	1	20.7	70,700	2	27.5	93,900	1	41.3	141,000	2	55.1	188,000	2
240	7.5	25,600	1	15.0	51,200	1	22.5	76,800	2	30.0	102,400	1	45.0	153,600	2	60.0	204,800	2
440	6.9	21,500	1	12.6	43,000	1	18.9	64,500	2	25.2	86,000	1	37.8	129,000	2	50.4	172,000	2
460	6.9	23,600	1	13.8	47,100	1	20.7	70,700	2	27.5	93,900	1	41.3	141,000	2	55.1	188,000	2
480	7.5	25,600	1	15.0	51,200	1	22.5	76,800	2	30.0	102,400	1	45.0	153,600	2	60.0	204,800	2
550	6.3	21,500	1	12.6	43,000	1	18.9	64,500	2	25.2	86,000	1	37.8	129,000	2	50.4	172,000	2
575	6.9	23,600	1	13.8	47,100	1	20.7	70,700	2	27.5	93,900	1	41.3	141,000	2	55.1	188,000	2
600	7.5	25,600	1	15.0	51,200	1	22.5	76,800	2	30.0	102,400	1	45.0	153,600	2	60.0	204,800	2

ELECTRICAL / ELECTRIC HEAT DATA

7.5 TON STANDARD EFFICIENCY

TCA090S

Model No.		TCA090S						
Line voltage data - 60 Hz - 3 phase		208/230V		460V		575V		
Compressors (2)	Rated load amps - each (total)	12.8 (25.6)		6.4 (12.8)		5.1 (10.2)		
	Locked rotor amps - each (total)	91 (182)		46 (92)		37 (74)		
Condenser Fan Motors (2)	Full load amps - each (total)	2.4 (4.8)		1.3 (2.6)		1.0 (2.0)		
	Locked rotor amps - each (total)	4.7 (9.4)		2.4 (4.8)		1.9 (3.8)		
Optional Power Exhaust Fan	(Number) Horsepower	(1) 1/3		(1) 1/3		(1) 1/3		
	Full load amps	2.4		1.3		1.0		
	Locked rotor amps	4.7		2.4		1.9		
Service Outlet (2) 115 volt GFCI (amp rating)		15		15		15		
Evaporator Blower Motor	Horsepower	2	3	2	3	2	3	
	Full load amps	7.5	10.6	3.4	4.8	2.7	3.9	
	Locked rotor amps	46.9	66	20.4	26.8	16.2	23.4	
¹ Maximum Overcurrent Protection (amps)	Unit Only	50	50	25	25	20	20	
	With Exhaust Fan and Electric Heat	0 kW	50	50	25	25	20	20
		7.5 kW	50	50	25	25	20	20
		15 kW	60	70	30	35	25	30
		22.5 kW	90	90	45	45	35	35
		30 kW	110	110	60	60	45	45
45 kW	150	175	80	80	60	70		
² Minimum Circuit Ampacity	Unit Only	42	45	21	22	17	18	
	With Exhaust Fan and Electric Heat	0 kW	44	47	22	24	18	19
		7.5 kW	44	47	22	24	18	19
		15 kW	58	62	29	31	23	25
		22.5 kW	80	84	40	42	32	34
		30 kW	103	107	51	53	41	43
45 kW	148	152	74	76	59	61		
Unit Fuse Block	Unit Only	56K93	56K93	56K52	56K52	56K51	56K51	
	With Power Exhaust	56K93	56K93	56K52	56K52	56K51	56K51	
Disconnect	0 - 22.5 kW	80M00	80M00	80M00	80M00	80M00	80M00	
	30 kW	80M01	80M01	80M00	80M00	80M00	80M00	
	45 kW	80M01	80M01	80M00	80M00	80M00	80M00	
Terminal Block		30K75		30K75		30K75		

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 Required with 45 kW electric heat.

ELECTRICAL / ELECTRIC HEAT DATA

7.5 TON HIGH EFFICIENCY

TCA090H

Model No.		TCA090H						
Line voltage data - 60 Hz - 3 phase		208/230V		460V		575V		
Compressors (2)	Rated load amps - each (total)	12.4 (24.9)		6.4 (12.8)		4.8 (9.6)		
	Locked rotor amps - each (total)	88 (176)		44 (88)		34 (68)		
Condenser Fan Motors (2)	Full load amps - each (total)	2.4 (4.8)		1.3 (2.6)		1.0 (2.0)		
	Locked rotor amps - each (total)	4.7 (9.4)		2.4 (4.8)		1.9 (3.8)		
Optional Power Exhaust Fan	(Number) Horsepower	(1) 1/3		(1) 1/3		(1) 1/3		
	Full load amps	2.4		1.3		1.0		
	Locked rotor amps	4.7		2.4		1.9		
Service Outlet (2) 115 volt GFCI (amp rating)		15		15		15		
Evaporator Blower Motor	Horsepower	2	3	2	3	2	3	
	Full load amps	7.5	10.6	3.4	4.8	2.7	3.9	
	Locked rotor amps	46.9	66	20.4	26.8	16.2	23.4	
¹ Maximum Overcurrent Protection (amps)	Unit Only	50	50	25	25	20	20	
	With Exhaust Fan and Electric Heat	0 kW	50	50	25	25	20	20
		7.5 kW	50	50	25	25	20	20
		15 kW	60	70	30	35	25	30
		22.5 kW	90	90	45	45	35	35
		30 kW	110	110	60	60	45	45
		45 kW	150	175	80	80	60	70
² Minimum Circuit Ampacity	Unit Only	41	44	21	22	16	17	
	With Exhaust Fan and Electric Heat	0 kW	43	46	22	24	17	18
		7.5 kW	43	46	22	24	17	18
		15 kW	58	62	29	31	23	25
		22.5 kW	80	84	40	42	32	34
		30 kW	103	107	51	53	41	43
		45 kW	148	152	74	76	59	61
Unit Fuse Block	Unit Only	56K93	56K93	56K52	56K52	56K51	56K51	
	With Power Exhaust	56K93	56K93	56K52	56K52	56K51	56K51	
Disconnect	0 - 22.5 kW	80M00	80M00	80M00	80M00	80M00	80M00	
	30 kW	80M01	80M01	80M00	80M00	80M00	80M00	
	45 kW	80M01	80M01	80M00	80M00	80M00	80M00	
Terminal Block		30K75		30K75		30K75		

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

8.5 TON STANDARD EFFICIENCY

TCA102S

Model No.		TCA102S						
Line voltage data - 60 Hz - 3 phase		208/230V		460V		575V		
Compressors (2)	Rated load amps - each (total)	14.7 (29.4)		7.1 (14.2)		5.8 (11.6)		
	Locked rotor amps - each (total)	91 (182)		50 (100)		37 (74)		
Condenser Fan Motors (2)	Full load amps - each (total)	2.4 (4.8)		1.3 (2.6)		1.0 (2.0)		
	Locked rotor amps - each (total)	4.7 (9.4)		2.4 (4.8)		1.9 (3.8)		
Optional Power Exhaust Fan	(Number) Horsepower	(1) 1/3		(1) 1/3		(1) 1/3		
	Full load amps	2.4		1.3		1.0		
	Locked rotor amps	4.7		2.4		1.9		
Service Outlet (2) 115 volt GFCI (amp rating)		15		15		15		
Evaporator Blower Motor	Horsepower	2	3	2	3	2	3	
	Full load amps	7.5	10.6	3.4	4.8	2.7	3.9	
	Locked rotor amps	46.9	66	20.4	26.8	16.2	23.4	
¹ Maximum Overcurrent Protection (amps)	Unit Only	60	60	25	30	20	20	
	With Exhaust Fan and Electric Heat	0 kW	60	60	30	30	20	25
		7.5 kW	60	60	30	30	20	25
		15 kW	60	70	30	35	25	30
		22.5 kW	90	90	45	45	35	35
		30 kW	110	110	60	60	45	45
		45 kW	150	175	80	80	60	70
² Minimum Circuit Ampacity	Unit Only	46	49	22	27	18	19	
	With Exhaust Fan and Electric Heat	0 kW	48	51	24	25	19	20
		7.5 kW	48	51	24	25	19	20
		15 kW	58	62	29	31	23	25
		22.5 kW	80	84	40	42	32	34
		30 kW	103	107	51	53	41	43
		45 kW	148	152	74	76	59	61
Unit Fuse Block	Unit Only	56K94	56K94	56K52	25K08	56K51	56K51	
	With Power Exhaust	56K94	56K94	25K08	25K08	56K51	56K52	
Disconnect	0 - 22.5 kW	80M00	80M00	80M00	80M00	80M00	80M00	
	30 kW	80M01	80M01	80M00	80M00	80M00	80M00	
	45 kW	80M01	80M01	80M00	80M00	80M00	80M00	
Terminal Block		30K75		30K75		30K75		

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

8.5 TON HIGH EFFICIENCY

TCA102H

Model No.		TCA102H						
Line voltage data - 60 Hz - 3 phase		208/230V		460V		575V		
Compressors (2)	Rated load amps - each (total)	14.7 (29.4)		7.1 (14.2)		5.1 (10.2)		
	Locked rotor amps - each (total)	91 (182)		46 (92)		37 (74)		
Condenser Fan Motors (2)	Full load amps - each (total)	2.4 (4.8)		1.3 (2.6)		1.0 (2.0)		
	Locked rotor amps - each (total)	4.7 (9.4)		2.4 (4.8)		1.9 (3.8)		
Optional Power Exhaust Fan	(Number) Horsepower	(1) 1/3		(1) 1/3		(1) 1/3		
	Full load amps	2.4		1.3		1.0		
	Locked rotor amps	4.7		2.4		1.9		
Service Outlet (2) 115 volt GFCI (amp rating)		15		15		15		
Evaporator Blower Motor	Horsepower	2	3	2	3	2	3	
	Full load amps	7.5	10.6	3.4	4.8	2.7	3.9	
	Locked rotor amps	46.9	66	20.4	26.8	16.2	23.4	
¹ Maximum Overcurrent Protection (amps)	Unit Only	60	60	25	30	20	20	
	With Exhaust Fan and Electric Heat	0 kW	60	60	30	30	20	20
		7.5 kW	60	60	30	30	20	20
		15 kW	60	70	30	35	25	30
		22.5 kW	90	90	45	45	35	35
		30 kW	110	110	60	60	45	45
		45 kW	150	175	80	80	60	70
² Minimum Circuit Ampacity	Unit Only	46	49	22	24	17	18	
	With Exhaust Fan and Electric Heat	0 kW	48	51	24	25	18	19
		7.5 kW	48	51	24	25	18	19
		15 kW	58	62	29	31	23	25
		22.5 kW	80	84	40	42	32	34
		30 kW	103	107	51	53	41	43
		45 kW	148	152	74	76	59	61
Unit Fuse Block	Unit Only	56K94	56K94	56K52	25K08	56K51	56K51	
	With Power Exhaust	56K94	56K94	25K08	25K08	56K51	56K51	
Disconnect	0 - 22.5 kW	80M00	80M00	80M00	80M00	80M00	80M00	
	30 kW	80M01	80M01	80M00	80M00	80M00	80M00	
	45 kW	80M01	80M01	80M00	80M00	80M00	80M00	
Terminal Block		30K75		30K75		30K75		

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

10 TON STANDARD EFFICIENCY

TCA120S

Model No.		TCA120S									
Line voltage data - 60 Hz - 3 phase		208/230V			460V			575V			
Compressors (2)	Rated load amps - each (total)	15.4 (30.8)			7.4 (14.8)			5.9 (11.8)			
	Locked rotor amps - each (total)	124 (248)			59.6 (119.2)			49.4 (98.8)			
Condenser Fan Motors (2)	Full load amps - each (total)	2.4 (4.8)			1.3 (2.6)			1.0 (2.0)			
	Locked rotor amps - each (total)	4.7 (9.4)			2.4 (4.8)			1.9 (3.8)			
Optional Power Exhaust Fan	(Number) Horsepower	(1) 1/3			(1) 1/3			(1) 1/3			
	Full load amps	2.4			1.3			1.0			
	Locked rotor amps	4.7			2.4			1.9			
Service Outlet (2) 115 volt GFCI (amp rating)		15			15			15			
Evaporator Blower Motor	Horsepower	2	3	5	2	3	5	2	3	5	
	Full load amps	7.5	10.6	16.7	3.4	4.8	7.6	2.7	3.9	6.1	
	Locked rotor amps	46.9	66	105	20.4	26.8	45.6	16.2	23.4	36.6	
¹ Maximum Overcurrent Protection (amps)	Unit Only	60	60	70	30	30	30	20	25	25	
	With Exhaust Fan and Electric Heat	0 kW	60	60	70	30	30	35	20	25	25
		15 kW	70	60	70	35	30	35	25	30	30
		22.5 kW	90	90	100	45	45	50	35	35	40
		30 kW	110	110	125	60	60	60	45	45	50
		45 kW	150	175	175	80	80	80	60	70	70
		60 kW	175	175	175	80	90	90	70	70	70
² Minimum Circuit Ampacity	Unit Only	47	51	57	23	25	27	18	20	22	
	With Exhaust Fan and Electric Heat	0 kW	50	53	59	24	26	29	19	21	23
		15 kW	58	62	69	29	31	34	23	25	27
		22.5 kW	80	84	92	40	42	45	32	34	36
		30 kW	103	107	115	51	53	57	41	43	45
		45 kW	148	152	160	74	76	79	59	61	63
		60 kW	157	161	169	79	80	84	63	64	67
Unit Fuse Block	Unit Only	56K94	56K94	56K95	25K08	25K08	25K08	56K51	56K52	56K52	
	With Power Exhaust	56K94	56K94	56K95	25K08	25K08	25K09	56K51	56K52	56K52	
Disconnect	0 - 15 kW	80M00	80M00	80M00	80M00	80M00	80M00	80M00	80M00	80M00	
	22.5 kW	80M01	80M01	80M01	80M00	80M00	80M00	80M00	80M00	80M00	
	30 - 45 kW	80M01	80M01	80M01	80M00	80M00	80M00	80M00	80M00	80M00	
	60 kW	80M02	80M02	80M02	80M01	80M01	80M01	80M00	80M00	80M00	
Terminal Block	0-45 kW	30K75			30K75			30K75			
	60 kW	30K75			30K75			30K75			

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

10 TON HIGH EFFICIENCY

TCA120H

Model No.		TCA120H									
Line voltage data - 60 Hz - 3 phase		208/230V			460V			575V			
Compressors (2)	Rated load amps - each (total)	17.3 (34.6)			9.0 (18.0)			7.1 (14.2)			
	Locked rotor amps - each (total)	123 (246)			62 (124)			50 (100)			
Condenser Fan Motors (2)	Full load amps - each (total)	2.4 (4.8)			1.3 (2.6)			1.0 (2.0)			
	Locked rotor amps - each (total)	4.7 (9.4)			2.4 (4.8)			1.9 (3.8)			
Optional Power Exhaust Fan	(Number) Horsepower	(1) 1/3			(1) 1/3			(1) 1/3			
	Full load amps	2.4			1.3			1.0			
	Locked rotor amps	4.7			2.4			1.9			
Service Outlet (2) 115 volt GFCI (amp rating)		15			15			15			
Evaporator Blower Motor	Horsepower	2	3	5	2	3	5	2	3	5	
	Full load amps	7.5	10.6	16.7	3.4	4.8	7.6	2.7	3.9	6.1	
	Locked rotor amps	46.9	66	105	20.4	26.8	45.6	16.2	23.4	36.6	
¹ Maximum Overcurrent Protection (amps)	Unit Only	60	70	70	35	35	35	25	25	30	
	With Exhaust Fan and Electric Heat	0 kW	70	70	80	35	35	40	25	30	30
		15 kW	70	70	70	35	35	40	25	30	30
		22.5 kW	90	90	100	45	45	50	35	35	40
		30 kW	110	110	125	60	60	60	45	45	50
		45 kW	150	175	175	80	80	80	60	70	70
		60 kW	175	175	175	80	90	90	70	70	70
² Minimum Circuit Ampacity	Unit Only	52	55	61	27	28	31	21	22	25	
	With Exhaust Fan and Electric Heat	0 kW	54	57	63	28	29	32	22	23	26
		15 kW	58	62	69	29	31	34	23	25	27
		22.5 kW	80	84	92	40	42	45	32	34	36
		30 kW	103	107	115	51	53	57	41	43	45
		45 kW	148	152	160	74	76	79	59	61	63
		60 kW	157	161	169	79	80	84	63	64	67
Unit Fuse Block	Unit Only	56K94	56K95	56K95	25K09	25K09	25K09	56K52	56K52	25K08	
	With Power Exhaust	56K95	56K95	56K96	25K09	25K09	25K10	56K52	56K52	25K08	
Disconnect	0 - 15 kW	80M00	80M00	80M00	80M00	80M00	80M00	80M00	80M00	80M00	
	30 kW	80M00	80M00	80M01	80M00	80M00	80M00	80M00	80M00	80M00	
	30 - 45 kW	80M01	80M01	80M01	80M00	80M00	80M00	80M00	80M00	80M00	
	60 kW	80M02	80M02	80M02	80M01	80M01	80M01	80M00	80M00	80M00	
Terminal Block	0-45 kW	30K75			30K75			30K75			
	60 kW	30K75			30K75			30K75			

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

12.5 TON STANDARD EFFICIENCY

TCA150S

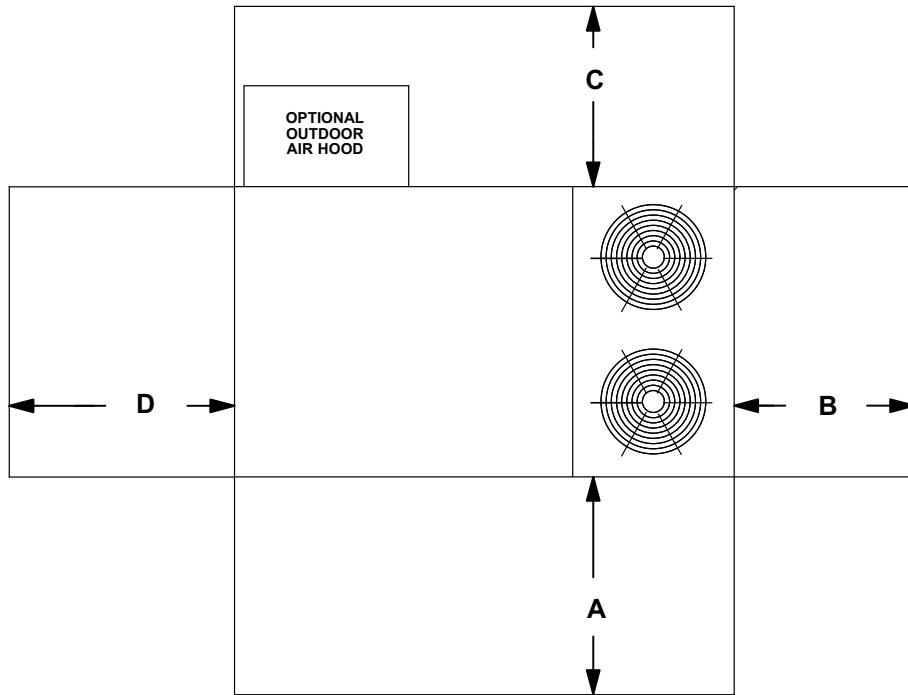
Model No.		TCA150S						
Line voltage data - 60 Hz - 3 phase		208/230V		460V		575V		
Compressors (2)	Rated load amps - each (total)	18.6 (37.2)		9 (18)		7.4 (14.8)		
	Locked rotor amps - each (total)	156 (312)		75 (150)		54 (108)		
Condenser Fan Motors (2)	Full load amps - each (total)	3.0 (6.0)		1.5 (3.0)		1.2 (2.4)		
	Locked rotor amps - each (total)	6.0 (12.0)		3.0 (6.0)		2.9 (5.8)		
Optional Power Exhaust Fan	(Number) Horsepower	(1) 1/3		(1) 1/3		(1) 1/3		
	Full load amps	2.4		1.3		1.0		
	Locked rotor amps	4.7		2.4		1.9		
Service Outlet (2) 115 volt GFCI (amp rating)		15		15		15		
Evaporator Blower Motor	Horsepower	3	5	3	5	3	5	
	Full load amps	10.6	16.7	4.8	7.6	3.9	6.1	
	Locked rotor amps	66	105	26.8	45.6	23.4	36.6	
¹ Maximum Overcurrent Protection (amps)	Unit Only	70	80	35	35	30	30	
	With Exhaust Fan and Electric Heat	0 kW	70	80	35	40	30	30
		15 kW	70	80	35	40	30	30
		22.5 kW	90	100	45	50	35	40
		30 kW	110	125	60	60	45	50
		45 kW	175	175	80	80	70	70
		60 kW	175	175	90	90	70	70
² Minimum Circuit Ampacity	Unit Only	59	65	29	31	23	26	
	With Exhaust Fan and Electric Heat	0 kW	61	67	30	33	24	27
		15 kW	62	69	31	34	25	27
		22.5 kW	84	92	42	45	34	36
		30 kW	107	115	53	57	43	45
		45 kW	152	160	76	79	61	63
		60 kW	161	169	80	84	64	67
Unit Fuse Block	Unit Only	56K95	56K96	25K09	25K09	25K08	25K08	
	With Power Exhaust	56K95	56K96	25K09	25K10	25K08	25K08	
Disconnect	0 - 15 kW	80M00	80M00	80M00	80M00	80M00	80M00	
	22.5 kW	80M00	80M01	80M00	80M00	80M00	80M00	
	30 - 45 kW	80M01	80M01	80M00	80M00	80M00	80M00	
	60 kW	80M02	80M02	80M01	80M01	80M00	80M00	
Terminal Block	0-45 kW	30K75		30K75		30K75		
	60 kW	30K75		30K75		30K75		

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

¹ HACR type breaker or fuse.

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

UNIT CLEARANCES - INCHES (MM)



¹ Unit Clearance	A		B		C		D		Top Clearance
	in.	mm	in.	mm	in.	mm	in.	mm	
Service Clearance	60	1524	36	914	36	914	36	914	Unobstructed
Minimum Operation Clearance	36	914	36	914	36	914	36	914	

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

¹ **Service Clearance** - Required for removal of serviceable parts.

Minimum Operation Clearance - Required clearance for proper unit operation.

WEIGHT DATA

Model Number	Net		Shipping	
	lbs.	kg	lbs.	kg
090/102 Base Unit	1220	553	1305	592
090/102 Max. Unit	1450	658	1335	696
120 Base Unit	1275	578	1360	617
120 Max. Unit	1495	678	1580	717
150 Base Unit	1310	594	1395	633
150 Max. Unit	1530	694	1615	733

OPTIONS / ACCESSORIES

		Weight	
		lbs.	kg.
CEILING DIFFUSERS			
Step-Down	RTD11-95	88	40
	RTD11-135	205	93
	RTD11-185	392	178
Flush	FD11-95	75	34
	FD11-135	174	79
	FD11-185	289	131
Transitions	LASRT08/10	30	14
	LASRT10/12	32	15
	LASRT15	36	16

ECONOMIZER / OUTDOOR AIR / EXHAUST

Economizer	LAREMD10/15	47	21
Barometric Relief			
Down-Flow Barometric Relief Dampers	LAGED10/15	8	4
Horizontal Barometric Relief Dampers	LAGEDH18/24	20	9
Outdoor Air Dampers			
Damper Section (down-flow) - Automatic	LAOADM10/15	31	14
Damper Section (down-flow) - Manual	LAOAD10/15	26	12
Outdoor Air Hood (down-flow)	LAOAH10/15	11	5
Power Exhaust	LAPEF10/15	28	13

PACKAGING

LTL Packaging (less than truck load)		105	48
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ROOF CURBS - CLIPLOCK 1000

Down-Flow			
14 in. height	LARMF10/15S-14	115	52
18 in. height	LARMF10/15S-28	156	71
24 in. height	LARMF10/15S-24	189	86

ROOF CURBS - STANDARD

Down-Flow			
14 in. height	LARMF10/15-14	126	57
24 in. height	LARMF10/15-24	174	79

ELECTRIC HEAT

7.5 to 15 kW		31	14
22.5 to 30 kW		38	17
45 kW		42	19
60 kW		49	22

Base Unit - The unit with low fire heat exchanger NO OPTIONS.

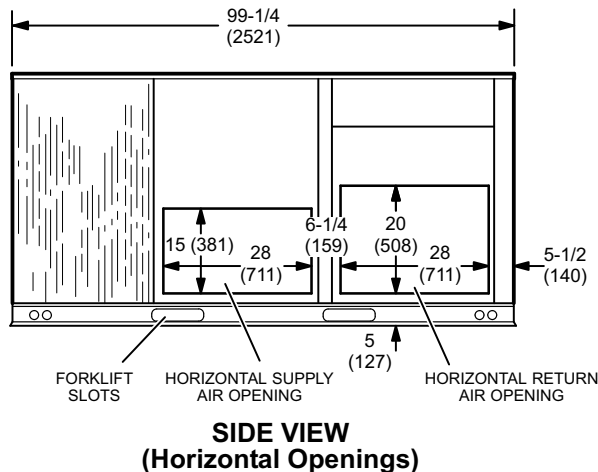
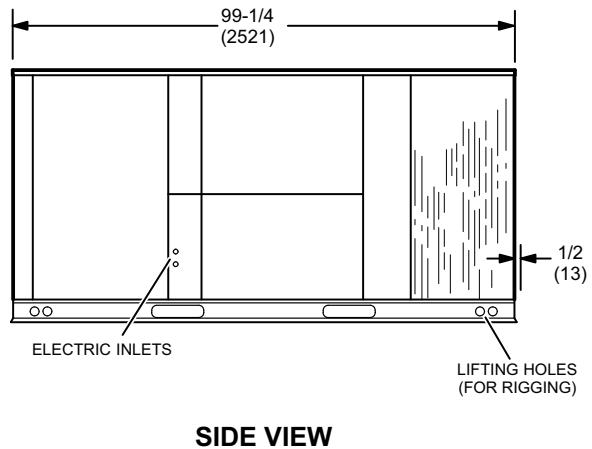
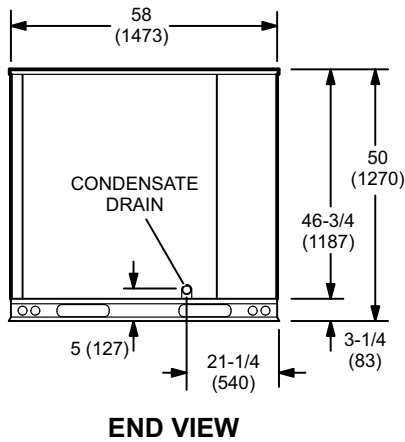
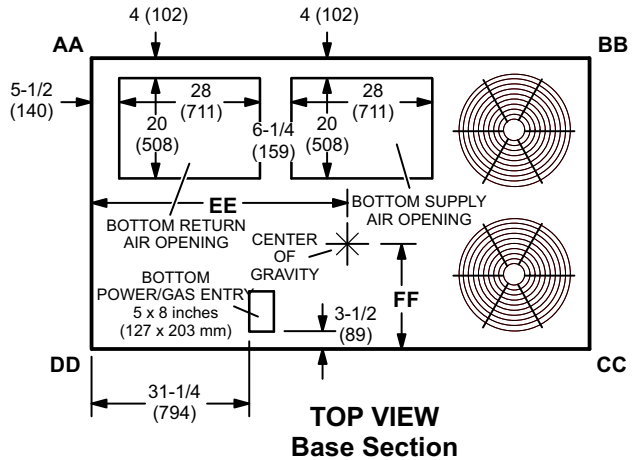
Max. Unit - The unit with ALL OPTIONS Installed. (High Input Heat Exchanger, Economizer, Power Exhaust Fans, Controls)

DIMENSIONS - INCHES (MM)

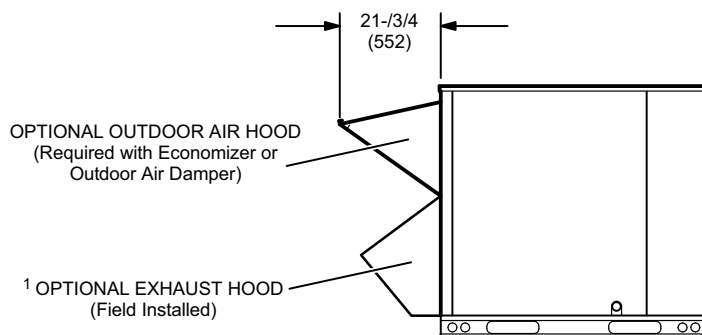
Model Number	CORNER WEIGHTS								CENTER OF GRAVITY			
	AA		BB		CC		DD		EE		FF	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	inch	mm	inch	mm
090/102 Base Unit	295	134	271	123	308	140	346	160	47	1194	21-1/2	546
090/102 Max. Unit	364	165	320	145	352	160	413	187	45-1/2	1156	23-1/2	597
120 Base Unit	308	140	283	128	322	146	361	164	47	1194	21-1/2	546
120 Max. Unit	375	170	330	150	363	165	426	193	45-1/2	1156	23-1/2	597
150 Base Unit	314	142	299	136	337	153	359	163	48-1/2	1232	22-1/2	572
150 Max. Unit	382	173	344	156	377	171	427	194	46-1/2	1181	24	610

Base Unit - Unit with NO OPTIONS.

Max. Unit - Unit with ALL OPTIONS Installed. (Economizer, Power Exhaust Fans and Controls)



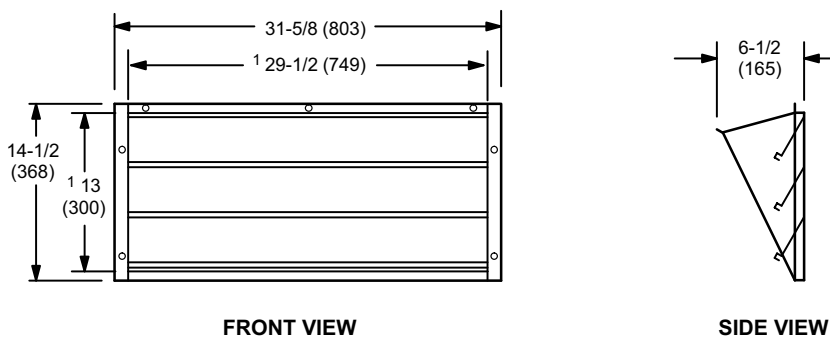
OPTIONAL OUTDOOR AIR HOOD DETAIL



¹ NOTE — Field Installed in Return Air Duct for Horizontal Applications.

HORIZONTAL BAROMETRIC RELIEF DAMPERS

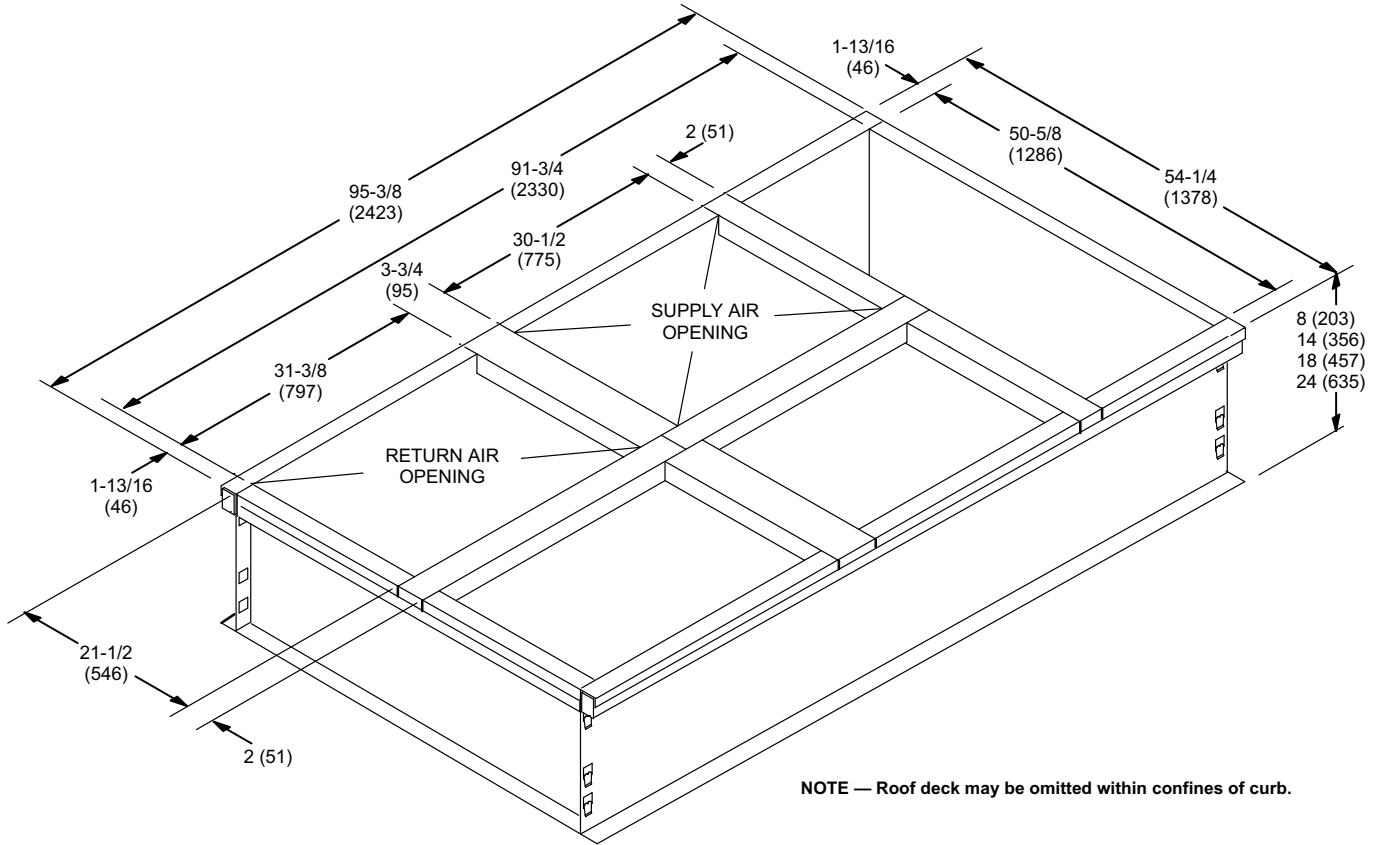
(Field installed in horizontal return air duct adjacent to unit)



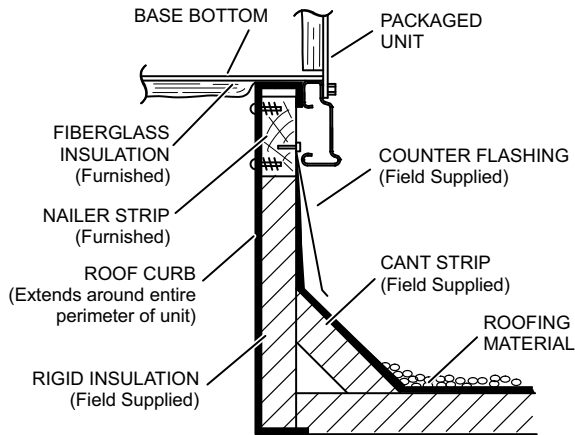
¹ NOTE - Opening size required in return air duct.

ACCESSORY DIMENSIONS - INCHES (MM)

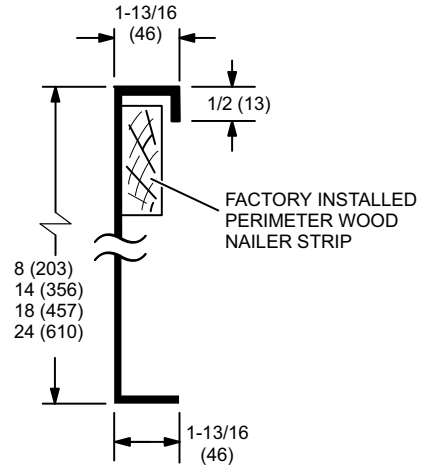
CLIPLOCK 1000 ROOF CURBS - DOUBLE DUCT OPENING



TYPICAL FLASHING DETAIL FOR ROOF CURB

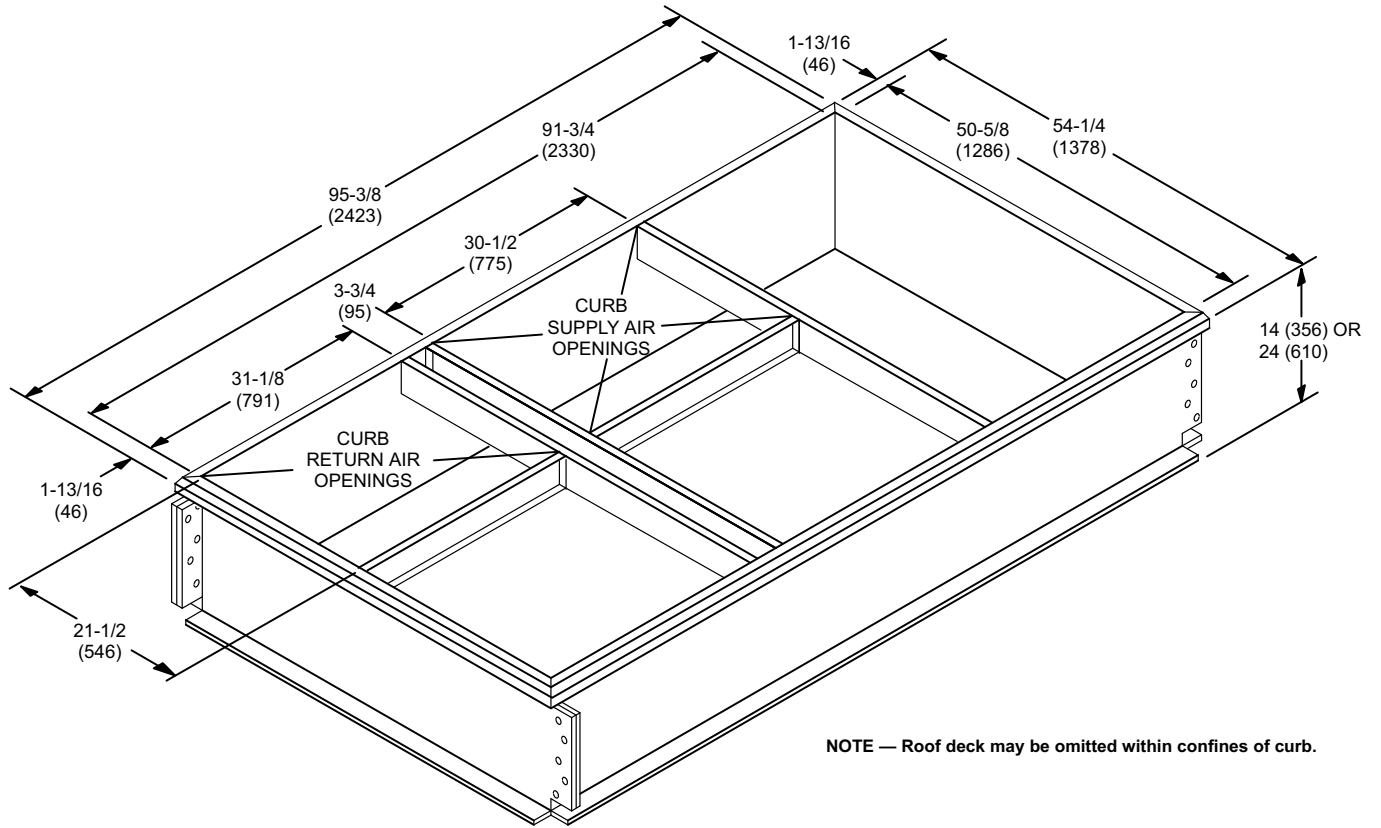


DETAIL ROOF CURB



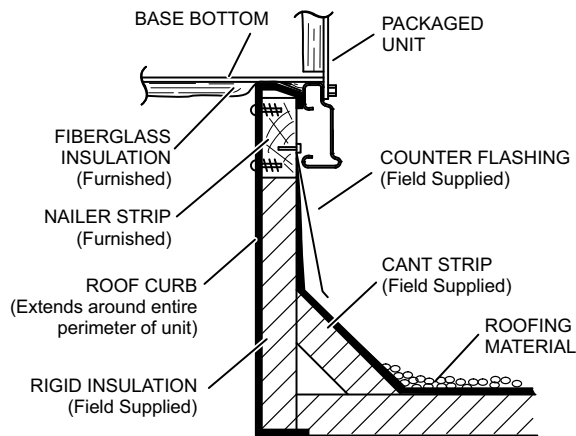
ACCESSORY DIMENSIONS - INCHES (MM)

STANDARD ROOF CURBS - DOUBLE DUCT OPENING

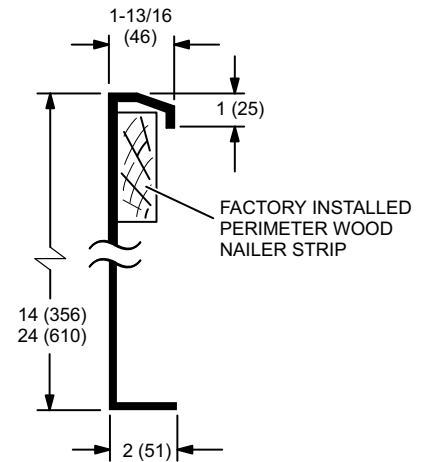


NOTE — Roof deck may be omitted within confines of curb.

TYPICAL FLASHING DETAIL FOR ROOF CURB

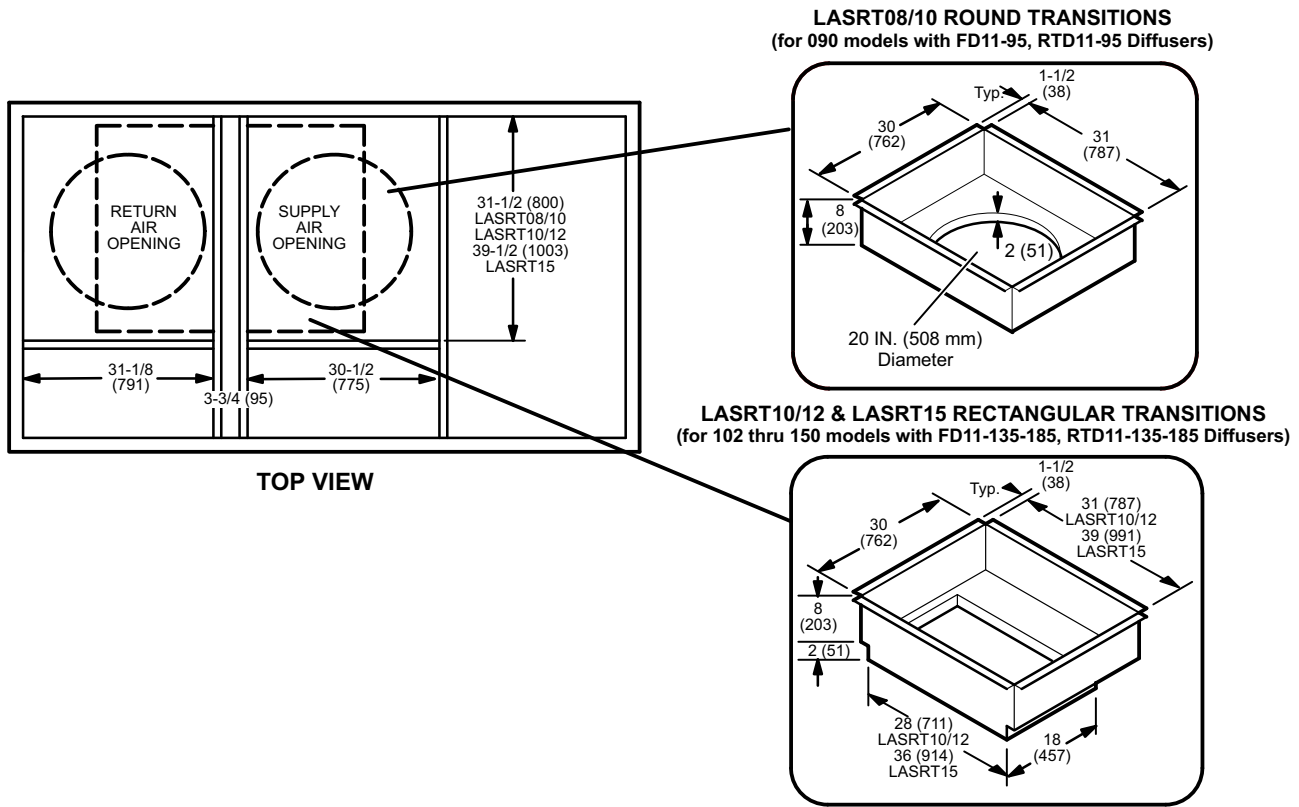


DETAIL ROOF CURB



ACCESSORY DIMENSIONS - INCHES (MM)

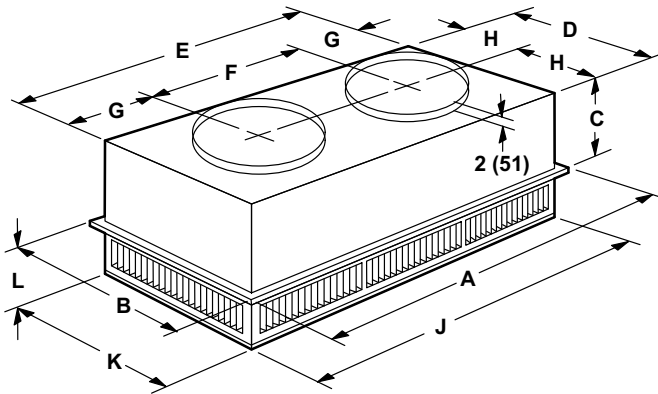
ROOF CURBS WITH SUPPLY & RETURN AIR TRANSITIONS FOR CEILING DIFFUSERS



ACCESSORY DIMENSIONS - INCHES (MM)

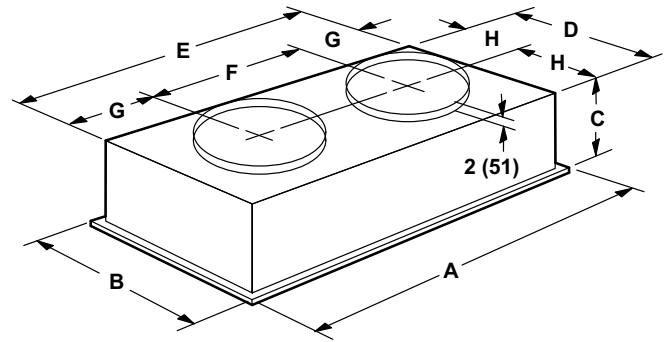
COMBINATION CEILING SUPPLY AND RETURN DIFFUSERS

STEP-DOWN CEILING DIFFUSER



Model Number		RTD11-95
A	in.	47-5/8
	mm	1159
B	in.	29-5/8
	mm	752
C	in.	14-3/8
	mm	365
D	in.	27-1/2
	mm	699
E	in.	45-1/2
	mm	1158
F	in.	22-1/2
	mm	572
G	in.	11-1/2
	mm	292
H	in.	13-3/4
	mm	349
J	in.	45-1/2
	mm	1156
K	in.	27-1/2
	mm	699
L	in.	8-1/8
	mm	206
Duct Size	in.	20 round
	mm	508 round

FLUSH CEILING DIFFUSER

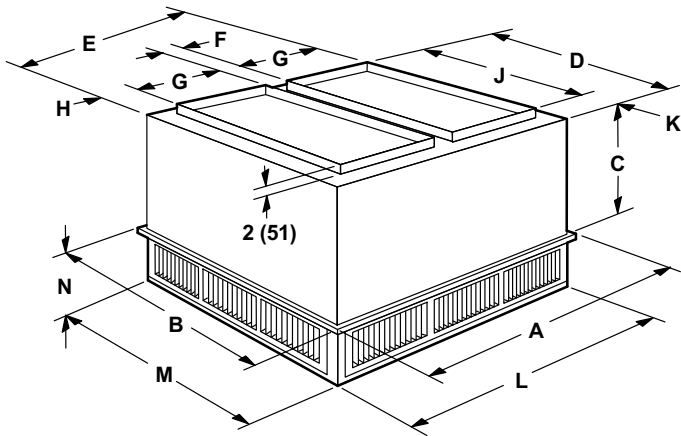


Model Number		FD11-95
A	in.	47-5/8
	mm	1159
B	in.	29-5/8
	mm	752
C	in.	16-5/8
	mm	422
D	in.	27
	mm	686
E	in.	45
	mm	1143
F	in.	22-1/2
	mm	572
G	in.	11-1/4
	mm	286
H	in.	13-1/2
	mm	343
Duct Size	in.	20 round
	mm	508 round

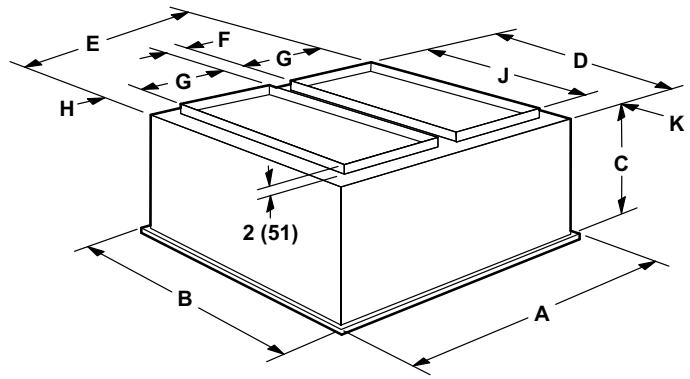
ACCESSORY DIMENSIONS - INCHES (MM)

COMBINATION CEILING SUPPLY AND RETURN DIFFUSERS

STEP-DOWN CEILING DIFFUSER



FLUSH CEILING DIFFUSER



Model Number		RTD11-135	RTD11-185
A	in.	47-5/8	47-5/8
	mm	1210	1210
B	in.	35-5/8	47-5/8
	mm	905	1210
C	in.	20-5/8	24-5/8
	mm	524	625
D	in.	33-1/2	45-1/2
	mm	851	1156
E	in.	45-1/2	45-1/2
	mm	1156	1156
F	in.	4-1/2	4-1/2
	mm	114	114
G	in.	18	18
	mm	457	457
H	in.	2-1/2	2-1/2
	mm	64	64
J	in.	28	36
	mm	711	914
K	in.	2-3/4	4-3/4
	mm	70	121
L	in.	45-1/2	45-1/2
	mm	1156	1156
M	in.	33-1/2	45-1/2
	mm	851	1156
N	in.	9-1/8	10-1/8
	mm	232	257
Duct Size	in.	18 x 28	18 x 36
	mm	457 x 711	457 x 914

Model Number		FD11-135	FD11-185
A	in.	47-5/8	47-5/8
	mm	1210	1210
B	in.	35-5/8	47-5/8
	mm	905	1210
C	in.	23-1/4	29-1/4
	mm	591	743
D	in.	33	45
	mm	838	1143
E	in.	45	45
	mm	1143	1143
F	in.	4-1/2	4-1/2
	mm	114	114
G	in.	18	18
	mm	457	457
H	in.	2-1/4	2-1/4
	mm	57	57
J	in.	28	36
	mm	711	914
K	in.	2-1/2	4-1/2
	mm	64	114
Duct Size	in.	18 x 28	18 x 36
	mm	457 x 711	457 x 914

REVISIONS

Sections	Description of Change
Optional Accessories	Updated Information - Smoke Detectors.



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