

REZTOR[®]

**INDOOR/
VERTICAL
SPLIT SYSTEM
HVAC
CATALOG**

**COMMERCIAL/INDUSTRIAL AIR
HANDLER AND CONDENSING UNIT**

AIR HANDLER CAPACITIES

1,600 - 6,580 CFM Air

150 - 400 MBH Heating (Gas/LP)

5 - 15 Tons Cooling (DX)

CONFIGURATION

Vertical Indoor

FUEL TYPES

Natural Gas

Propane

Visit www.ReznorHVAC.com for more
information.

Form C-CAUA-1016

BACKGROUND

The first Reznor "Reflector Type" residential gas space heater was invented in 1888 by George Reznor. This technological breakthrough was an immediate success and hastened the expansion of gas heating in residential and commercial applications. Technological development and innovation have been the hallmark of Reznor products through the years. From the development of the forced air gas unit heater, to the modular Thermocore® heat exchanger, through the high-efficiency, sealed-draft Venturion® unit heater, to today's very high efficiency V3® and T_{CORE}3® heat exchangers, have kept Reznor products at the forefront of technological advances in commercial and industrial gas heating.

In the modern world air conditioning is almost a necessity. Reznor commercial/industrial air conditioning equipment provides fuel efficient cooling for recirculated or up to 100% outside air. Reznor products include evaporative cooling units, chilled water coils and DX coils (with ozone-friendly R410A refrigerant).

As a result of this pioneering role in the heating, makeup air, and ventilating equipment field, the products offered today are the most advanced in engineering design to satisfy a wide variety of applications.

FACILITIES

Reznor heaters were first manufactured and sold in Mercer, Pennsylvania (70 miles north of Pittsburgh) in 1888. Over the years, the company has grown and expanded. Today, with sales worldwide, Reznor products are being manufactured in facilities throughout North America and Europe.

PRODUCT SCOPE

Well-equipped engineering laboratories for both product development and testing can be found at many of the manufacturing sites. All domestic lab sites are agency approved.

Reznor Products include a complete line of heating, makeup air and ventilating systems, using gas, oil, hot water/steam, or electric heat sources. Reznor heater catalogs are designed to aid the engineer, architect or contractor in specifying the correct equipment for all standard and special applications. Technical data is presented on unit heaters, duct furnaces, infrared heaters, makeup air systems, pre-engineered custom-designed systems, energy recovery units, packaged cooling, and evaporative cooling modules. Consult your local Reznor Sales Representative for further assistance in specifying Reznor Equipment for your specific application.

SERVICES

Product service requirements are handled through contractors and/or distributors, with backup from local representatives and factory-based service team. Replacement parts inventories for both warranty and non-warranty requirements are maintained at service centers throughout the country and at the manufacturing facilities.

For the Reznor Representative in your area call 800-695-1901 or go to our website ReznorHVAC.com.

REZNOR®



Air Handler Split Systems (up to 400 MBH)



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IMPORTANT: Specifications are subject to change without notice. This guide is intended to provide specifications and technical information only.

This guide is not intended to be an instruction manual. When installing heating and ventilating equipment, you must check and conform to all local and national building codes. Improper installation of heating and ventilating equipment could be dangerous. Consult manufacturer's installation manual for instructions and important warnings.

Vertical Split System Air Handler

CONDENSING UNIT

REZNOR®**MODEL CAUA
INDOOR, VERTICAL (UPFLOW) SPLIT SYSTEM AIR HANDLER**

ANSI Z83.8a - Commercial/Industrial
CGA 2.6a - Commercial/Industrial

DESCRIPTION

Model CAUA vertical (upflow) split system can provide efficient heating, cooling and/or makeup air, with heating sizes ranging from 150 to 400 MBH and cooling capacities of 5 to 15 tons. Air flow volume can range between 1,600 to 6,580 cfm. The unit can be fueled by either natural gas or propane. It can be arranged for power-venting or separated combustion. A cased cooling coil is available with either a 1/3 - 2/3 or a 50/50 split circuitry. The 1/3 - 2/3 circuitry is compatible with the Reznor MASA condensing unit.

These units provide a conditioned environment using return and/or outside supply air. With the addition of the optional makeup air burner (Options AD4), Model CAUA can allow for up to 100% outside supply air. An optional mixing box can be installed on the rear of the unit to provide outside and return air dampers with controls including an economizer.

The top of the unit has a discharge opening with flanged duct connection. A screened discharge air plenum can be added for 2, 3 or 4 side air discharge. A high air velocity discharge plenum is available for use with cased cooling coil.

Model CAUA can be installed in a mechanical room or closet where conventional horizontal systems may not fit. **Most sizes will easily fit through a 3' doorway. The larger sizes will fit through double doors.** A single unit can be used for retail or light commercial applications instead of "twinning" residential units. Conversely, when the optional screened inlet base is coupled with the discharge air plenum, Model CAUA can be floor mounted in a large space and used as an effective air turnover (destratification) system.

The standard direct drive motor assembly is capable of handling up to 1" w.c. of external static pressure on all sizes. An optional belt drive motor is capable of handling up to 1.5" w.c. of external static pressure on sizes 150 and 200, and 2" WC on sizes 250-400.

Standard heating features include a tubular aluminized steel heat exchanger, a removable burner rack, and centrifugal blower(s). The burner rack is an assembly of inshot burners designed to provide controlled flame stability without lifting or flashback. Standard controls include a single-stage gas valve; direct spark ignition with 100% shutoff; a direct-drive blower motor; a power venter; a combustion air pressure switch; and a safety limit switch. Operation is controlled by an integrated circuit board that includes an LED diagnostic indicator light. The circuit board monitors heater operation and indicates normal operation as well as identifying any abnormalities in the control functions.

As a separated-combustion unit, combustion air is drawn from the outdoors and vented to the outdoors by using an approved vent/combustion air intake concentric adapter kit. As a power-vented unit, air for combustion is taken from the space where the heater is installed and vented outside using an optional vent cap.

Model CAUA Series units have a five (5)-year limited warranty against defective operating components and a ten (10)-year limited warranty on the heat exchanger. This equipment is design-certified by the Canadian Standards Association (CSA) for installation in the U.S. and Canada.

STANDARD FEATURES

- Orifices for natural gas
- Centrifugal blower
- Burner rack with inshot burners
- Direct ignition with 100% lockout
- Single-stage combination gas valve
- 230/1/60 supply voltage
- 230 volt, open/dripproof, direct-drive blower motor with internal overload protection
- Tubular aluminized steel heat exchanger
- High temperature limit control
- Pressure switch to verify vent flow
- Integrated circuit board with LED diagnostic indicator light
- 24-volt control voltage transformer
- Insulated indoor cabinet with pre-coat RAL 9001 white paint finish
- Vertical discharge outlet with duct flange
- Corner indicators to allow the installer to customize location of the return air opening (either rear, right side, left side, or bottom)
- Front service access
- Choice of power-vented, separated-combustion or power-vented only installation*

OPTIONAL FEATURES - Factory Installed

- Discharge plenum
- Orifices for propane gas
- Orifices for high altitude (2001-9000 ft)
- Tubular stainless steel heat exchanger
- Makeup air burner
- Two-stage combination gas valve
 - ◆ Two-stage with ductstat
- Adjustable belt drives for up to 2.0" ESP with open drip-proof or totally enclosed motors (motors meet EISA specifications for efficiency)
- 208 single phase supply voltage
- 208/230/460/575 three phase supply voltage
- Economizer controls

OPTIONAL FEATURES - Field Installed

- Model ACU cased cooling coil
 - ◆ R410A refrigerant
 - ◆ Cooling range from 60 to 180 MBH (5 to 15 tons)
 - ◆ Sizes 90 to 180 can be 1/3-2/3 or 50/50
 - ◆ 1/3 -2/3 circuits (compatible with Reznor MASA condensing unit)
- Horizontal or vertical concentric adapter combustion air/vent kit*
- Inlet air base
- Filter cabinet with 2" filters (assembly required)
- Mixing box with damper(s) with selection of actuators and controls with or without filters (factory-assembled)
- Vibration isolation pads
- Thermostat
- Thermostat guard
- Vent cap*
- Manual gas valve
- Gas conversion kits

TECHNICAL DATA

Model CAUA

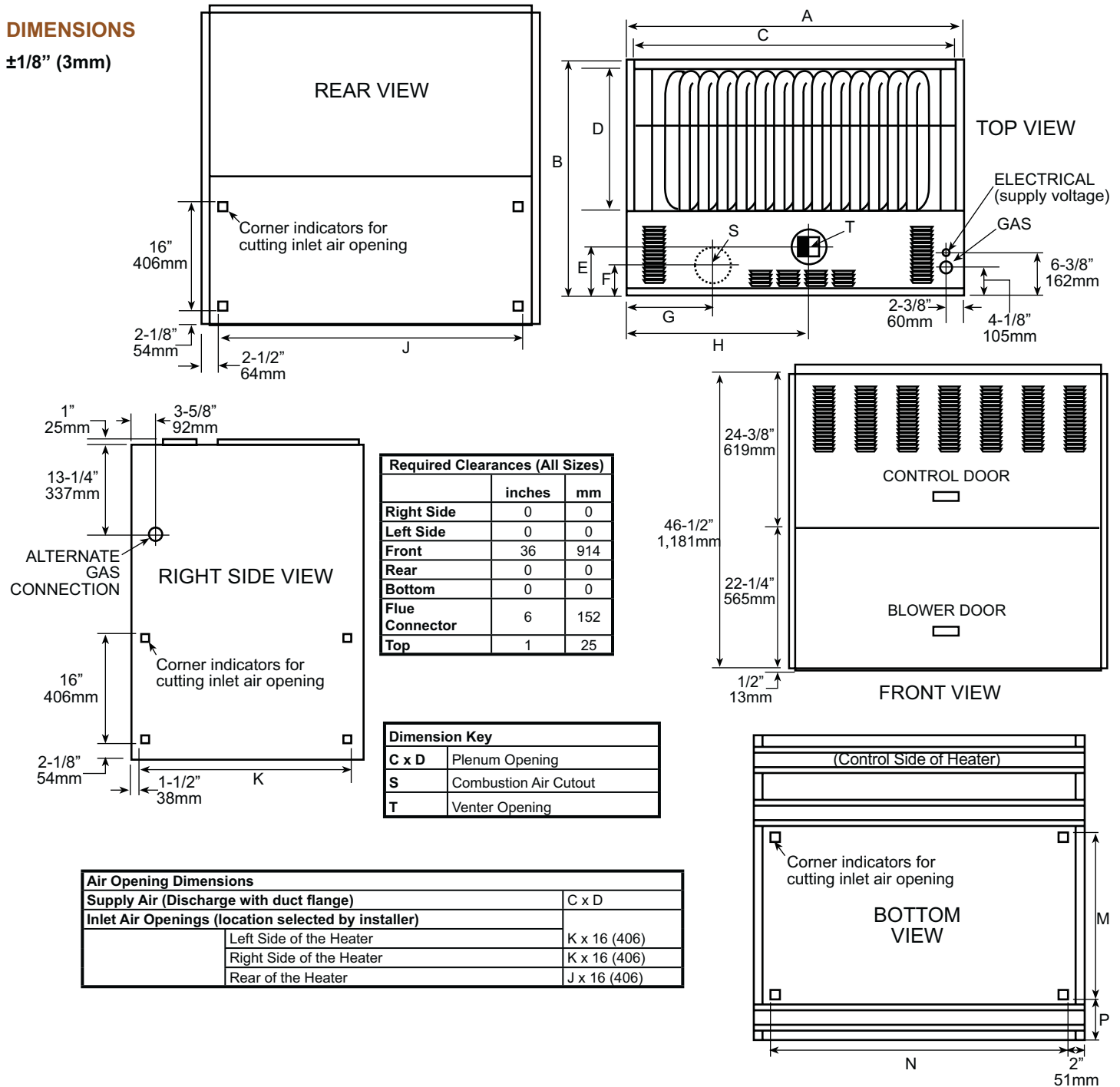
Size		150	200	250	300	350	400
BTUH Input	BTUH	150,000	200,000	250,000	300,000	350,000	400,000
	kW	44.0	58.6	73.3	87.9	102.6	117.2
BTUH Thermal Output (80%)	BTUH	120,000	160,000	200,000	240,000	280,000	320,000
	kW	35.2	46.9	58.6	70.3	82.1	93.8
Control Amps (24-volt)		0.9	0.9	1.1	1.1	1.1	1.1
Full-Load Amps (230V) @.6 ESP, 60°F Rise		6.2	6.6	12.7	13.1	13.6	13.8
Standard Motor (Quantity) HP		1	1	(2) 1	(2) 1	(2) 1	(2) 1
Standard Blower (Quantity) Size - inches		12x9	12x12	(2) 12x9	(2) 12x9	(2) 12x9	(2) 12x9
Air Volume @ 1.0" w.c. ESP	CFM	1,600-1,900	1,850-2,200	2,700-3,300	3,200-3,800	3,500-4,100	3,800-4,200
	m ³ /hr	2,718-3,228	3,143-3,738	4,587-5,607	5,437-6,456	5,946-6,966	6,456-7,136
Maximum CFM available with Optional Belt Drive only	CFM	2,465@1.5"	3,290@1.5"	4,115@1.8"	4,935@2.0"	5,760@2.0"	6,580@1.5"
	m ³ /hr	4,188@1.5"	5,590@1.5"	6,991@1.8"	8,385@2.0"	9,786@2.0"	11,179@1.5"
Vent Connection Diameter (inches)		5	5	5	6	6	6
Gas Connection (inches)	Natural Gas	1/2	1/2	3/4	3/4	3/4	3/4
	Propane Gas	1/2	1/2	1/2	1/2	1/2	1/2
Approximate Net Wt	lbs.	288	300	380	394	445	464
	kg	131	136	172	179	202	210
Approximate Shipping Wt	lbs.	355	366	463	477	560	575
	kg	161	166	210	216	254	261

***IF the heater is being installed as a separated-combustion power-vented unit, selection of either a horizontal or vertical concentric adapter combustion air/vent kit is required. Or, IF the heater is being installed as a power-vent only unit, a vent cap is required.**

NOTE: Adjusted pressure drop is external ductwork plus any specified options.

DIMENSIONS

±1/8" (3mm)



Size	A		B		C		D		E		F		G		H		J		K		M		N		P		S		T	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
150	38	965	34 3/4	883	36	914	21	533	7 1/4	184	3 3/4	95	12 1/2	318	24	610	33	838	31	787	19	483	34	864	4 5/8	117	5	127	5	127
200	38	965	34 3/4	883	36	914	21	533	7 1/4	184	3 3/4	95	12 1/2	318	24	610	33	838	31	787	19	483	34	864	4 5/8	117	5	127	5	127
250	50	1270	34 3/4	883	48	1219	21	533	7 1/4	184	4 3/8	111	12 3/4	324	27 1/4	692	45	1143	31	787	16	406	46	1,168	4 3/4	121	6	152	5	127
300	50	1270	34 3/4	883	48	1219	21	533	7 1/4	184	4 3/8	111	12 3/4	324	27 1/4	692	45	1143	31	787	16	406	46	1,168	4 3/4	121	6	152	6	152
350	50	1270	50	1270	48	1219	34	864	7	178	4 3/8	111	14 1/8	359	26 3/4	679	45	1143	44	1118	32	813	46	1,168	4 7/8	124	6	152	6	152
400	50	1270	50	1270	48	1219	34	864	7	178	4 3/8	111	14 1/8	359	26 3/4	679	45	1143	44	1118	32	813	46	1,168	4 7/8	124	6	152	6	152

WARNING: Gas-fired appliances are not designed for use in hazardous atmospheres containing flammable vapors or combustible dust, or atmospheres containing chlorinated or halogenated hydrocarbons.

Installations in public garages or airplane hangars are permitted when in accordance with ANSI Z223.1 and NFPA 54 Codes or CAN1-B149 Codes and enforcing authorities.

STATIC PRESSURE DROPS (inches w.c.)

Size	CFM	Small Filter Cab		Side Filter Cab		Rear Filert Cab		Base Filter Cabinet			Mixing Box			Cooling Coil (ACUA)						Duct-work	Total Static Pressure
		CW8	CW9	CW4	CW5	CW7	CW12	CW14	CW15	CW13	AW11	AW9	GA4-9	060		072		090			
		Pleat	Perm	Pleat	Perm	Pleat	Perm	Pleat	Perm	TA	Pleat	Perm	Dampers	Wet	Dry	Wet	Dry	Wet	Dry		
150	1,480	.13	.06	.08	.03	.08	.03	.05	.02	.02	.07	.03	.01	■	■	■	■	■	■		
	1,750	.17	.08	.10	.05	.10	.05	.07	.03	.03	.09	.04	.01	.09	.06	.11	.07	■	■		
	2,000	.20	.11	.13	.07	.13	.07	.09	.05	.04	.12	.06	.02	.10	.07	.13	.09	.12	.09		
	2,250	.24	.13	.16	.08	.16	.08	.11	.05	.04	.14	.07	.02	.13	.09	.16	.11	.15	.11		
	2,450	.28	.15	.19	.09	.19	.09	.13	.06	.05	.17	.08	.03	.14	.11	.17	.13	.16	.13		
200	1,975	.20	.09	.13	.06	.13	.06	.09	.04	.03	.12	.05	.02	.10	.07	.13	.09	.12	.09		
	2,250	.24	.13	.16	.08	.16	.08	.11	.05	.04	.14	.07	.02	.13	.09	.16	.11	.15	.11		
	2,750	.33	.19	.22	.11	.22	.11	.15	.07	.06	.20	.10	.04	.17	.14	.21	.17	.20	.17		
	3,000	■	.22	.27	.13	.27	.13	.18	.09	.07	.24	.12	.05	.20	.17	.25	.21	.23	.20		
	3,290	■	■	.29	.15	.29	.15	.19	.10	.08	.26	.13	.06	.23	.20	.26	.24	.27	.23		

Size	CFM	Small Filter Cab		Side Filter Cab		Rear Filert Cab		Base Filter Cabinet			Mixing Box			Cooling Coil (ACUB)						Duct-work	Total Static Pressure
		CW8	CW9	CW4	CW5	CW7	CW12	CW14	CW15	CW13	AW11	AW9	GA4-9	090		120		150			
		Pleat	Perm	Pleat	Perm	Pleat	Perm	Pleat	Perm	TA	Pleat	Perm	Dampers	Wet	Dry	Wet	Dry	Wet	Dry		
250	2,645	■	■	.21	.11	.10	.05	.08	.04	.03	.10	.05	.01	.07	.03	.11	.07	■	■		
	3,000	■	■	.25	.13	.13	.07	.10	.05	.04	.13	.07	.02	.10	.06	.15	.11	.15	.10		
	3,250	■	■	.29	.15	.15	.08	.11	.06	.05	.15	.08	.02	.12	.08	.19	.15	.19	.14		
	3,500	■	■	.33	.17	.18	.09	.14	.07	.05	.18	.09	.03	.14	.09	.22	.17	.22	.16		
	4,000	■	■	■	.22	.23	.11	.17	.08	.07	.23	.11	.04	.15	.11	.24	.20	.23	.18		
	4,115	■	■	■	■	.24	.12	.18	.09	.07	.24	.12	.04	.16	.12	.25	.21	.24	.19		
300	2,960	■	■	.26	.13	.13	.06	.10	.05	.04	.13	.06	.02	.10	.06	.15	.11	.15	.10		
	3,250	■	■	.29	.15	.15	.08	.11	.06	.05	.15	.08	.02	.12	.08	.19	.15	.19	.14		
	3,500	■	■	.33	.17	.18	.09	.14	.07	.05	.18	.09	.03	.14	.09	.22	.17	.22	.16		
	4,000	■	■	■	.22	.23	.11	.17	.08	.07	.23	.11	.04	.15	.11	.24	.20	.23	.18		
	4,500	■	■	■	■	.28	.13	.21	.10	.08	.28	.13	.05	.18	.14	.29	.25	.29	.24		
	4,935	■	■	■	■	.31	.15	.23	.11	.09	.31	.15	.06	.22	.18	.35	.31	.34	.29		

Size	CFM	Small Filter Cab		Side Filter Cab		Rear Filert Cab		Base Filter Cabinet			Mixing Box			Cooling Coil (ACUC)						Duct-work	Total Static Pressure
		CW8	CW9	CW4	CW5	CW7	CW12	CW14	CW15	CW13	AW11	AW9	GA4-9	120		150		180			
		Pleat	Perm	Pleat	Perm	Pleat	Perm	Pleat	Perm	TA	Pleat	Perm	Dampers	Wet	Dry	Wet	Dry	Wet	Dry		
350	3,455	■	■	.18	.08	.18	.08	.09	.04	.03	.18	.08	.03	.10	.07	.13	.09	.11	.08		
	4,000	■	■	.23	.11	.23	.11	.12	.06	.04	.23	.11	.04	.11	.08	.15	.11	.13	.10		
	4,500	■	■	.28	.13	.28	.13	.14	.07	.05	.28	.13	.05	.13	.10	.18	.14	.16	.13		
	5,000	■	■	.30	.16	.30	.16	.15	.08	.06	.30	.16	.06	.16	.13	.22	.18	.18	.15		
	5,500	■	■	■	.19	■	.19	.19	.10	.08	■	.19	.07	.18	.15	.25	.21	.21	.18		
	5,760	■	■	■	.21	■	.21	.22	.11	.08	■	.21	.08	.20	.17	.29	.25	.23	.21		
400	3,950	■	■	.21	.09	.21	.09	.11	.05	.04	.21	.09	.04	.11	.08	.15	.11	.13	.10		
	4,500	■	■	.28	.13	.28	.13	.14	.07	.05	.28	.13	.05	.13	.10	.18	.14	.16	.13		
	5,000	■	■	.30	.16	.30	.16	.15	.08	.06	.30	.16	.06	.16	.13	.22	.18	.18	.15		
	5,500	■	■	■	.19	■	.19	.19	.10	.08	■	.19	.07	.18	.15	.25	.21	.21	.18		
	6,000	■	■	■	.22	■	.22	.22	.11	.09	■	.22	.09	.21	.18	.31	.27	.25	.22		
	6,580	■	■	■	.24	■	.24	.24	.12	.10	■	.24	.10	■	■	■	■	■	■		

NOTE: If options are selected, the static pressure for those options must be added to the external static pressure to arrive at total static pressure.

Vertical Unit - Model CAUA



AIR DELIVERY - CFM

Standard Unit with Direct Drive Blower(s) - Option DR1

Standard Air Conditions

Factory Settings:

- Heating - medium speed
- Optional Cooling - high speed

Standard Components:		
Size	Blower(s)	Motor(s)
150	12-9	1HP
200	12-12	1HP
250-300	(2)12-9	(2)1HP
350-400		

UNIT SIZE	SPEED	ADJUSTED STATIC PRESSURE ("w.c.)				
		0.2	0.4	0.6	0.8	1.0
150	High	--	2400	2300	2100	1900
	Medium	1950	1900	1850	1800	1700
	Low	1850	1800	1750	1700	1600
200	High	--	2800	2700	2500	2200
	Medium	2300	2250	2200	2150	2000
	Low	2150	2100	2050	2000	1850
250	High	--	4400	3900	3600	3300
	Medium	3700	3600	3450	3250	3000
	Low	3250	3200	3100	3000	2700
300	High	--	4450	4400	4100	3800
	Medium	3900	3700	3600	3500	3200
350	High	--	5000	4700	4500	4100
	Medium	4300	4200	4000	3900	3700
	Low	4200	4000	3900	3700	3500
400	High	--	5100	4800	4500	4200
	Medium	4400	4300	4300	4000	3800

NOTE: If options are selected, the static pressure for those options must be added to the external static pressure to arrive at total static pressure.

Motor/Horsepower/Voltage Selection and Starter Requirement Chart

Unit with Belt Drive Blower Motor - Option DR2

Motor	Option No.	Voltage		208/1/60	230/1/60	208/3/60	230/3/60	460/3/60	575/3/60
		HP	RPM	AK2	AK3	AK5	AK6	AK7	AK8
Open Dripproof Motor for Belt Drive	AL3	1/3	1,725	X ^A	X ^A	X ^{A,D}	X ^{A,D}	X ^{A,D}	N/A
	AL4	1/2	1,725	X	X	X	X	X	N/A
	AL5	3/4	1,725	X	X	X	X	X	N/A
	AL6	1	1,725	X	X	X	X	X	X ^D
	AL7	1 1/2	1,725	X	X	X	X	X	X ^D
	AL8	2	1,725	X ^D	X ^D	X	X	X	X ^D
	AL9	3	3,600	X ^{B,D}	X ^{B,D}	X ^B	X ^B	X ^B	X ^{B,D}
Totally Enclosed Motor for Belt Drive	AL10	5	3,600	X ^{C,D}	X ^{C,D}	X ^{C,D}	X ^{C,D}	X ^{C,D}	X ^{C,D}
	AL20	1/3	1,725	X	X	X ^D	X ^D	X ^D	N/A
	AL21	1/2	1,725	X	X	X	X	X	X ^D
	AL22	3/4	1,725	X	X	X	X	X	X ^D
	AL23	1	1,725	N/A	X	X	X	X	X ^D
	AL24	2	1,725	X	X	X	X	X	X ^D
	AL25	2	1,725	N/A	X ^D	X ^D	X ^D	X ^D	X ^D
AL26	3	3,600	N/A	X ^{B,D}	X ^{B,D}	X ^{B,D}	X ^{B,D}	X ^{B,D}	
Premium Efficiency Motor for Belt Drive	AL27	5	3,600	N/A	X ^{B,D}	X ^{B,D}	X ^{B,D}	X ^{B,D}	X ^{B,D}
	AL36	1	1,800	N/A	N/A	X ^D	X ^D	X ^D	X ^D
	AL37	1 1/2	1,800	N/A	N/A	X ^D	X ^D	X ^D	X ^D
	AL38	2	1,800	N/A	N/A	X ^D	X ^D	X ^D	X ^D
AL39	3	1,800	N/A	N/A	X ^{B,D}	X ^{B,D}	X ^{B,D}	X ^{B,D}	X ^{B,D}
	AL40	5	1,800	N/A	N/A	X ^{C,D}	X ^{C,D}	X ^{C,D}	X ^{C,D}

^A Sizes 150-300 only.
^B Sizes 250-400 only.
^C Sizes 300-400 only.
^D Require Motor Starter (Reznor Option AN10)

BASE UNIT OPTIONS

RATING PLATE

STD - U.S. installation
CGA - Canadian Installation

POWER

AK2 - 208/1
AK3 - 230/1
AK5 - 208/3
AK6 - 230/3
AK7 - 460/3
AK8 - 575/3

HEATING OPTIONS

AA1 - Natural gas
AA2 - Propane
AB1-8 - System elevation adjustment
AC1 - Aluminized steel
AC2 - 409 stainless steel heat exchanger
AD4 - Stainless steel burner with drain (for makeup air application)
CC1 - Vent cap
CC2 - Concentric adapter vertical vent terminal kit
CC6 - Concentric adapter horizontal vent terminal kit

CONTROL & SENSOR OPTIONS

AG1 - Single stage space thermostat gas control
AG2 - Two stage space thermostat gas control
AG3 - Two stage duct stat control
BE4 - Froststat

BLOWER SYSTEM OPTIONS

AL3-8 - Open dripproof motors, 1/3 hp thru 2 hp
AL20-25 - Totally enclosed motors 1/3 hp thru 2 hp
DR1 - Direct drive
DR2 - Belt drive
PC4 - Vibration isolation mounted under unit

AIR INTAKE DAMPER & AIR OPTIONS

GB2 - 2-Position damper motor (open/close)
GB3-4 - Modulating damper motor
GC3C - Cooling mode 2-position damper control
GC4 - 2-Position damper control for warm up/cool down return air thermostat
GC1A - Manual or minimum outside air potentiometer (used with mixing box)
GC1B - Manual or minimum outside air potentiometer for remote installation
GC3A - Heating mode DB mixed air controller
GC3B - Cooling mode dual reference proportional enthalpy control including heating mode mixed air control

FILTER CABINET OPTIONS

AIR INTAKE & FILTER OPTIONS

CW4 - Filter cabinet, right or left side mounted, with 2" pleated filters
CW5 - Filter cabinet, right or left side mounted, with 2" permanent filters
CW6 - Filter cabinet, right or left side mounted, without filters
CW7 - Filter cabinet, rear mounted, with 2" pleated filters
CW8 - Filter cabinet, right or left side mounted, with 2" pleated filters
CW9 - Filter cabinet, right or left side mounted, with 2" permanent filters
CW10 - Filter cabinet, right or left side mounted, without filters
CW11 - Filter cabinet, rear mounted, without filters
CW12 - Filter cabinet, rear mounted, with 2" permanent filters
CW13 - Filter cabinet base, with 2" disposable filters
CW14 - Filter cabinet base, with 2" pleated filters
CW15 - Filter cabinet base, with 2" permanent filters
CW16 - Filter cabinet base, without filters

MOUNTING BASE OPTIONS

AIR INTAKE OPTIONS

AVA2 - Screened inlet base
AWC1 - 1" Disposable filters
AWC4 - 1" Permanent filters
AWC6 - 1" Pleated filters

MIXING BOX OPTIONS

FILTER OPTIONS

AW9 - Filter rack with 2" permanent filters
AW11 - Filter rack with 2" pleated disposable filters

AIR INTAKE & DAMPER OPTIONS

GA1 - Top outside air opening with dampers/rear or bottom return air opening without dampers
GA2 - Rear outside air opening with dampers/top or bottom return air opening without dampers
GA3 - Bottom outside air opening with dampers/top or bottom return air opening without dampers
GA4 - Bottom outside air opening with dampers/rear return air opening with dampers
GA5 - Bottom outside air opening with dampers/top return air opening with dampers
GA6 - Rear outside air opening with dampers/top return air opening with dampers
GA7 - Rear outside air opening with dampers/bottom return air opening with dampers
GA8 - Top outside air opening with dampers/rear return air opening with dampers
GA9 - Top outside air opening with dampers/bottom return air opening with dampers

CASED COOLING COIL MODULE OPTIONS

DX COOLING OPTIONS

ACUA - 5 - 7.5 ton cased cooling coil and cabinet (CAUA 150-200)
ACUB - 7.5 - 12.5 ton cased cooling coil and cabinet (CAUA 250-300)
ACUC - 10 - 15 ton cased cooling coil and cabinet (CAUA 350-400)
AUD1 - Single condenser circuit (5 - 6 ton units)
AUD2 - Dual 50-50 condenser circuits (7.5 - 15 ton units)
AUD3 - Dual 1/3 - 2/3 condenser circuits (all sizes except 6 ton units)

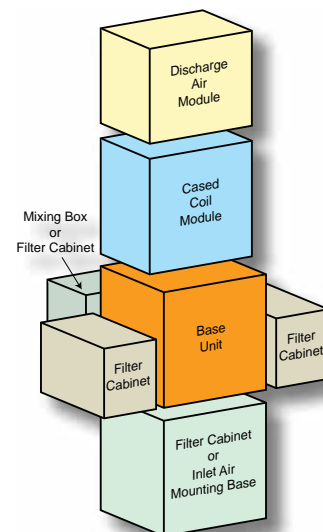
DISCHARGE AIR MODULE OPTIONS

DISCHARGE AIR OPTIONS

CD60 - Screened discharge plenum open on all four sides
CD61 - Screened discharge plenum with blockoff plates for 2 or 3 side discharge
CD62 - Screened discharge plenum for high velocity discharge

OTHER OPTIONS

Relays
Remote switches
Thermostats

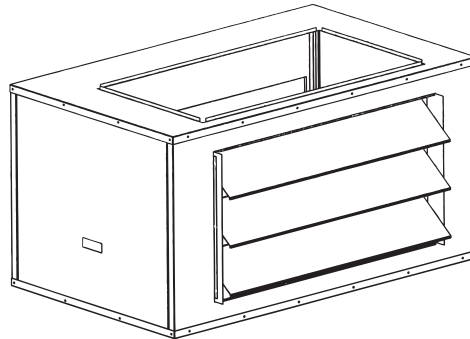




INLET AIR OPTIONS

OPTIONAL RETURN AND OUTSIDE AIR MIXING BOX WITH OR WITHOUT FILTERS AND RETURN AIR FILTER CABINET

OPTIONAL MIXING BOX



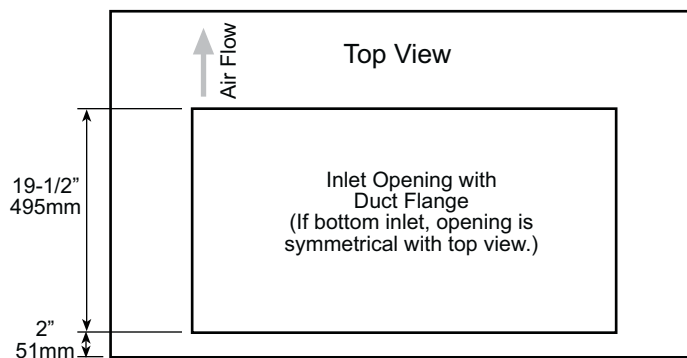
DESCRIPTION

The optional mixing box for the Reznor® Model CAUA heater is designed to provide the system with an inlet air mixture of return air and outside air. It is available in an assortment of configurations with a selection of damper controls. The mixing box is completely assembled at the factory and shipped with the unit for field attachment to the rear of a Model CAUA heater.

Dampers have vinyl blade strips and stainless steel jamb seals rated at 10 CFM/sq ft leakage at 2.0" pressure differential. Any percentage of outside air can be supplied to the unit.

All mixing box inlet air openings have duct flanges for attaching ductwork. Removable door panels provide access to damper controls and filters from either end of the cabinet (filters are optional).

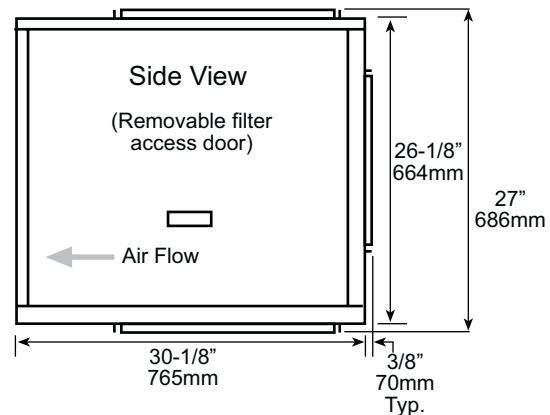
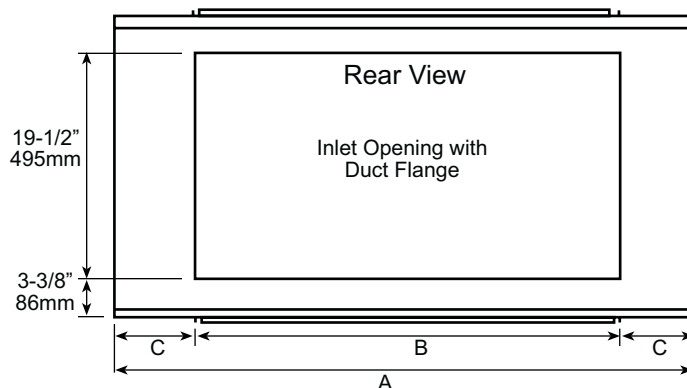
Vertical Unit - Model CAUA

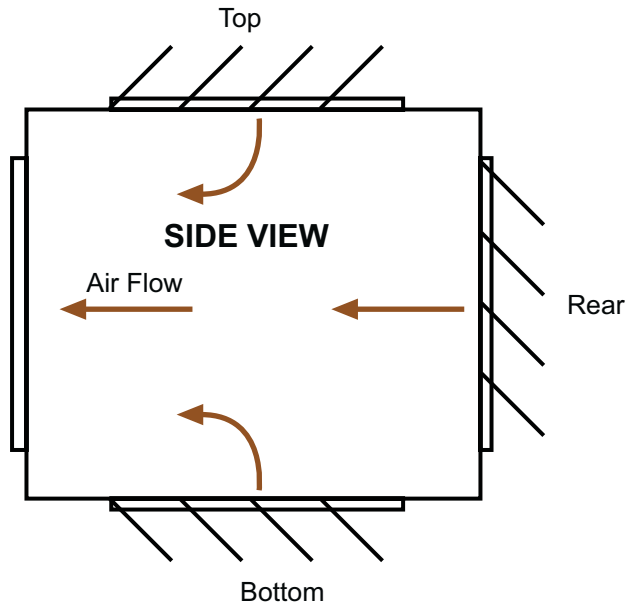


Mixing Box Dimensions (inches ± 1/8"; millimeters ± 3mm)

Size	150-200		250-400	
	in.	mm	in.	mm
A	38	965	50	1,270
B	22 3/4	578	36 1/2	927
C	7 5/8	194	6 3/4	171

Note: Damper frame fits in the inlet opening.





Option No.	Outside Air Opening/ Dampers	Return Air Opening	Return Air Dampers
GA1	Top	Bottom or Rear*	N/A
GA2	Rear	Top or Bottom*	N/A
GA3	Bottom	Top or Rear*	N/A
GA4	Bottom	Rear	Rear
GA5	Bottom	Top	Top
GA6	Rear	Top	Top
GA7	Rear	Bottom	Bottom
GA8	Top	Rear	Rear
GA9	Top	Bottom	Bottom

*Mixing box is shipped with one of these sides capped and the other open. To adapt to the installation, the cap may be moved in the field.

CAUA Size	Ship Weight (lbs.)	
	GA1-GA3	GA4-GA9
150-200	155	175
250-400	195	230

Damper Controls

In all cases when the unit shuts down, the outside air damper closes.

Description

MOTORS	
Option	Description
GB2	2-position damper motor
GB3	Modulating damper motor
GB4	Modulating damper motor for use with proportional enthalpy control only
CONTROLS	
Option	Description
GC1A	Potentiometer on mixing box
GC1B	Remotely located potentiometer
GC3A	Mixed air temperature controller, heating only
GC3B	Dual setpoint modulating enthalpy control for heating and cooling, use with GB4 only
GC3C	2-position enthalpy control to use with 2-position damper motor, cooling only
GC4	Senses return air temperature to delay opening of outside air damper providing warm up or cool down time

Control Matrix

Mixing Box Options	Actuator	Control(s)			
GA1, GA2, GA3	Outside Air Damper only	GB2	None (std)		
			GC3C		
			GC3C	GC4	
GA4, GA5, GA6, GA7, GA8, GA9	Both Outside Air and Return Air Dampers	GB2	None (std)		
			GC3C		
			GC3C	GC4	
		GB3	GC1A		
			GC1A	GC3A	
			GC1A	GC4	
			GC1A	GC3A	GC4
			GC1B		
			GC1B	GC3A	
			GC1B	GC4	
			GC1B	GC3A	GC4
GC3A					
GC3A	GC4				
GB4	GC3B				
	GC3B	GC4			

Damper Controls (cont'd)

Mixing Box Option	Motor Option	Control Option(s)	Description	Operating Mode	Application
GA1, GA2, GA3, GA4, GA5, GA6, GA7, GA8, and GA9	GB2	None	2-Position Damper Motor	Heating only or Heating and Cooling	When the unit is operating, the outside air damper is open.
		GC3C	2-Position Damper Motor with 2-Position Enthalpy Control	Cooling only	To minimize cooling energy consumption and equipment cycling, when the sensor detects a low enthalpy (heat content in a lb of air) in the outside air, the control will open the outside air damper. When the control senses a high enthalpy in the outside air, the control will close the outside air damper. Factory setpoint for opening the outside air damper is 75°F/40% humidity.
		GC3C and GC4			Same as above (GC3C only) plus a delay based on return air temperature. Control delays the opening of the outside air damper to provide faster cool down of the supply air.
GA4, GA5, GA6, GA7, GA8, and GA9	GB3	GC1A or GC1B	Modulating Damper Motor with Manual Potentiometer Mounted in the Mixing Box (GC1A) or Remote (GC1B)	Heating only or Heating and Cooling	To control mixture of inlet air, manually set the potentiometer to the desired minimum position of the outside air damper.
		GC1A or GC1B with GC3A			Same as above (GC1A or GC1B only) plus in heating mode the dampers are modulated in response to a control sensing the mixed inlet air temperature. The adjustable control has a range of 0-100°F; factory setpoint is 35°F.
		GC1A or GC1B with GC4			Same as above (GC1A or GC1B only) plus a delay based on return air temperature. Control delays the opening of the outside air damper to provide faster cool down (cooling mode) or warm up (heating mode) of the supply air.
		GC1A or GC1B with both GC3A and GC4			Includes all of the control functions listed in this section - a potentiometer (GC1A or GC1B) with both the mixed air controller (GC3A) and the delay (GC4).
	GC3A	Modulating Damper Motor with Mixed Air Controller	Heating only	Dampers are modulated in response to a control sensing the mixed inlet air temperature. The adjustable control has a range of 0-100°F; factory setpoint is 35°F.	
				Above plus a delay based on return air temperature. Control delays the opening of the outside air damper to provide faster warm up of the supply air.	
GB4	GC3B	Modulating Damper Motor with a Logic Module and Dual Setpoint Modulating Enthalpy Control	Cooling and Heating	In cooling mode, damper modulation is controlled by a modulating enthalpy control. With one sensor measuring the enthalpy of the outside air and another sensing the return air, dampers will modulate in response to the control to maintain the most economic mix in the inlet air (normally set to maintain between 50-56°F). With two enthalpy setpoints, damper operation can be interlocked with a time clock or other device to provide different mix depending on occupancy or other determining factor. In the heating mode, damper modulation is controlled by a mixed air temperature sensor.	
				GC3B and GC4	Above (GC3B only) plus a delay based on return air temperature. Control delays the opening of the outside air damper to provide faster cool down (cooling mode) or warm up (heating mode) of the supply air.

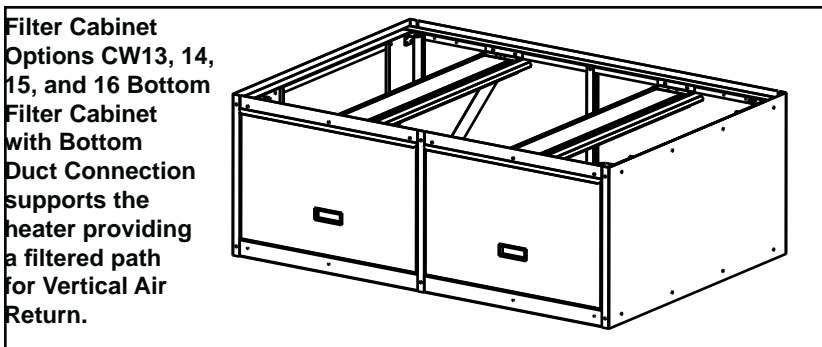
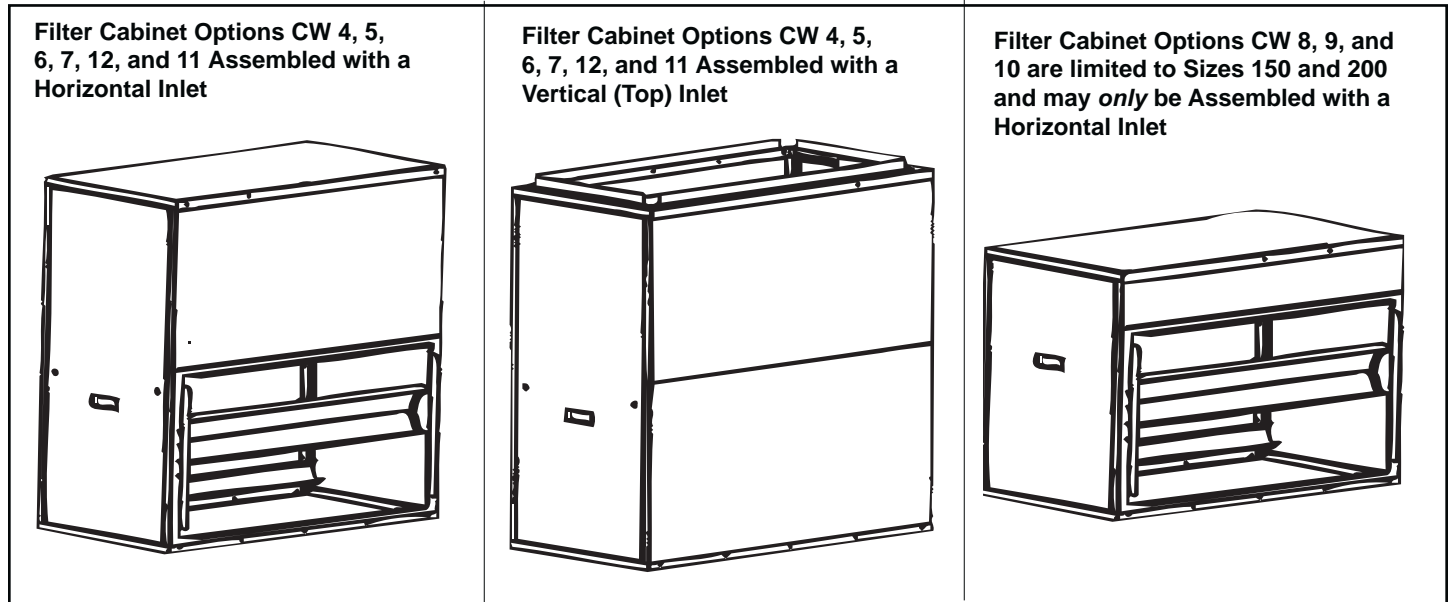
Vertical Unit - Model CAUA

Description

Return air filter cabinets for Reznor® Model CAUA packaged heating systems are shipped separately for field assembly and installation. Illustrated step-by-step assembly instructions are included. Cabinets are available with 2" permanent filters, 2" pleated filters, or with a filter rack for field-supplied 2" permanent or 2" pleated filters.

The cabinet in Options CW 4, 5, and 6 attaches to the heater on the right or left side. The cabinet in Options CW 7, 12, and 11 attaches to the rear of the heater. The cabinet in Options CW 8, 9, and 10 is smaller and attaches to either the right side, the left side, or rear of the heater.

The larger cabinets (Options CW 4, 5, 6, 7, 12, 11) are uniquely designed so that the one package can be field assembled with the air inlet duct opening on either the top (vertical inlet) or on the rear (horizontal inlet). Options CW 8, 9 and 10 are limited to CAUA Sizes 150 and 200 and may be assembled with a horizontal inlet only. All cabinets have a filter access door panel which may be installed on either end.



Replacement Filters

When filters need replacing, use the following sizes:

CAUA Size	150-200		250-400	
Filter Type/Size	Qty	P/N	Qty	P/N
2" Pleated, Disposable				
16 x 16	2	104109	6	104109
16 x 20	2	104110	--	--
2" Permanent, Aluminum				
16 x 16	2	104103	6	104103
16 x 20	2	101620	--	--

Model CAUA Applications ("X" = available; "--" = not available or not for use at specified air volume)

Type of 2" Filters Included	Option Code	Filter Cabinet Description	Air Volume CFM m³/hr	CAUA Size															
				150		200		250		300		350		400					
				1,800	2,400	3,000	2,400	3,000	3,000	4,000	5,000	3,000	4,000	5,000	4,300	5,000	6,000*	4,300	5,000
Pleated	CW4	Filter cabinet attaches to the right or left side of the heater	X	X	X	X	X	X	--	--	X	--	--	X	X	--	X	X	--
Permanent	CW5		X	X	X	X	X	X	X	--	X	X	--	X	X	X	X	X	X
Field-Supplied	CW6		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Pleated	CW7	Filter cabinet attaches to the rear of the heater	X	X	X	X	X	X	X	X	X	X	X	X	X	--	X	X	--
Permanent	CW12		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Field-Supplied	CW11		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Pleated	CW8	Filter cabinet attaches on either side or the rear of size 150/200 heater	X	X	--	X	--	--	--	--	--	--	--	--	--	--	--	--	--
Permanent	CW9		X	X	X	X	X	--	--	--	--	--	--	--	--	--	--	--	--
Field-Supplied	CW10		X	X	X	X	X	--	--	--	--	--	--	--	--	--	--	--	--
Disposable	CW13	Filter base cabinet under unit with bottom return air opening and front filter access.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Pleated	CW14		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Permanent	CW15		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Field-Supplied	CW16		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

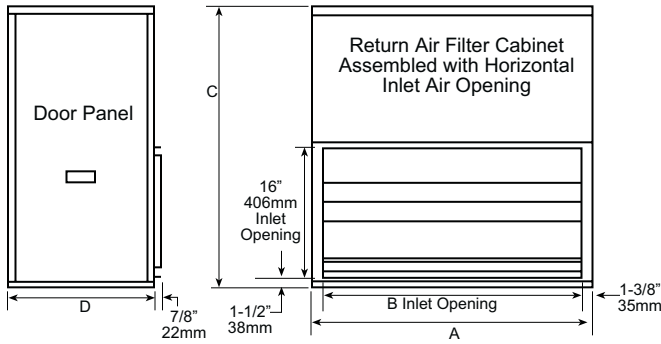
*For these Size/Air Volume combinations, do not install one cabinet on the side of the heater. Two Option CW4, CW5 or CW6 cabinets may be installed (one on each side) or select a CW7, CW12 or CW11 for rear installation.

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INLET AIR OPTIONS (cont'd)

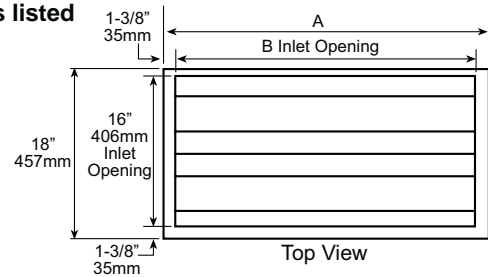
Return Air Filter Cabinet Dimensions Return Air Filter Cabinet Installed with a Horizontal Inlet
 - Applies to all options as listed

Dimensions (± 1/8" or ±3mm)



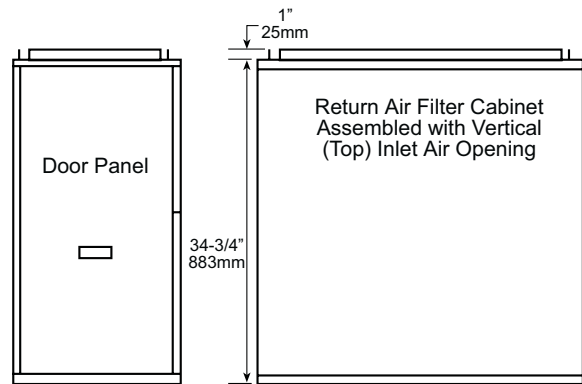
Size	Option CW	A		B		C		D	
		in.	mm	in.	mm	in.	mm	in.	mm
150/200	4, 5, 6, 7, 12, 11	34 3/4	883	32	813	34 3/4	883	18	457
	8, 9, 10	34 3/4	883	32	813	21 1/8	537	12 1/2	318
250/300	4, 5, 6	34 3/4	883	32	813	34 3/4	883	18	457
	7, 12, 11	47 3/4	1,213	45 1/8	1,146	34 3/4	883	18	457
350/400	4, 5, 6, 7, 12, 11	47 3/4	1,213	45 1/8	1,146	34 3/4	883	18	457

Return Air Filter Cabinet Installed with a Vertical Inlet - Applies to options as listed

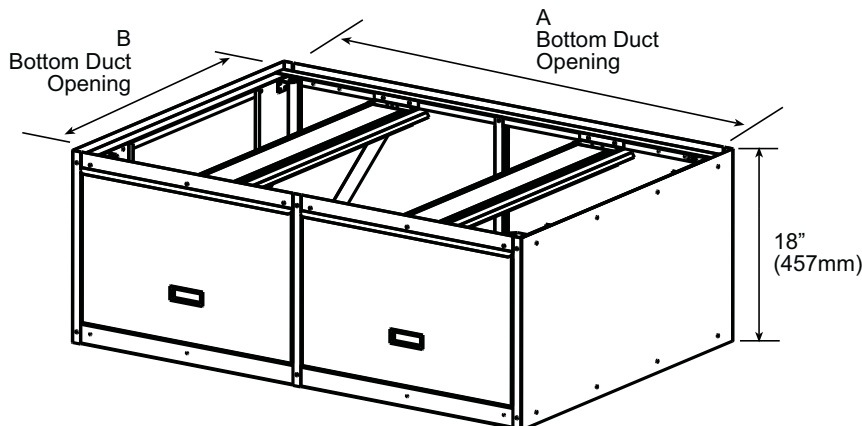


Dimensions (± 1/8" or ±3mm)

Size	Opt CW	A		B	
		in.	mm	in.	mm
150/200	4, 5, 6, 7, 12, 11	34 3/4	883	32	813
250/300	4, 5, 6	34 3/4	883	32	813
	7, 12, 11	47 3/4	1,213	45 1/8	1,146
350/400	4, 5, 6, 7, 12, 11	47 3/4	1,213	45 1/8	1,146



Return Air Bottom Filter Cabinet Installed with a Vertical Inlet - Applies to options CW13, 14, 15, and 16



Dimensions (± 1/8" or ±3mm)

Size	A		B	
	inches	mm	inches	mm
150	25-1/2	648	32	813
200	25-1/2	648	32	813
250	37-1/2	953	32	813
300	37-1/2	953	32	813
350	37-1/2	953	46	1168
400	37-1/2	953	46	1168

Vertical Unit - Model CAUA



INLET AIR MOUNTING BASE WITH DISCHARGE PLENUM OPTIONAL INLET AIR BASE WITH AND WITHOUT FILTERS AND SCREENED DISCHARGE AIR PLENUM (Applies to Model CAUA 350 and 400 only)



- Screened Discharge Plenum**
 - Option CD60 - with Screened Openings on All Four Sides
 - Option CD61 - with Blockoff Plates for 2 or 3 Sided Discharge (blockoff plates are field installed)
 - Option CD62 - with Blockoff Plates for use with Model ACUC Cased Air Conditioning Coil **only**
- Model CAUA 350 or CAUA 400 Power-Vented or Separated-Combustion Upflow Heater**
- Inlet Air Mounting Base with Guarded Openings, Option AVA2**
 - with Option AWC1, 1" Disposable Flat Filters
 - with Option AWC4, 1" Permanent Aluminum Filters
 - with Option AWC6, 1" Pleated Disposable Filters

DESCRIPTION

As illustrated above, *when used together*, the optional inlet air base and discharge plenum change the Model CAUA upflow "ductable heating system" into an upflow "unit heater" or an "air turnover unit". Add the Model ACUC cased cooling coil, and it becomes a heating/cooling unit. The airflow through the upflow system is engineered to circulate the air in the building. When used in an air turnover application, an optional two-stage valve will provide the recommended lower temperature rise.

Or if used separately, the optional inlet air base can be installed on a Model CAUA 350 or 400 with discharge ductwork, or the screened discharge plenum can be used with an optional filter cabinet or mixing box.

The inlet air base and the Options CD60 and CD61 plenum are shipped separately for field installation. If a Model ACUC cased coil is ordered with a discharge plenum (Option CD62), the plenum is factory-installed on the cooling section. If the base is ordered with optional filters, the filters are installed at the factory.

- Discharge plenum and inlet air base are designed to match Model CAUA to create a packaged "stand alone" upflow system
- Heating or heating/cooling applications (cooling when equipped with Model ACUC cased cooling coil)
- Upflow system is engineered to circulate room air
- Adaptable for next-to-wall location
- Base has adjustable legs
- Base is available with easily removable filters (1" flat disposable, 1" permanent, or 1" pleated disposable)

FEATURES OF BASE-MOUNTED MODEL CAUA WITH DISCHARGE PLENUM

TECHNICAL DATA - Base-Mounted Model CAUA with Discharge Plenum

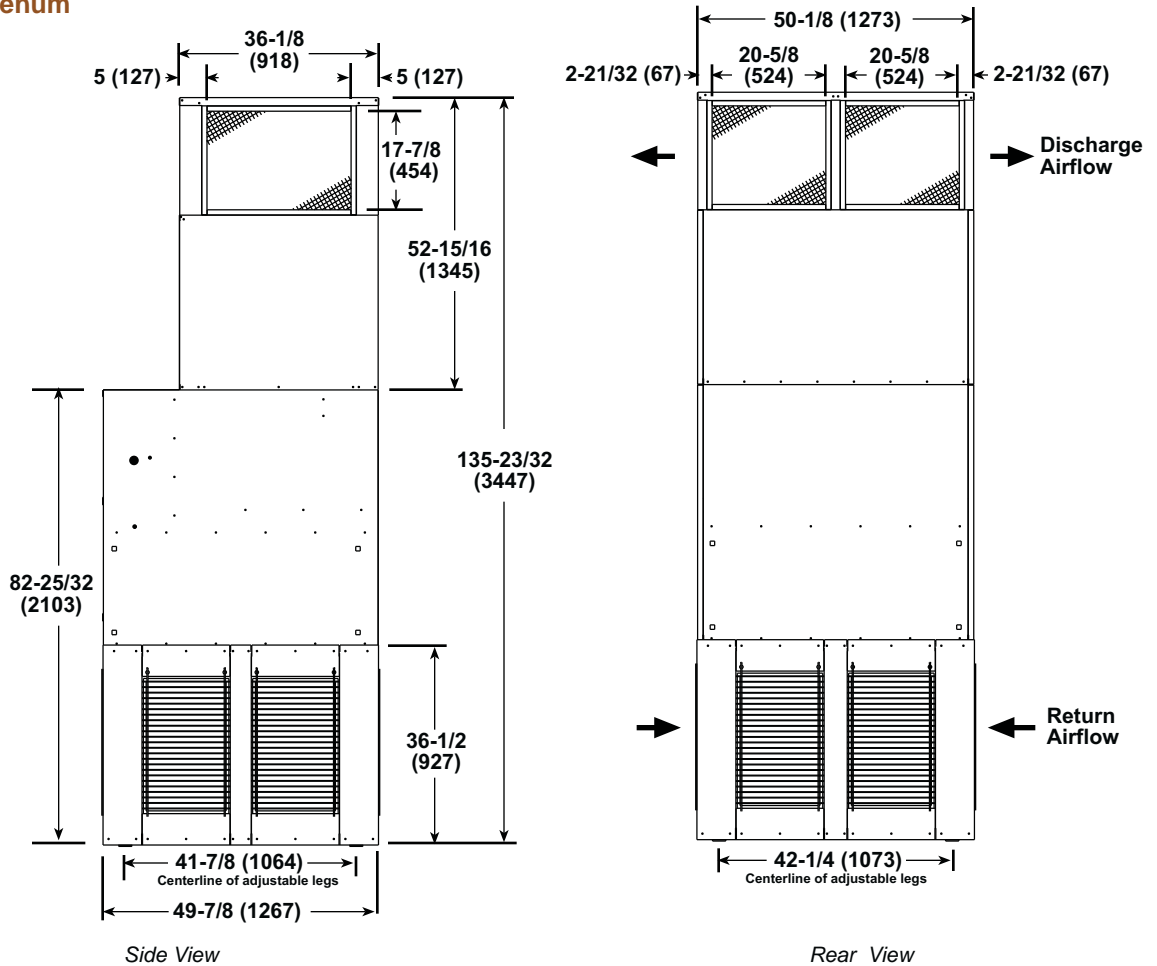
Model CAUA Size			350	400
Air Volume Range with Optional Belt Drive		cfm	4,320 - 5,760	4,935 - 6,580
		m ³ /hr	7,339 - 9,786	8,384 - 11,179
Gas Connection (inches)	Natural Gas		3/4	3/4
	Propane Gas		1/2	1/2
Approximate Wt of the Inlet Base Option AVA2 (with or without filters)	Net	lbs.	125	125
		kg	57	57
	Shipping	lbs.	175	175
		kg	79	79
Approximate Wt of Discharge Plenum Options CD60 and CD61	Net	lbs.	156	156
		kg	71	71
	Shipping	lbs.	220	220
		kg	100	100
Approximate Wt (lbs) of Discharge Plenum Option CD62 (add to weight of ACUC)	Net	lbs.	89	89
		kg	40	40
	Shipping	lbs.	130	130
		kg	59	59

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BASE-MOUNTED MODEL CAUA WITH DISCHARGE PLENUM (cont'd)

DIMENSIONS

(inches and mm) - Model CAUA 350 and CAUA 400 with Optional Air Inlet Mounting Base and Discharge Plenum



HEIGHT NOTE: When Option CD62 and a Model ACUC cased cooling coil are ordered, the plenum height of 49-15/16" (1,268mm) includes both the Model ACUC cased cooling coil and the Option CD62 discharge plenum. The same height dimension applies to discharge plenum Options CD60 and CD61 used without the cooling coil.

CLEARANCES AND LOCATION - Model CAUA 350 and CAUA 400 with Optional Air Inlet Mounting Base and Discharge Plenum

Required Clearances to the Furnace Section and Flue		
	inches	mm
Right Side	0	0
Left Side	0	0
Front	3	76
Rear	0	0
Bottom	0	0
Flue Connector	6	152
Top	1	25

Position the base-mounted Model CAUA with discharge plenum in a location that will provide for return airflow and discharge airflow so that a comfort-level space temperature can be efficiently maintained. The effectiveness of this system depends on the ability to freely circulate the air throughout the building. Impeding the airflow at the discharge and/or inlet, either permanently or temporarily, will reduce the effectiveness of the system.

Return air circulates into the system through the openings in the base. The base must have three or four sides open, which means it can be placed next to a wall but not in a corner. Select a location where airflow is not obstructed on the open sides.

Discharge from the plenum may be from four, three or two sides depending on the installation. A clear path for discharge air should be maintained to provide a comfort-level temperature in the space.

Clearances listed in the table on the left must be maintained.

Vertical Unit - Model CAUA



PRESSURE DROPS for Model CAUA Inlet Base with Filters, Discharge Plenum, and Cooling Coil

PRESSURE DROP TABLE

Use this table if the application includes both an inlet base with filters and a discharge plenum with or without a cooling coil. If the application uses a discharge plenum without the base, use this table to determine pressure drop through the discharge plenum; refer to Air Flow Pressure Drop Table for pressure drops for other components. If the application uses a base with filters but not a discharge plenum, use this table to determine pressure drop through the filters; refer to Air Flow Pressure Drop Table for pressure drops of other components.

Size	CFM	Inlet Air Base with Filters (1" clean filters) --exposed to open area on 3 or 4 sides						Discharge Plenum Option				Cooling Coil Model ACUC						ESP
		Disposable Flat Filters		Permanent Aluminum		Disposable Pleated						120		150		180		
		Open area on 4 Sides	Open area on 3 Sides	Open area on 4 Sides	Open area on 3 Sides	Open area on 4 Sides	Open area on 3 Sides	CD60 ^A	CD61 ^B	CD61 ^C	CD62 ^D	Wet	Dry	Wet	Dry	Wet	Dry	
350	4,500	0.06	0.08	0.024	0.035	0.11	0.18	0.015	0.03	0.04	0.07	.13	.10	.18	.14	.16	.13	
	5,000	0.07	0.09	0.027	0.040	0.13	0.20	0.02	0.04	0.05	0.08	.16	.13	.22	.18	.18	.15	
	5,500	0.08	■	0.03	0.045	0.15	0.24	0.02	0.04	0.055	0.09	.18	.15	.25	.21	.21	.18	
	5,760	0.08	■	0.032	0.049	0.17	0.27	0.03	0.05	0.06	0.10	.20	.17	.29	.25	.23	.21	
400	5,000	0.07	0.09	0.027	0.040	0.13	0.20	0.02	0.04	0.05	0.08	.16	.13	.22	.18	.18	.15	
	5,500	0.08	■	0.030	0.045	0.15	0.24	0.02	0.04	0.055	0.08	.18	.15	.25	.21	.21	.18	
	6,000	0.08	■	0.035	0.054	0.18	0.28	0.03	0.05	0.06	0.09	.21	.18	.31	.27	.25	.22	
	6,580	0.09	■	0.039	0.061	0.20	0.31	0.04	0.06	0.075	0.10	■	■	■	■	■	■	

- 4 Sides Open (no blockoff plates)
- 3 Sides Open (blockoff plate(s) on one side)
- 2 Sides Open (blockoff plates on two sides)
- Six blockoff plates installed (add to ACUC pressure drop)

AIR DELIVERY (CFM) - Applies to Model CAUA 350 and CAUA 400 equipped with all of the following:

- Two 1-HP Direct-drive Blower Motors
- Optional Air Inlet Mounting Base (with or without filters)
- Discharge Plenum Option CD60 or CD61

Size	Blower(s)	Motor(s)	@ .2" w.c. ESP	@ .4" w.c. ESP
350-400	(2)12-9	(2)1HP - factory set at high speed	5,000 CFM	4,800 CFM

NOTE: If a Model ACUC cooling coil is included, an optional belt-driven motor must be selected.

BLOWER CHART for Optional Belt-Drive Motor - Applies to Model CAUA 350 and CAUA 400 with both Optional Air Inlet Mounting Base and Discharge Plenum

The blower chart includes the static pressure drop through the heater. If using an inlet base *without* filters, the static pressure is negligible and is figured at zero. If using an inlet base with filters, a discharge plenum, and/or a cooling coil, calculate total external static pressure from the pressure drop table above.

Model CAUA heaters with both an optional air inlet mounting base and a discharge plenum are available in the temperature rises and motor horsepower listed. If installing the system in an air turnover application that requires an even lower temperature rise, order the Model CAUA equipped with an optional two-stage gas valve.

Base-Mounted Model CAUA 350 with a Discharge Plenum

Temp Rise	CFM	0.2" w.c. ESP			0.4" w.c. ESP			0.6" w.c. ESP			0.8" w.c. ESP		
		RPM	HP	BHP	RPM	HP	BHP	RPM	HP	BHP	RPM	HP	BHP
60°F	4320	672	1.5	1.09	751	1.5	1.25	825	1.5	1.45	893	2	1.65
55°F	4710	720	1.5	1.34	794	2	1.56	864	2	1.78	929	3	2.05
50°F	5185	777	2	1.74	845	3	2.05	910	3	2.24	971	3	2.44
45°F	5760	848	3	2.38	910	3	2.63	970	3	2.84	1027	5	3.10

Base-Mounted Model CAUA 400 with a Discharge Plenum

Temp Rise	CFM	0.2" w.c. ESP			0.4" w.c. ESP			0.6" w.c. ESP			0.8" w.c. ESP		
		RPM	HP	BHP	RPM	HP	BHP	RPM	HP	BHP	RPM	HP	BHP
60°F	4935	743	1.5	1.48	814	2	1.73	882	2	1.95	945	3	2.17
55°F	5385	795	2	1.90	860	3	2.15	924	3	2.39	985	3	2.64
50°F	5925	863	3	2.60	924	3	2.75	983	3	2.96	1039	5	3.29
45°F	6580	942	5	3.33	997	5	2.63	1051	5	3.93	1104	5	4.22



CASED COOLING COIL MODEL ACU Applies to Model CAUA



ANSI Z83.8a - Commercial/Industrial
CGA 2.6a - Commercial/Industrial

DESCRIPTION AND FEATURES

Model ACU Series cased cooling coils are designed specifically for Reznor® Model CAUA Series of heaters.

- 3 Models/3 Sizes per Model
- Nominal Cooling Capacity Range - 60 to 180 MBH
- Airflow Range - 1800 to 6000 CFM
- "A" Coil with R410a Refrigerant
- Thermal Expansion Valve(s)
- Stainless Steel Drain Pan
- 3/8" Rifled Copper Tubing with Aluminum Fins
- Painted (Tawny Beige) Mated Cabinets (Model Series ACU and Model Series CAUA Packaged Heaters)

BENEFITS

Ease of Installation

The coils are easy to install, requiring no expensive field fabrication time or additional costs.

Proper Operation and Performance

All coils include a factory-matched and installed thermal expansion valve for R-410A refrigerant. The expansion valve ensures proper operation of the coil over a wide range of design conditions. Use of an expansion valve eliminates problems such as compressor flooding and evaporator coil frosting that are often encountered with fixed orifice expansion devices. In addition, the coils employ an interlaced circuiting design which provides a more efficient use of the coil surface than other circuiting techniques.

Design Flexibility

Many coil sizes are available for *your* cooling requirements. Nominal capacities range from 60 to 180 MBH (5 to 15 tons) over an airflow range of 1800 to 6000 cfm.

Staging Options

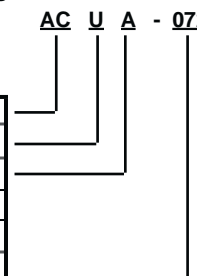
For nominal capacities of 90 MBH and above, the optional coils consist of two independent refrigerant circuits. The independent circuit design allows for use of separate condensing units. Staging condensing units on the large capacity coils results in greater control under part load conditions.

Model Number Coding

Sample No:

AC U A - 072

Air Conditioning Cased Coil	AC
Upflow	U
Cabinet Size	A
	B
	C
Nominal Capacity (MBH)	060
	072
	090
	120
	150
	180



Vertical Unit - Model CAUA

TECHNICAL DATA

Model		ACUA			ACUB			ACUC		
Size		060	072	090	090	120	150	120	150	180
Nominal Cooling Capacity	MBH	60	72	90	90	120	150	120	150	180
	kW	5	6	7.5	7.5	10	12.5	10	12.5	15
Thermal Expansion Valves ^A		1	1	2	2	2	2	2	2	2
Liquid Line Connection(s)		3/8"	1/2"	(2) 3/8"	(2) 3/8"	(2) 3/8"	(2) 1/2"	(2) 3/8"	(2) 1/2"	(2) 1/2"
No. of Interlaced Circuits		8	8	12	12	12	18	12	16	18
Face Area	ft ²	7.79	7.79	9.38	14.04	11.67	13.7	17.13	15.38	17.13
	M ²	0.72	0.72	0.87	1.30	1.08	1.27	1.59	1.43	1.59
Rows - Fins/Inch		2 - 10	2 - 12	3 - 10	2 - 12	3 - 10	3 - 12	2 - 12	3 - 10	3 - 10
Airflow - cfm (m ³ /hr)	Low	1,800 (3,058)			3,000 (5,097)			4,000 (6,796)		
	Nominal	2,400 (4,077)			4,000 (6,796)			5,000 (8,495)		
	High	3,000 (5,097)			5,000 (8,495)			6,000 (10,194)		
Approximate Weight	lbs.	83	86	105	110	122	140	176	180	188
	Kg.	38	39	48	50	55	64	80	82	85

- Thermal expansion valves are factory supplied for field installation. Models with two thermal expansion valves have interlaced circuiting.
- Airflow in excess of maximum values shown may result in blow-off condensate.

Size 060 available for single circuit or 1/3-2/3

Size 072 available for single circuit only

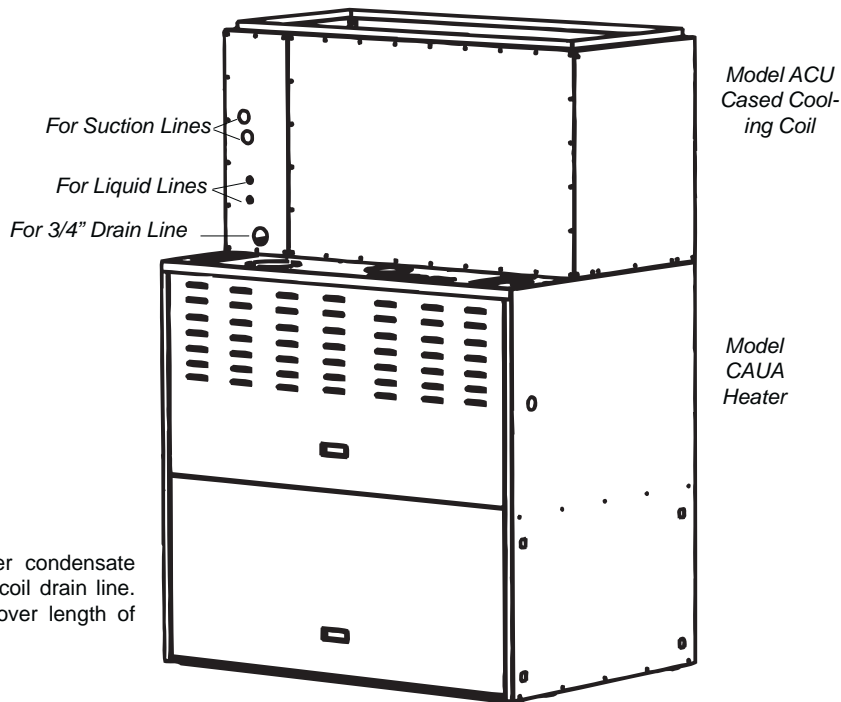
Sizes 090 thru 180 available for 50/50 or 1/3-2/3

Thermostatic Expansion Valve Kit (shipped with the Cased Cooling Coil) and Tubing Sizes by Model, Size, and Circuit																	
Model	Size	Circuit(s)		Evaporator Coil				Circuit A (Bottom Liquid Line Connection) - *TEV Inlet is tubing size.				Circuit A - Suction Line Tubing	Circuit B (Top Liquid Line Connection) - *TEV Inlet is tubing size.				Circuit B - Suction Line Tubing
				Row	FH	FL	FPI	Distributor (on coil) Connection	Reducer	Outlet	*Inlet		Distributor (on coil) Connection	Reducer	Outlet	*Inlet	
		Desc.	Code														
ACUA	060	Single	AUD1	2	20	28	10	5/8	Yes	7/8	5/8	7/8					
	060	1/3-2/3	AUD3	2	20	28	10	5/8	No	5/8	1/2	7/8	5/8	No	5/8	5/8	7/8
	072	Single	AUD1	2	20	28	12	7/8	No	7/8	5/8	7/8					
	090	50/50	AUD2	3	24	28	10	5/8	Yes	7/8	5/8	7/8	5/8	Yes	7/8	5/8	7/8
	090	1/3-2/3	AUD3	3	24	28	10	5/8	No	5/8	5/8	7/8	5/8	Yes	7/8	5/8	7/8
ACUB	090	50/50	AUD2	2	24	42	12	5/8	Yes	7/8	5/8	7/8	5/8	Yes	7/8	5/8	7/8
	090	1/3-2/3	AUD3	2	24	42	12	5/8	No	5/8	5/8	7/8	5/8	Yes	7/8	5/8	7/8
	120	50/50	AUD2	3	20	42	10	5/8	Yes	7/8	5/8	7/8	5/8	Yes	7/8	5/8	7/8
	120	1/3-2/3	AUD3	3	20	42	10	5/8	No	5/8	5/8	7/8	7/8	No	7/8	5/8	7/8
	150	50/50	AUD2	3	24	42	12	7/8	No	7/8	5/8	7/8	7/8	No	7/8	5/8	7/8
	150	1/3-2/3	AUD3	3	24	42	12	5/8	Yes	7/8	5/8	1-3/8	7/8	No	7/8	5/8	7/8
ACUC	120	50/50	AUD2	2	30	41	12	5/8	Yes	7/8	5/8	1-3/8	5/8	Yes	7/8	5/8	1-3/8
	120	1/3-2/3	AUD3	2	30	41	12	5/8	No	5/8	5/8	1-3/8	7/8	No	7/8	5/8	7/8
	150	50/50	AUD2	3	27	41	10	7/8	No	7/8	5/8	1-3/8	7/8	No	7/8	5/8	1-3/8
	150	1/3-2/3	AUD3	3	27	41	10	5/8	Yes	7/8	5/8	1-3/8	1-1/8	Yes	7/8	5/8	7/8
	180	50/50	AUD2	3	30	41	10	1-1/8	Yes	7/8	5/8	1-3/8	1-1/8	Yes	7/8	5/8	1-3/8
180	1/3-2/3	AUD3	3	30	41	10	5/8	Yes	7/8	5/8	1-3/8	1-1/8	Yes	7/8	5/8	7/8	

TYPICAL WIRING AND PIPING DIAGRAM

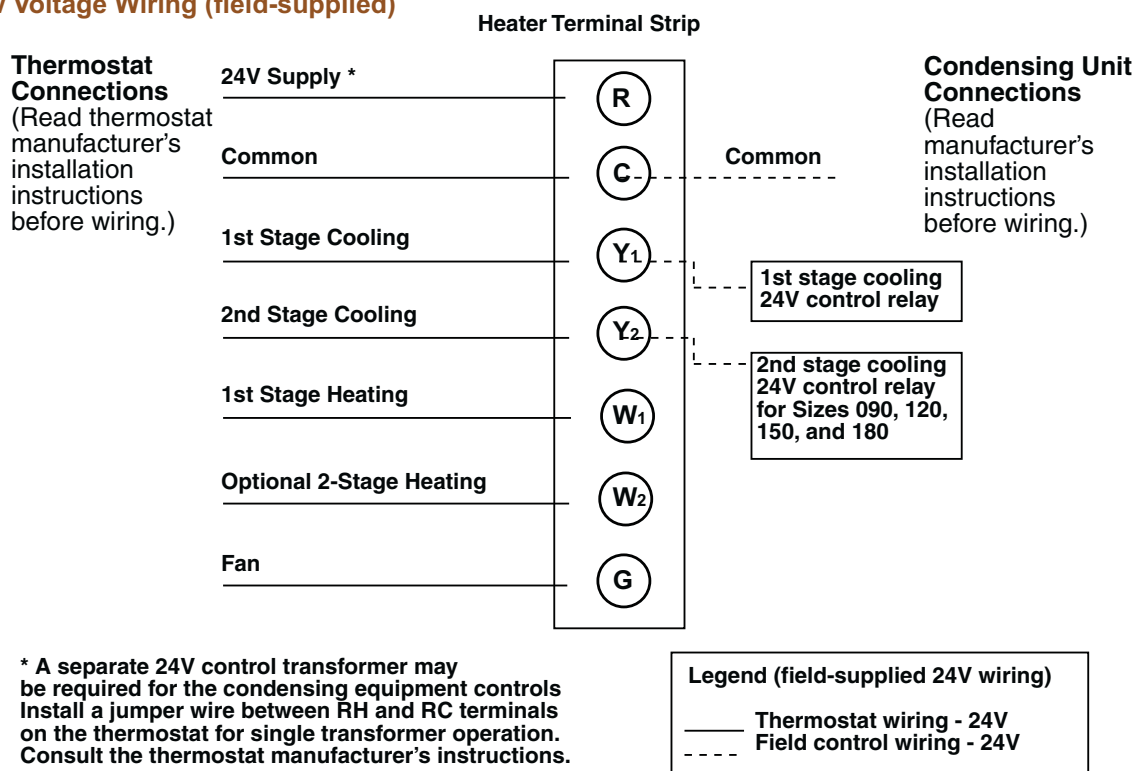
Model CAUA with Model ACU Cased Cooling Coil

Line Connection Sizes



NOTE: Install the burner condensate drain and connect to the coil drain line. Ensure downward slope over length of drain line.

Typical Low Voltage Wiring (field-supplied)



* A separate 24V control transformer may be required for the condensing equipment controls. Install a jumper wire between RH and RC terminals on the thermostat for single transformer operation. Consult the thermostat manufacturer's instructions.

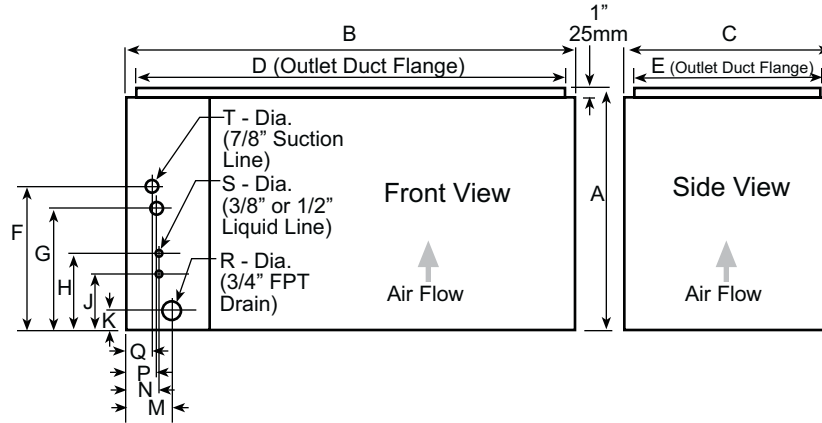
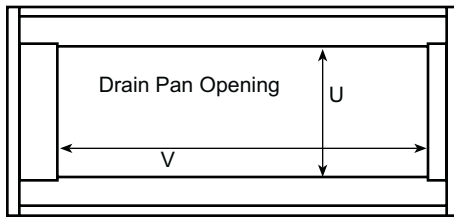
NOTES:

* A separate 24V control transformer may be required for the condensing equipment controls.

*Install a jumper wire between the RH and RC terminals on the thermostat for single transformer operation. Consult the thermostat manufacturer.

Dimensions

(± 1/8"; ± 3mm)



Inches

Model	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	R*	S*	T*	U	V
ACUA	27	38	23	36	21	16 1/2	--	8 1/2	--	2 1/8	6	4	--	3 1/2	2	3/4	1 1/4	14 1/2	27
ACUB	27	50	23	48	21	16	13 5/8	8 5/8	6 1/4	2 1/8	5 1/8	3 5/8	3 1/4	2 3/4	2	(2) 3/4	(2) 1 1/2	14 1/2	41 1/4
ACUC	32 5/8	50	36	48	34	20 1/2	17 1/4	9 1/4	7 3/4	2 1/8	4 1/4	5 3/4	4 1/4	3	2	(2) 3/4	(2) 1 3/4	27 1/2	39 7/8

mm

Model	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	R*	S*	T*	U	V
ACUA	686	965	584	914	533	419	--	216	--	54	152	101	--	89	51	19	32	368	686
ACUB	686	127	584	1,219	533	406	346	219	159	54	130	92	83	70	51	(2) 19	(2) 38	368	1,048
ACUC	829	1,270	914	1,219	864	521	438	235	197	54	108	146	108	76	51	(2) 19	(2) 44	699	1,013

* Hole size (not pipe size). Hole Locations: Suction Line, FxQ and GxP; Liquid Line, HxN and JxN; Drain, KxM.

Selection Procedure

- From the table on the right, determine the matching coil cabinet by model size (ACUA, ACUB, or ACUC) for your Model CAUA heater.
- For the specific application, identify the design conditions, nominal cooling load, airflow required, and saturated vapor refrigerant temperature supplied to the coil.
- Reference the Performance Data Tables. Select the appropriate table based on the model size determined in No. 1. Find the coil that meets or exceeds your nominal cooling requirement based on the design conditions, operating CFM, and the saturated suction temperature (evaporator temperature) of the refrigerant supplied to the coil.

Heater Size	150	200	250	300	350	400
Cabinet	ACUA	ACUB	ACUC			
Coil Size	060	090	120			
	072	120	150			
	090	150	180			

EXAMPLE:

Furnace Model	CAUA 200
Design Conditions	80/67 deg. F 27/19 deg. C
Supply Airflow Required	2,400 CFM 4,077 m ³ /hr
Evaporator Temperature	45 deg. F* 7 deg. C*
Required Cooling Load	84 MBH 24.6 kW

SOLUTION:

Select Model ACUA from Table above; choose the Model ACUA Performance Data Table on next page for next step.

- Go to center section of columns

- Go to middle column of center section.

Find the total cooling load where the 45 deg. F (7 deg. C) Evaporator Temperature row intersects the selected 2400 CFM column for each size.

-- Size 060 @ 71 MBH;
-- Size 072 @ 75 MBH; and
-- Size 090 @ 95 MBH

Select ACUA-090 because the total cooling load at the specified conditions will provide the 84 MBH required at full load

*Make sure your condensing unit(s) are rated for the cooling load. Add in line losses to determine the evaporator temperature as: Evaporator temperature = Saturated Suction Temperature (43°F) + Line Losses (2°F) = 45°F. **Always follow the condensing unit manufacturer's recommendations for refrigerant piping and proper equipment sizing.**

Performance Table
Model ACUA-060

ACUA-060 Single Circuit Cased Coil, 2 Row, 10 FPI, R410A									
Entering Air DB/WB °F	Std Air Flow SCFM	Face Velocity SFPM	SST °F	Leaving Air DB/WB °F	Total Capacity MBH	Sensible Capacity MBH	Refrig Velocity FPM	Refrig PD PSI	Air PD IN WC
80.0 / 67.0	2022	260	35.0	52.8 / 51.4	95.7	59.5	2030	6.4	0.11
			40.0	55.9 / 54.5	79.0	52.5	1526	4.2	0.11
			45.0	59.3 / 57.8	60.4	45.3	1066	2.4	0.11
			50.0	62.2 / 60.7	42.9	38.9	694	1.2	0.10
			55.0	65.7 / 62.5	31.2	31.2	463	.7	0.08
	2644	340	35.0	55.5 / 53.5	110.3	70.0	2341	8.1	0.17
			40.0	58.2 / 56.2	90.8	62.1	1754	5.3	0.17
			45.0	61.1 / 59.1	69.1	53.9	1220	3.1	0.17
			50.0	63.6 / 61.5	49.4	46.9	799	1.6	0.14
			55.0	67.1 / 63.0	36.8	36.8	546	.9	0.12
	3267	420	35.0	57.7 / 55.2	121.9	78.8	2586	9.6	0.24
			40.0	60.0 / 57.5	100.3	70.4	1938	6.3	0.24
			45.0	62.6 / 60.0	76.1	61.5	1343	3.6	0.24
			50.0	64.7 / 62.1	54.8	54.1	887	1.9	0.21
			55.0	68.2 / 63.3	41.6	41.6	618	1.1	0.17
	3889	500	35.0	59.4 / 56.4	131.5	86.7	2790	10.9	0.32
			40.0	61.5 / 58.5	108.1	77.8	2089	7.2	0.32
			45.0	63.7 / 60.7	82.2	68.4	1452	4.2	0.32
			50.0	65.8 / 62.5	59.7	59.7	966	2.2	0.26
			55.0	69.1 / 63.6	45.8	45.8	680	1.3	0.23
95.0 / 75.0	2022	260	35.0	57.9 / 55.8	134.8	80.9	2861	11.3	0.11
			40.0	60.8 / 58.6	118.2	74.6	2285	8.4	0.11
			45.0	63.9 / 61.6	99.9	68.0	1763	5.8	0.11
			50.0	67.0 / 64.7	79.4	61.1	1284	3.6	0.11
			55.0	69.7 / 67.3	60.7	55.3	903	2.1	0.10
	2644	340	35.0	61.9 / 58.8	153.3	94.5	3252	14.1	0.17
			40.0	64.1 / 61.0	135.6	88.2	2621	10.6	0.17
			45.0	66.7 / 63.5	114.3	80.9	2018	7.3	0.17
			50.0	69.3 / 66.1	90.6	73.3	1465	4.5	0.17
			55.0	71.6 / 68.3	70.0	67.0	1040	2.7	0.14
	3267	420	35.0	65.0 / 61.1	166.2	105.7	3526	16.0	0.24
			40.0	66.7 / 62.7	149.4	100.0	2888	12.4	0.24
			45.0	68.9 / 64.9	125.7	92.2	2219	8.6	0.24
			50.0	71.2 / 67.2	99.9	84.1	1617	5.4	0.24
			55.0	73.0 / 69.0	77.8	77.5	1157	3.2	0.21
	3889	500	35.0	67.5 / 62.9	176.2	115.7	3739	17.7	0.32
			40.0	68.8 / 64.2	159.1	110.0	3074	13.8	0.32
			45.0	70.6 / 66.0	135.3	102.4	2389	9.7	0.32
			50.0	72.7 / 68.0	107.5	93.8	1738	6.1	0.30
			55.0	74.8 / 69.5	84.9	84.9	1262	3.7	0.26

Vertical Unit - Model CAUA

Performance Table
Model ACUA-072

ACUA-072 Single Circuit Cased Coil, 2 Row, 12 FPI, R410A											
Entering Air DB/WB °F	Std Air Flow SCFM	Face Velocity SFPM	SST °F	Leaving Air DB/WB °F	Total Capacity MBH	Sensible Capacity MBH	Refrig Velocity FPM	Refrig PD PSI	Air PD IN WC		
80.0 / 67.0	2022	260	35.0	51.0 / 50.2	101.6	63.3	2155	7.0	0.13		
			40.0	54.5 / 53.6	83.9	55.7	1622	4.7	0.13		
			45.0	58.0 / 57.1	64.6	48.0	1140	2.7	0.13		
			50.0	61.1 / 60.1	46.1	41.2	746	1.4	0.12		
	2644	340	340	35.0	53.8 / 52.5	117.6	74.8	2496	9.0	0.20	
				40.0	56.7 / 55.3	97.2	66.4	1878	6.0	0.20	
				45.0	59.8 / 58.4	74.3	57.7	1311	3.5	0.20	
				50.0	62.5 / 61.0	53.3	50.1	863	1.8	0.17	
		3267	420	420	35.0	56.0 / 54.2	130.5	84.7	2768	10.7	0.29
					40.0	58.5 / 56.7	107.6	75.7	2080	7.1	0.29
					45.0	61.3 / 59.4	82.1	66.2	1450	4.1	0.29
					50.0	63.5 / 61.6	59.5	58.2	963	2.2	0.25
		3889	500	500	35.0	57.7 / 55.5	141.0	93.5	2993	12.2	0.40
					40.0	60.0 / 57.8	116.3	83.9	2247	8.1	0.40
					45.0	62.4 / 60.1	89.0	73.9	1571	4.8	0.40
					50.0	64.5 / 62.1	65.0	65.0	1051	2.5	0.33
	95.0 / 75.0	2022	260	35.0	55.7 / 54.3	142.8	85.9	3030	12.5	0.13	
				40.0	58.8 / 57.4	125.5	79.1	2426	9.3	0.13	
				45.0	62.0 / 60.6	106.3	72.0	1876	6.4	0.13	
				50.0	65.3 / 63.9	85.0	64.8	1375	4.1	0.13	
2644		340	340	35.0	59.9 / 57.7	161.6	100.3	3428	15.3	0.20	
				40.0	62.0 / 59.8	145.1	94.3	2804	11.8	0.20	
				45.0	64.8 / 62.6	122.2	86.3	2157	8.2	0.20	
				50.0	67.6 / 65.4	97.5	78.2	1578	5.1	0.20	
		3267	420	420	35.0	70.0 / 67.7	75.7	71.4	1125	3.1	0.17
					35.0	63.1 / 60.2	175.3	112.7	3720	17.5	0.29
					40.0	64.7 / 61.9	158.5	106.8	3063	13.8	0.29
					45.0	66.9 / 64.1	135.2	99.0	2386	9.7	0.29
		3889	500	500	50.0	69.4 / 66.5	107.9	90.3	1746	6.1	0.27
					55.0	71.4 / 68.5	84.5	83.2	1256	3.7	0.25
					35.0	65.5 / 62.1	186.0	123.7	3946	19.3	0.40
					40.0	67.0 / 63.5	168.1	117.7	3248	15.2	0.40
3889		500	500	45.0	68.8 / 65.2	145.2	110.2	2564	11.0	0.40	
				50.0	70.9 / 67.3	116.4	101.3	1883	7.0	0.36	
				55.0	73.0 / 69.0	92.4	92.4	1374	4.3	0.30	

Performance Table
Model ACUA-090

ACUA-090 Dual Circuit Cased Coil, 3 Row, 10 FPI, R410A									
Entering Air DB/WB °F	Std Air Flow SCFM	Face Velocity SFPM	SST °F	Leaving Air DB/WB °F	Total Capacity MBH	Sensible Capacity MBH	Refrig Velocity FPM	Refrig PD PSI	Air PD IN WC
80.0 / 67.0	2427	260	35.0	47.2 / 47.0	140.8	85.9	1991	7.4	0.16
			40.0	51.0 / 50.7	118.9	76.1	1532	5.1	0.16
			45.0	55.0 / 54.6	93.9	65.6	1105	3.1	0.16
			50.0	58.7 / 58.3	68.7	55.8	741	1.7	0.15
			55.0	61.9 / 61.2	47.4	47.4	470	.8	0.13
	3173	340	35.0	50.0 / 49.4	166.0	102.9	2348	9.7	0.25
			40.0	53.3 / 52.6	140.0	91.7	1803	6.7	0.25
			45.0	56.7 / 56.0	110.4	79.7	1300	4.1	0.25
			50.0	60.1 / 59.3	80.4	68.3	867	2.2	0.23
			55.0	63.4 / 61.7	56.8	56.8	563	1.1	0.19
	3920	420	35.0	52.2 / 51.3	186.6	117.7	2639	11.8	0.36
			40.0	55.1 / 54.1	157.5	105.5	2030	8.2	0.36
			45.0	58.2 / 57.2	123.8	92.2	1457	5.0	0.36
			50.0	61.2 / 60.1	90.2	79.8	972	2.7	0.34
			55.0	64.6 / 62.1	65.4	65.4	648	1.4	0.26
	4667	500	35.0	54.1 / 52.8	203.8	130.7	2882	13.7	0.49
			40.0	56.7 / 55.3	171.6	117.6	2211	9.5	0.49
			45.0	59.5 / 58.1	135.0	103.5	1589	5.8	0.49
			50.0	62.1 / 60.7	98.9	90.4	1067	3.1	0.45
			55.0	65.5 / 62.4	73.1	73.1	724	1.7	0.35
95.0 / 75.0	2427	260	35.0	51.0 / 50.6	195.0	115.3	2758	12.7	0.16
			40.0	54.4 / 53.9	174.3	106.5	2245	9.8	0.16
			45.0	58.0 / 57.5	150.3	97.0	1769	7.0	0.16
			50.0	61.7 / 61.1	123.5	87.3	1332	4.6	0.16
			55.0	65.3 / 64.6	95.6	77.9	947	2.7	0.15
	3173	340	35.0	54.8 / 53.8	228.5	137.8	3232	16.6	0.25
			40.0	57.6 / 56.6	204.6	128.2	2636	12.8	0.25
			45.0	60.7 / 59.6	176.2	117.6	2074	9.2	0.25
			50.0	64.0 / 62.8	144.0	106.3	1553	6.0	0.25
			55.0	67.0 / 65.9	111.7	95.9	1107	3.6	0.23
	3920	420	35.0	58.1 / 56.6	252.1	156.0	3566	19.5	0.36
			40.0	60.2 / 58.7	228.7	147.2	2947	15.4	0.36
			45.0	62.9 / 61.3	197.1	135.8	2319	11.1	0.36
			50.0	65.8 / 64.1	160.9	123.6	1736	7.3	0.36
			55.0	68.5 / 66.8	125.3	112.3	1242	4.4	0.34
	4667	500	35.0	60.8 / 58.8	271.2	172.4	3837	22.0	0.49
			40.0	62.6 / 60.5	245.8	163.2	3167	17.3	0.49
			45.0	64.8 / 62.7	214.4	152.4	2523	12.8	0.49
			50.0	67.3 / 65.2	175.0	139.4	1888	8.4	0.49
			55.0	69.7 / 67.5	137.4	127.8	1362	5.1	0.42

Performance Table
Model ACUB-090

ACUB-090 Dual Circuit Cased Coil, 2 Row, 12 FPI, R410A											
Entering Air DB/WB °F	Std Air Flow SCFM	Face Velocity SFPM	SST °F	Leaving Air DB/WB °F	Total Capacity MBH	Sensible Capacity MBH	Refrig Velocity FPM	Refrig PD PSI	Air PD IN WC		
80.0 / 67.0	3640	260	35.0	50.8 / 50.0	184.9	114.8	2616	9.8	0.13		
			40.0	54.0 / 53.1	155.6	102.2	2005	6.7	0.13		
			45.0	57.4 / 56.5	122.3	88.8	1439	4.1	0.13		
			50.0	60.6 / 59.6	88.5	76.2	955	2.2	0.12		
	4760	340	340	35.0	53.7 / 52.3	213.3	135.3	3018	12.4	0.20	
				40.0	56.4 / 55.0	179.4	121.4	2311	8.5	0.20	
				45.0	59.3 / 57.9	140.7	106.4	1656	5.2	0.20	
				50.0	62.0 / 60.6	102.1	92.3	1101	2.8	0.19	
		5880	420	420	35.0	65.4 / 62.4	75.0	75.0	743	1.5	0.14
					40.0	56.1 / 54.3	233.0	151.8	3296	14.4	0.29
					45.0	58.3 / 56.4	198.3	138.0	2555	10.1	0.29
					50.0	60.8 / 58.9	155.4	121.8	1829	6.2	0.29
	7000	500	500	35.0	63.2 / 61.3	113.8	107.0	1227	3.3	0.25	
				40.0	66.6 / 62.8	85.3	85.3	846	1.9	0.20	
				45.0	58.1 / 55.9	247.5	165.8	3500	15.9	0.40	
				50.0	59.8 / 57.5	213.8	152.8	2754	11.5	0.40	
		500	500	500	45.0	62.1 / 59.8	167.3	135.7	1970	7.0	0.40
					50.0	64.1 / 61.8	123.6	120.3	1333	3.8	0.33
					55.0	67.5 / 63.1	94.5	94.5	936	2.2	0.27
					35.0	56.3 / 54.9	251.2	152.3	3554	16.2	0.13
95.0 / 75.0	3640	260	40.0	58.6 / 57.2	227.6	143.0	2932	12.8	0.13		
			45.0	61.7 / 60.2	195.2	131.1	2297	9.1	0.13		
			50.0	64.8 / 63.3	159.4	118.7	1719	6.0	0.13		
			55.0	67.8 / 66.2	123.3	107.1	1222	3.5	0.12		
	4760	340	340	35.0	60.5 / 58.4	281.8	177.2	3986	19.7	0.20	
				40.0	62.3 / 60.2	256.0	167.9	3299	15.6	0.20	
				45.0	64.5 / 62.3	224.7	156.9	2644	11.6	0.20	
				50.0	67.2 / 64.9	182.6	143.0	1969	7.5	0.20	
		5880	420	420	55.0	69.6 / 67.3	142.5	130.5	1412	4.5	0.19
					35.0	63.6 / 60.8	305.2	199.2	4318	22.4	0.29
					40.0	65.2 / 62.3	276.6	189.3	3564	17.7	0.29
					45.0	66.8 / 63.9	245.5	178.9	2890	13.4	0.29
	7000	500	500	50.0	69.1 / 66.1	201.3	164.7	2171	8.9	0.29	
				55.0	71.1 / 68.2	158.3	151.7	1569	5.4	0.25	
				35.0	66.1 / 62.6	322.9	218.6	4567	24.5	0.40	
				40.0	67.4 / 63.9	292.7	208.5	3770	19.5	0.40	
		500	500	500	45.0	68.8 / 65.3	259.7	197.9	3056	14.8	0.40
					50.0	70.6 / 67.1	216.5	184.4	2334	10.1	0.40
					55.0	72.4 / 68.8	172.3	171.2	1708	6.3	0.33
					35.0	63.6 / 60.8	305.2	199.2	4318	22.4	0.29

Performance Table
Model ACUB-120

ACUB-120 Dual Circuit Cased Coil, 3 Row, 10 FPI, R410A									
Entering Air DB/WB °F	Std Air Flow SCFM	Face Velocity SFPM	SST °F	Leaving Air DB/WB °F	Total Capacity MBH	Sensible Capacity MBH	Refrig Velocity FPM	Refrig PD PSI	Air PD IN WC
80.0 / 67.0	3033	260	35.0	47.4 / 47.2	174.3	106.7	2465	11.0	0.16
			40.0	50.8 / 50.5	150.0	95.7	1933	7.9	0.16
			45.0	54.4 / 54.1	122.0	83.8	1436	5.1	0.16
			50.0	58.1 / 57.8	90.8	71.6	980	2.8	0.16
			55.0	61.3 / 60.8	62.7	61.4	621	1.4	0.14
	3967	340	35.0	50.3 / 49.7	204.3	127.3	2889	14.3	0.25
			40.0	53.2 / 52.5	175.8	114.9	2265	10.3	0.25
			45.0	56.3 / 55.6	143.3	101.7	1686	6.7	0.25
			50.0	59.6 / 58.8	106.1	87.5	1144	3.7	0.23
			55.0	62.6 / 61.4	74.7	74.7	740	1.9	0.20
	4900	420	35.0	52.7 / 51.8	226.9	144.4	3210	17.1	0.36
			40.0	55.1 / 54.1	196.5	131.7	2531	12.4	0.36
			45.0	57.9 / 56.8	159.5	117.0	1878	8.1	0.36
			50.0	60.7 / 59.7	118.7	101.9	1280	4.5	0.34
			55.0	63.8 / 61.9	85.5	85.5	848	2.4	0.27
	5833	500	35.0	54.8 / 53.5	243.6	158.8	3445	19.1	0.49
			40.0	56.8 / 55.4	213.0	146.4	2744	14.2	0.49
			45.0	59.2 / 57.8	173.0	131.0	2036	9.3	0.49
			50.0	61.7 / 60.4	129.3	115.0	1395	5.2	0.45
			55.0	64.8 / 62.2	95.6	95.6	947	2.9	0.35
95.0 / 75.0	3033	260	35.0	51.9 / 51.5	236.7	141.0	3349	18.3	0.16
			40.0	54.6 / 54.2	215.7	132.2	2779	14.5	0.16
			45.0	57.9 / 57.3	188.6	121.6	2220	10.7	0.16
			50.0	61.3 / 60.8	157.7	110.2	1701	7.3	0.16
			55.0	64.8 / 64.1	124.6	99.0	1234	4.5	0.16
	3967	340	35.0	56.1 / 55.1	272.1	166.8	3849	23.0	0.25
			40.0	58.3 / 57.3	247.5	157.2	3189	18.2	0.25
			45.0	60.7 / 59.6	220.0	146.9	2590	13.9	0.25
			50.0	63.7 / 62.5	183.7	134.2	1981	9.5	0.25
			55.0	66.6 / 65.5	145.2	121.6	1438	5.9	0.23
	4900	420	35.0	59.3 / 57.8	298.4	188.7	4220	26.7	0.36
			40.0	61.2 / 59.6	271.6	178.7	3499	21.2	0.36
			45.0	63.1 / 61.5	244.0	169.0	2872	16.5	0.36
			50.0	65.6 / 64.0	204.3	155.6	2203	11.4	0.36
			55.0	68.2 / 66.5	162.0	142.1	1606	7.1	0.34
	5833	500	35.0	61.9 / 59.9	319.0	208.3	4513	29.7	0.49
			40.0	63.6 / 61.5	290.3	198.1	3740	23.6	0.49
			45.0	65.2 / 63.0	260.6	188.0	3068	18.5	0.49
			50.0	67.2 / 65.1	221.3	175.1	2386	13.0	0.49
			55.0	69.4 / 67.3	176.3	161.0	1748	8.2	0.45

Performance Table
Model ACUB-150

ACUB-150 Dual Circuit Cased Coil, 3 Row, 12 FPI, R410A										
Entering Air DB/WB °F	Std Air Flow SCFM	Face Velocity SFPM	SST °F	Leaving Air DB/WB °F	Total Capacity MBH	Sensible Capacity MBH	Refrig Velocity FPM	Refrig PD PSI	Air PD IN WC	
80.0 / 67.0	3640	260	35.0	45.6 / 45.6	222.5	135.3	2098	6.7	0.19	
			40.0	49.6 / 49.6	188.3	119.5	1618	4.6	0.19	
			45.0	53.8 / 53.8	149.6	103.0	1174	2.9	0.19	
			50.0	57.8 / 57.7	109.5	87.2	787	1.5	0.18	
	4760	340	340	35.0	48.2 / 48.0	265.2	163.7	2501	9.0	0.31
				40.0	51.7 / 51.5	223.8	145.2	1922	6.2	0.31
				45.0	55.5 / 55.2	177.0	125.9	1388	3.8	0.31
				50.0	59.1 / 58.7	129.1	107.6	928	2.1	0.28
	5880	420	420	35.0	62.4 / 61.4	90.4	90.4	598	1.0	0.23
				40.0	50.4 / 49.9	300.3	188.2	2832	11.1	0.44
				45.0	53.6 / 53.0	253.2	168.0	2175	7.7	0.44
				50.0	56.9 / 56.4	199.7	146.5	1567	4.7	0.44
	7000	500	500	35.0	60.1 / 59.5	145.7	126.3	1048	2.5	0.40
				40.0	55.0 / 54.3	104.4	104.4	690	1.3	0.30
				45.0	52.2 / 51.5	328.8	209.8	3101	13.0	0.59
				50.0	58.1 / 57.3	278.4	188.7	2391	9.1	0.59
95.0 / 75.0	3640	260	35.0	61.0 / 60.1	160.6	143.8	1155	3.0	0.55	
			40.0	58.1 / 57.3	218.9	165.4	1717	5.5	0.59	
			45.0	54.5 / 54.3	117.4	117.4	775	1.6	0.40	
			55.0	64.5 / 62.1	117.4	117.4	775	1.6	0.40	
	4760	340	340	35.0	48.7 / 48.7	309.6	182.2	2919	11.7	0.19
				40.0	52.4 / 52.4	275.8	167.4	2369	8.9	0.19
				45.0	56.3 / 56.2	238.4	152.1	1871	6.4	0.19
				50.0	60.3 / 60.2	196.1	136.4	1410	4.2	0.19
	5880	420	420	55.0	64.1 / 63.9	152.6	121.4	1008	2.5	0.18
				35.0	52.8 / 52.4	361.0	217.2	3404	15.1	0.31
				40.0	55.5 / 55.0	327.4	203.3	2812	11.9	0.31
				45.0	58.9 / 58.4	282.0	185.8	2213	8.6	0.31
	7000	500	500	50.0	62.4 / 61.8	231.3	167.6	1663	5.6	0.31
				55.0	65.7 / 65.1	179.9	150.6	1188	3.4	0.28
				35.0	56.1 / 55.3	400.2	247.1	3774	17.9	0.44
				40.0	58.3 / 57.4	364.7	233.2	3133	14.3	0.44
5880	420	420	45.0	61.0 / 60.1	317.6	215.9	2492	10.5	0.44	
			50.0	64.1 / 63.2	260.1	196.0	1870	6.9	0.44	
			55.0	67.0 / 66.1	202.9	177.5	1341	4.2	0.40	
			35.0	58.8 / 57.5	431.5	273.8	4069	20.3	0.59	
7000	500	500	40.0	60.6 / 59.4	393.6	259.7	3380	16.2	0.59	
			45.0	62.8 / 61.5	347.3	243.3	2725	12.2	0.59	
			50.0	65.6 / 64.3	284.3	222.1	2044	8.0	0.59	
			55.0	68.2 / 66.8	223.5	202.8	1476	4.9	0.55	

Performance Table
Model ACUC-120

ACUC-120 Dual Circuit Cased Coil, 2 Row, 12 FPI, R410A									
Entering Air DB/WB °F	Std Air Flow SCFM	Face Velocity SFPM	SST °F	Leaving Air DB/WB °F	Total Capacity MBH	Sensible Capacity MBH	Refrig Velocity FPM	Refrig PD PSI	Air PD IN WC
80.0 / 67.0	4442	260	35.0	51.5 / 50.7	217.6	136.6	3079	15.7	0.13
			40.0	54.2 / 53.3	187.5	123.7	2416	11.3	0.13
			45.0	57.2 / 56.3	152.0	109.5	1789	7.3	0.13
			50.0	60.3 / 59.3	112.6	94.7	1215	4.1	0.12
			55.0	63.3 / 61.7	79.9	79.9	792	2.1	0.10
	5808	340	35.0	54.7 / 53.4	244.2	158.4	3454	19.0	0.20
			40.0	56.7 / 55.3	213.8	146.1	2754	14.1	0.20
			45.0	59.2 / 57.8	173.6	130.5	2043	9.2	0.20
			50.0	61.8 / 60.3	129.0	114.2	1391	5.1	0.19
			55.0	64.9 / 62.2	95.0	95.0	941	2.8	0.14
	7175	420	35.0	57.1 / 55.3	264.2	177.2	3737	21.5	0.29
			40.0	58.7 / 56.8	233.5	165.1	3008	16.3	0.29
			45.0	60.8 / 58.9	190.4	149.0	2241	10.8	0.29
			50.0	63.0 / 61.1	142.4	131.7	1536	6.1	0.27
			55.0	66.1 / 62.6	108.1	108.1	1071	3.5	0.20
	8542	500	35.0	59.0 / 56.8	278.6	193.3	3941	23.5	0.40
			40.0	60.4 / 58.1	247.1	181.2	3184	17.9	0.40
			45.0	62.1 / 59.8	203.4	165.3	2394	12.0	0.40
			50.0	64.0 / 61.7	153.8	147.7	1658	6.9	0.33
			55.0	67.1 / 62.9	119.4	119.4	1183	4.1	0.27
95.0 / 75.0	4442	260	35.0	57.8 / 56.5	287.6	178.3	4068	24.8	0.13
			40.0	59.9 / 58.5	261.6	168.4	3370	19.7	0.13
			45.0	61.9 / 60.5	234.4	158.6	2759	15.3	0.13
			50.0	64.8 / 63.3	195.2	145.1	2105	10.4	0.13
			55.0	67.5 / 66.0	154.1	131.8	1527	6.4	0.12
	5808	340	35.0	61.9 / 59.8	319.7	207.5	4523	29.4	0.20
			40.0	63.5 / 61.3	291.6	197.5	3757	23.5	0.20
			45.0	65.2 / 63.0	261.4	187.2	3076	18.3	0.20
			50.0	67.2 / 65.0	221.6	174.1	2390	12.9	0.20
			55.0	69.5 / 67.2	176.2	159.9	1746	8.1	0.19
	7175	420	35.0	64.9 / 62.1	343.2	232.9	4855	32.9	0.29
			40.0	66.3 / 63.4	312.5	222.6	4025	26.3	0.29
			45.0	67.6 / 64.7	281.0	212.3	3307	20.7	0.29
			50.0	69.2 / 66.3	242.1	199.9	2611	14.9	0.29
			55.0	71.1 / 68.1	194.2	185.3	1924	9.5	0.25
	8542	500	35.0	67.4 / 63.9	358.8	255.0	5075	34.9	0.40
			40.0	68.4 / 64.9	328.6	245.2	4233	28.5	0.40
			45.0	69.5 / 66.0	295.9	234.9	3482	22.4	0.40
			50.0	70.9 / 67.3	256.6	222.7	2767	16.5	0.40
			55.0	72.4 / 68.8	210.4	208.9	2085	10.9	0.33

Performance Table
Model ACUC-150

ACUC-150 Dual Circuit Cased Coil, 3 Row, 10 FPI, R410A									
Entering Air DB/WB °F	Std Air Flow SCFM	Face Velocity SFPM	SST °F	Leaving Air DB/WB °F	Total Capacity MBH	Sensible Capacity MBH	Refrig Velocity FPM	Refrig PD PSI	Air PD IN WC
80.0 / 67.0	3998	260	35.0	47.5 / 47.3	229.1	140.3	2430	10.7	0.16
			40.0	50.9 / 50.6	196.9	125.8	1903	7.7	0.16
			45.0	54.5 / 54.2	159.7	110.1	1410	4.9	0.16
			50.0	58.2 / 57.9	118.6	94.0	959	2.7	0.16
			55.0	61.3 / 60.9	81.9	80.6	609	1.3	0.14
	5228	340	35.0	50.4 / 49.8	268.5	167.4	2849	14.0	0.25
			40.0	53.3 / 52.6	230.6	151.0	2228	10.0	0.25
			45.0	56.4 / 55.8	186.3	133.0	1644	6.4	0.25
			50.0	59.6 / 58.9	138.5	114.9	1120	3.6	0.23
			55.0	62.7 / 61.5	97.6	97.6	726	1.8	0.20
	6458	420	35.0	52.7 / 51.7	299.5	190.5	3177	16.8	0.36
			40.0	55.2 / 54.2	257.7	173.1	2490	12.1	0.36
			45.0	58.0 / 57.0	208.0	153.4	1836	7.8	0.36
			50.0	60.8 / 59.8	154.9	133.8	1253	4.3	0.34
			55.0	64.0 / 61.9	111.9	111.9	832	2.3	0.27
	7688	500	35.0	54.8 / 53.5	320.7	209.1	3403	19.1	0.49
			40.0	56.8 / 55.4	280.6	193.0	2712	14.0	0.49
			45.0	59.3 / 57.9	226.2	171.9	1996	8.9	0.49
			50.0	61.8 / 60.4	168.8	151.0	1366	5.0	0.45
			55.0	64.9 / 62.2	125.1	125.1	929	2.8	0.35
95.0 / 75.0	3998	260	35.0	52.0 / 51.5	311.7	185.8	3307	17.9	0.16
			40.0	54.8 / 54.3	282.6	173.6	2730	14.1	0.16
			45.0	58.0 / 57.4	247.7	160.0	2187	10.5	0.16
			50.0	61.4 / 60.9	206.6	144.9	1671	7.1	0.16
			55.0	64.9 / 64.2	162.9	130.1	1211	4.4	0.16
	5228	340	35.0	56.1 / 55.1	358.3	219.7	3802	22.5	0.25
			40.0	58.3 / 57.3	326.0	207.0	3150	17.8	0.25
			45.0	60.8 / 59.7	288.7	193.1	2548	13.5	0.25
			50.0	63.8 / 62.6	240.4	176.3	1945	9.2	0.25
			55.0	66.7 / 65.5	189.7	159.7	1410	5.7	0.23
	6458	420	35.0	59.4 / 57.8	392.8	248.6	4167	26.1	0.36
			40.0	61.3 / 59.7	357.4	235.4	3453	20.7	0.36
			45.0	63.2 / 61.6	319.6	222.0	2821	16.0	0.36
			50.0	65.7 / 64.1	267.4	204.4	2163	11.0	0.36
			55.0	68.2 / 66.5	211.8	186.7	1574	6.8	0.34
	7688	500	35.0	62.0 / 59.9	419.5	274.2	4451	29.0	0.49
			40.0	63.6 / 61.5	382.0	260.9	3691	23.1	0.49
			45.0	65.2 / 63.1	342.6	247.4	3024	18.0	0.49
			50.0	67.3 / 65.1	289.6	230.1	2342	12.6	0.49
			55.0	69.5 / 67.3	230.6	211.7	1714	7.9	0.45

Performance Table
Model ACUC-180

ACUC180									
Entering Air DB/WB °F	Std Air Flow SCFM	Face Velocity SFPM	SST °F	Leaving Air DB/WB °F	Total Capacity MBH	Sensible Capacity MBH	Refrig Velocity FPM	Refrig PD PSI	Air PD IN WC
80.0 / 67.0	4442	260	35.0	47.4 / 47.2	256.0	156.5	2414	10.5	0.16
			40.0	50.8 / 50.5	220.0	140.2	1890	7.5	0.16
			45.0	54.4 / 54.1	178.4	122.7	1400	4.8	0.16
			50.0	58.2 / 57.8	132.4	104.7	952	2.7	0.16
			55.0	61.3 / 60.9	91.3	89.7	603	1.3	0.14
	5808	340	35.0	50.2 / 49.6	300.4	187.0	2833	13.7	0.25
			40.0	53.1 / 52.5	257.9	168.5	2215	9.8	0.25
			45.0	56.3 / 55.6	208.9	148.6	1639	6.3	0.25
			50.0	59.6 / 58.9	154.8	128.0	1113	3.5	0.23
			55.0	62.6 / 61.4	108.8	108.8	719	1.7	0.20
	7175	420	35.0	52.5 / 51.6	335.6	212.9	3165	16.5	0.36
			40.0	55.1 / 54.1	288.5	193.3	2478	11.8	0.36
			45.0	57.9 / 56.8	233.5	171.4	1832	7.6	0.36
			50.0	60.8 / 59.7	173.3	149.0	1246	4.2	0.34
			55.0	63.9 / 61.9	124.8	124.8	824	2.2	0.27
	8542	500	35.0	54.6 / 53.3	360.8	234.1	3402	18.5	0.49
			40.0	56.7 / 55.4	312.5	214.7	2684	13.5	0.49
			45.0	59.2 / 57.8	253.4	191.8	1988	8.8	0.49
			50.0	61.8 / 60.4	188.9	168.2	1358	4.9	0.45
			55.0	64.9 / 62.2	139.5	139.5	921	2.7	0.35
95.0 / 75.0	4442	260	35.0	51.8 / 51.3	348.7	207.4	3289	17.5	0.16
			40.0	54.6 / 54.2	315.8	193.7	2713	13.7	0.16
			45.0	57.8 / 57.3	276.9	178.3	2172	10.2	0.16
			50.0	61.4 / 60.8	230.8	161.4	1659	6.9	0.16
			55.0	64.8 / 64.2	181.9	144.8	1202	4.2	0.16
	5808	340	35.0	55.9 / 54.9	401.3	245.4	3785	22.1	0.25
			40.0	58.2 / 57.1	365.1	231.1	3136	17.5	0.25
			45.0	60.7 / 59.6	323.0	215.4	2534	13.2	0.25
			50.0	63.7 / 62.5	269.0	196.5	1934	9.0	0.25
			55.0	66.6 / 65.5	212.1	177.9	1401	5.5	0.23
	7175	420	35.0	59.2 / 57.6	440.4	277.7	4153	25.7	0.36
			40.0	61.1 / 59.5	400.7	262.8	3441	20.4	0.36
			45.0	63.0 / 61.4	359.4	248.1	2820	15.8	0.36
			50.0	65.6 / 63.9	299.4	227.9	2153	10.8	0.36
			55.0	68.2 / 66.5	236.9	207.9	1565	6.7	0.34
	8542	500	35.0	61.8 / 59.7	471.3	306.5	4445	28.6	0.49
			40.0	63.4 / 61.3	428.6	291.3	3681	22.7	0.49
			45.0	65.1 / 63.0	384.3	276.1	3015	17.7	0.49
			50.0	67.2 / 65.1	324.5	256.5	2333	12.4	0.49
			55.0	69.4 / 67.3	258.0	235.8	1705	7.7	0.45

Coil Static Pressure Drops (in. w.c.)

Wet Coil Operating Conditions 80/67°F / Dry Coil Operating Conditions 80/58°F

Model	Operating Condition (wet/dry)	Airflow (CFM)										
		1800	2100	2400	2700	3000	3300	4000	4500	5000	5500	6000
ACUA-060	wet*	0.09	0.11	0.14	0.17	0.20	0.23	0.29				
	dry	0.06	0.08	0.11	0.14	0.17	0.20	0.25	WATER BLOW-OFF RANGE			
ACUA-072	wet*	0.11	0.14	0.17	0.21	0.25	0.26	0.36				
	dry	0.07	0.10	0.13	0.17	0.21	0.24	0.31				
ACUA-090	wet*		0.13	0.16	0.20	0.23	0.27	0.35				
	dry		0.10	0.13	0.17	0.20	0.23	0.26				
ACUB-090	wet*			0.04	0.07	0.10	0.12	0.15	0.18	0.22	0.27	
	dry			0.01	0.03	0.06	0.08	0.11	0.14	0.18	0.23	
ACUB-120	wet*				0.11	0.15	0.19	0.24	0.29	0.35	0.41	
	dry				0.07	0.11	0.15	0.20	0.25	0.31	0.37	
ACUB-150	wet*					0.15	0.19	0.23	0.29	0.34	0.39	
	dry					0.10	0.14	0.18	0.24	0.29	0.34	
ACUC-120	wet*	FREEZE-UP RANGE			0.04	0.06	0.09	0.11	0.13	0.16	0.18	0.21
	dry				0.01	0.03	0.06	0.08	0.10	0.13	0.15	0.18
ACUC-150	wet*					0.08	0.12	0.15	0.18	0.22	0.25	0.31
	dry					0.04	0.08	0.11	0.14	0.18	0.21	0.27
ACUC-180	wet*						0.10	0.13	0.16	0.18	0.21	0.25
	dry						0.07	0.10	0.13	0.15	0.18	0.22

NOTES: * Wet values are for operation at 45°F saturated suction temperature.
Operation is not recommended for this range of airflow.

In keeping with our policy of continuous product improvement, we reserve the right to alter, at any time, the design, construction, dimensions, weights, etc., of equipment information shown here.

Option	Description / Application	Controllers
Heating or Heating/Makeup Air ANALOG Controls		
AG1	Single-stage heating	Single-stage room thermostat, either Option CL1, CL52, or field supplied
AG2	Two-stage heating (70% and 100%)	Two-stage room thermostat, either Option CL33, or field supplied
AG3	Two-stage makeup air heating (70% and 100%)	Two-stage ductstat, 50-120°F (discharge air temperature), either Option CL33, or field supplied

Thermostats for Wall or Console Mounting**Single Stage Heating/Cooling Thermostat - Option CL1**

Non-programmable
24V Supply voltage
50° - 90°F

(Cross reference: P/N 255350)

Two Stage Heating/Cooling Thermostat - Option CL22

Non-programmable
24V Supply voltage
50° - 90°F

(Cross reference: P/N 220630)

Electronic 2-Stage Heating/Cooling Thermostat (Wall Mount Option CL33, Console Mount Option RCT5 ^A)

7-Day programmable
LCD Display
24VAC/50/60 Hz Supply
Microprocessor Control
Selectable Output Staging:
1) 1 Heat — 1 Cool
2) 1 Heat — 2 Cool
3) 2 Heat — 1 Cool
4) 2 Heat — 2 Cool
Sub/Base has Auto/Cool/Off/Heat
System switch and Auto/On (fan)
Switch

(Cross reference: P/N 221038)

Use with Remote Consoles RC1,
RC2 or RC9

Electronic Single Stage Heating/Cooling Thermostat on Panel (Wall Mount Option CL52, Console Mount Option RCT9)

5 Day/2 Day Programmable
LCD Display
(battery required)
with Fan Auto/On and
Cool/Off/Heat Switches

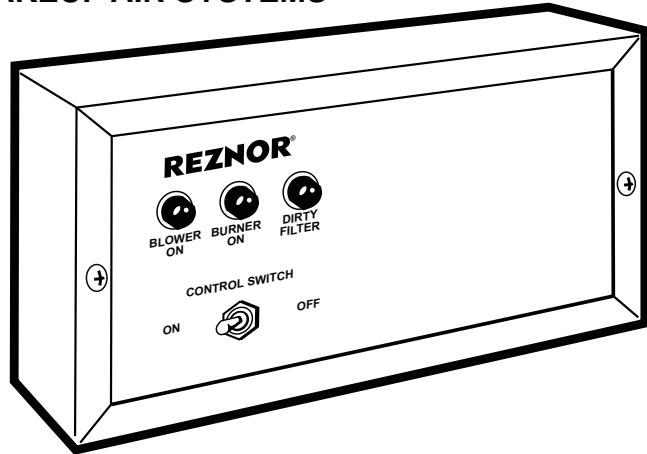
(Cross reference: P/N 220632)

Use with Remote Consoles
RC1, RC2 or RC9

^A RCT5 contains most switching functions that are likely to be needed. Any switches on the panel limit the number of lights and/or potentiometer that can be installed due to space limitations and affects control sequence. Consult your Reznor Representative.

STANDARD FEATURES

- 16 Gauge steel box
- Wiring terminal blocks
- Engraved plastic cover
- Stainless steel mounting ring
- Designed for either recessed or wall mounting

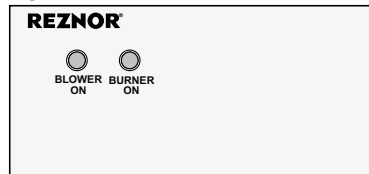


DESCRIPTION

A Reznor remote console is designed to allow remote control of the system as well as provide indicator safety lights. The console is comprised of a 16-gauge steel box with knockouts for field wiring, wiring terminal blocks suited to components, and a custom engraved plastic cover. The engraved lettering on the cover indicates the function and position of the switch and the message of the indicator light. The box may be either recessed or wall mounted. A mounted ring is included for wall mounting. In place of the standard plastic cover, an optional stainless steel cover is available (requires extended lead time).

The remote console option is available with twelve pre-selected combinations of factory-installed switches, indicator lights and controls. The available combinations of components are illustrated below. Each of the consoles may be ordered with one additional factory-mounted control. Controls available are a one- or two-stage heating thermostat, a one- two-stage heating/cooling thermostat, or a Maxitrol Temperature Selector. If the installation requires any components or component combinations that are not available with Options RC1-12, it is necessary to specify a custom-built remote console (see Remote Console Section).

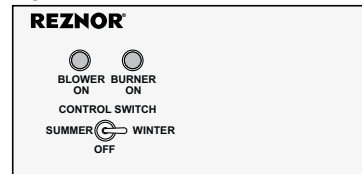
Option RC1



Lights

- Blower On
- Burner On

Option RC5



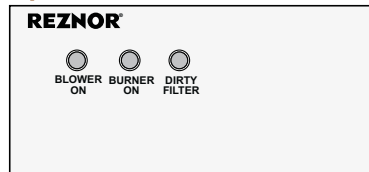
Lights

- Blower On
- Burner On

Switch

- Summer/Off/Winter

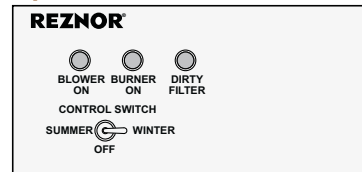
Option RC2



Lights

- Blower On
- Burner On
- Dirty Filter

Option RC6



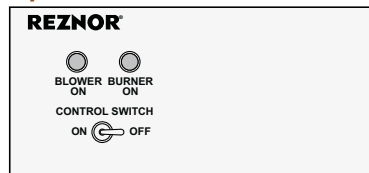
Lights

- Blower On
- Burner On
- Dirty Filter

Switch

- Summer/Off/Winter

Option RC3



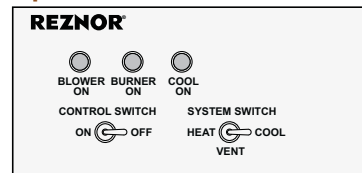
Lights

- Blower On
- Burner On

Switch

- On/Off

Option RC7



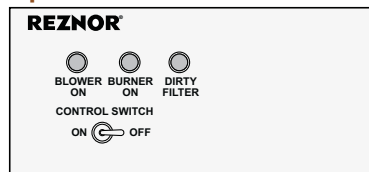
Lights

- Blower On
- Burner On
- Cool On

Switch

- On/Off
- Heat/Vent/Cool

Option RC4



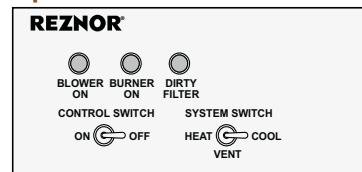
Lights

- Blower On
- Burner On
- Dirty Filter

Switch

- On/Off

Option RC8



Lights

- Blower On
- Burner On
- Dirty Filter

Switch

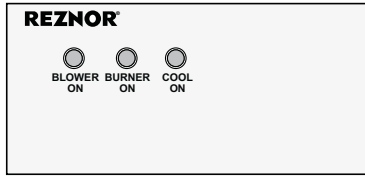
- On/Off
- Heat/Vent/Cool



REMOTE CONSOLE

OPTIONAL ON INDIRECT FIRED PACKAGED HEATING/MAKEUP AIR SYSTEMS (cont'd)

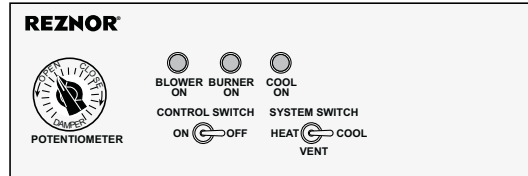
Option RC9



Lights

- Blower On
- Burner On
- Cool On

Option RC11



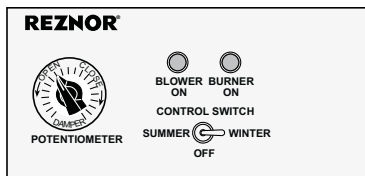
Lights

- Blower On
- Burner On
- Cool On

Switch

- On/Off
- Heat/Vent/Cool

Option RC10



Lights

- Blower On
- Burner On

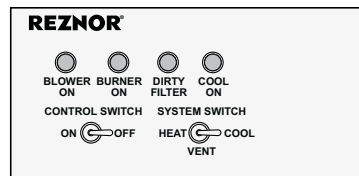
Switch

- Summer/Off/Winter

Control

- Potentiometer*

Option RC12



Lights

- Blower On
- Burner On
- Dirty Filter
- Cool On

Switch

- On/Off
- Heat/Vent/Cool

* Must order Damper Arrangement Option GE10 to get a remote potentiometer (see Air Control System section).

NOTE: To coordinate option selection, see Mixing Box Module and Air Inlet Options section for damper arrangement options and Heating and Heating/Cooling Controls section for control selection.

Remote Console Components	Function	Included Options											
		RC1	RC2	RC3	RC4	RC5	RC6	RC7	RC8	RC9	RC10	RC11	RC12
Blower On Indicator Light	Lights when blower is operating	X	X	X	X	X	X	X	X	X	X	X	X
Burner On Indicator Light	Lights when burners are lit	X	X	X	X	X	X	X	X	X	X	X	X
Dirty Filter Indicator Light	Lights when the pressure switch indicates that filters need to be cleaned or replaced	N/A	X	N/A	X	N/A	X	N/A	X	N/A	N/A	N/A	X
On/Off Control Switch	“On” position energizes the unit for thermostat control “Off” position de-energizes the unit and closes optional automatically controlled outside air dampers	N/A	N/A	X	X	N/A	N/A	X	X	N/A	N/A	X	X
Summer/Winter/Off Control Switch	“Summer” position operates the blower only “Winter” position energizes the unit for thermostat control “Off” position de-energizes the unit and closes optional automatically controlled outside air dampers	N/A	N/A	N/A	N/A	X	X	N/A	N/A	N/A	X	N/A	N/A
Heat/Vent/Cool System Switch	“Heat” position energizes the unit for thermostat control. “Vent” position operates the blower and opens automatically controlled outside air dampers “Cool” position energizes the blower, the dampers and cooling unit	N/A	N/A	N/A	N/A	N/A	N/A	X	X	N/A	N/A	X	X
Cooling Indicator Light	Lights when cooling system is operating	N/A	N/A	N/A	N/A	N/A	N/A	X	N/A	X	N/A	X	X

Console Option	Minimum No. of Wires	Console Option	Minimum No. of Wires
RC1	3	RC10	7-9
RC2	4	RC11	9-10
RC3	5-6	RC12	8
RC4	6-7	1-Stage Heating Thermostat	+2
RC5	5-6	2-Stage Heating Thermostat	+3
RC6	6-7	1-Stage Heating/Cooling Thermostat	+4
RC7	7	2-Stage Heating/Cooling Thermostat	+5
RC8	8	Maxitrol Temperature Selector	+2
RC9	4		

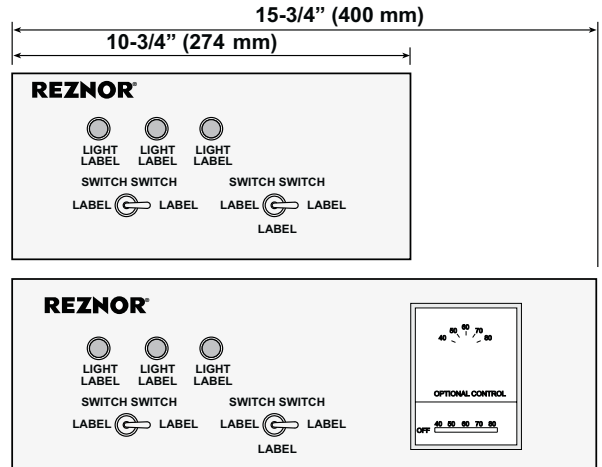
CAUTION: The minimum number of wires listed should be used only as a guideline. Do NOT use for actual wiring. The required number of wires varies depending upon the circuit and the function of the switch and can only be accurately determined from the wiring diagram designed for the specific installation.

Wires:

Console Feature	Minimum No. of Wires
1 Light	2
2 Lights	3
3 Lights	4
4 Lights	5
NOTE: For cooling light, add one wire.	
1 DPDT (3-position) Switch	4-6
1 SPDT Switch	3
1 DPST Switch	3-4
1 SPST Switch	2
1 2-Stage Thermostat	3-9
1 1-Stage Thermostat	2-8
1 Potentiometer	3

CAUTION: The minimum number of wires listed should be used only as a guideline. Do NOT use for actual wiring. The required number of wires varies depending upon the circuit and the function of the switch and can only be accurately determined from the wiring diagram designed for the specific installation.

Dimensions	Length		Height		Depth	
	in.	mm	in.	mm	in.	mm
Wall Mounted - Remote Console with wall mounting ring						
Consoles RC1-RC10 and RC12 without an optional control	10 3/4	273	7 5/8	194	2 5/8	67
Consoles RC-10 and RC12 with an optional control and RC11 with or without an optional control	15 3/4	400	7 5/8	194	2 5/8	67
Recessed - Size of the body; do not use mounting ring						
Consoles RC1-RC10, RC12 without an optional control	10 3/4	273	6 5/8	168	2 5/8	67
Consoles RC-10 and RC12 with an optional control and RC11 with or without an optional control	15 3/4	400	6 5/8	168	2 5/8	67



CUSTOM BUILT REMOTE MONITORING CONSOLE DESCRIPTION

If components or component combinations are required that are not included in the standard remote console option offering, select a custom-built remote console. Custom design the console by selecting from the light label, switch label, and control selections listed below. Specific functions of all switches and lights must be included on the order.

Custom REMCON			- C	- D	- E	- F	- G	- H	- J	- K	- M	- Z
Engraved Plastic Cover on Metal Box with Mounting Ring	Lights	Qty	2	3	4	2	3	4	2	3	4	Custom Plastic Cover (combinations or engraving not listed) - call Reznor Representative for approval and pricing.
	Switches (2 position or 3 position)	Qty	0	0	0	1	1	1	2	2	2	

LIGHT LABEL TO BE ENGRAVED ON PLASTIC COVER	
(number of selections must agree with quantity of lights available on the REMCON model ordered)	
BURNER	EB1
BLOWER	EB2
DIRTY FILTER (LIGHT with SWITCH IN UNIT)	EB3
COOL	EB4
SAFETY LOCKOUT	EB21
Custom Label - 14 characters maximum	SPEC

SWITCH LABELS TO BE ENGRAVED ON COVER			
Select REMCON Size -C through -M based on number of lights and switches selected. Switches selected cannot have duplicate function.			
SUMMER/OFF/WINTER	EB5A	ON/OFF (SPDT System Switch)	EB7X
HEAT/OFF/VENT	EB5B	SUMMER/WINTER	EB7A
ON/OFF/AUTO	EB5C	HEAT/VENT	EB7B
HEAT/VENT/COOL	EB5D	AUTO/ON	EB7C
DAY/OFF/NIGHT	EB5E	HEAT/COOL	EB7D
OCCUPIED/OFF/UNOCCUPIED	EB5F	DAY/NIGHT	EB7E
LOCAL/OFF/REMOTE	EB5G	OCCUPIED/UNOCCUPIED	EB7F
HIGH/OFF/LOW	EB5H	LOCAL/REMOTE	EB7G
HIGH/MED/LOW	EB5I	HIGH/LOW	EB7H
HAND/OFF/AUTO	EB5J	SPRAY/DRY	EB7J
HEAT/OFF/COOL	EB5K	FILL/DRAIN	EB7K
ON/OFF (DPST System Switch)	EB6X	DAMPER OPEN/CLOSED	EB7L
Custom Label - 22 characters maximum			SPEC

Provide indoor, vertical split system with gas fired, (power-vented) (separated combustion), (air conditioning and ventilation) units Reznor Model CAUA. Unit shall be certified to ANSI and C.S.A. Standards for commercial/industrial installation. Equipment shall be of size and type shown on the equipment schedule herein. Unit(s) shall comply with all specifications set out below. They shall be self-contained, factory assembled, and test fired before shipment, having a minimum efficiency of 80%. Heater(s) shall be equipped for 230 (208) Volt, single phase (208/230/460/575 Volt, three phase), 60 Hz supply voltage. Units shall include a 24 volt control voltage transformer. Unit shall be arranged for installation up to 2,000 feet (2,001 to 9,000 feet).

COOLING SECTION

(Unit shall provide air conditioning/cooling as well as heating by use of a separate Cooling Coil Cabinet that will be shipped separately for field installation - Reznor Model ACU. Cased cooling coil shall include "A" Coil with 1/3-2/3 circuitry, thermal expansion valves, stainless steel drip pan, 3/8" rifled copper tubing with aluminum fins. Cased cooling coil cabinet shall have a pre-coat RAL 9001 white paint finish to match heating section.)

HEATING SECTION

Units shall be fitted with orifices for natural gas (propane) fuel. Heat exchanger shall be tubular in shape, composed of aluminized steel (stainless steel). Burner rack shall be removable and be an assembly of inshot burners designed to provide controlled flame stability without lifting or flashback.

CABINET

Unit shall have a pre-coat RAL 9001 white paint finish. Cabinet shall be insulated for indoor installation. Units shall be configured for vertical - up - airflow. Unit shall be configured for recirculation (makeup, combination recirculation and makeup) air. Cabinet shall have corner indicators to allow for field determination of return air inlet to the rear, right side, left side, or bottom of the unit (and include an air mixing box) (filter cabinet). Cabinet shall be floor mounted (mounted on a separate air inlet). The unit shall have a vertical discharge outlet with duct flange (discharge plenum). Cabinet shall have an access panel on the front of the unit for service access.

OPTIONAL ACCESSORIES

(Cabinet shall include a mixing box with damper(s) for up to 100% outside air with selection of actuators and controls with (without) filters shipped complete for factory installation. Mixing box shall include dampers of vinyl blades and stainless steel jamb seals rated at 10 cfm/sq ft. leakage at 2.0" pressure differential. Mixing box shall have duct flanges for attaching ductwork. Mixing box shall have removable door panels for service access to filters.)

(Unit shall include a filter cabinet with 2" filters that shall be shipped separately for field installation.)

(Unit shall include a mounting base with adjustable legs that will be shipped separately for field installation. Mounting base shall consist of guarded openings [with disposable flat filters], [with permanent aluminum filters], [with pleated disposable filters].)

(Unit shall include a screened discharge plenum with openings on all four sides [blockoff plates for 2 or 3 sided discharge - field installation], blockoff plates for use with cased cooling coil cabinet - field installed.)

Unit shall be installed as a (separated combustion) power-vented unit. (Separated combustion air and exhaust air shall be vented through a single penetration in the wall or roof by means of a concentric adapter.)

CONTROLS

Controls shall include a single-stage (two-stage gas valve) (two-stage ductstat), direct spark ignition with 100% shut-off, a power venter, a combustion air pressure switch and a safety limit switch. Operation shall be controlled by an integrated circuit board that includes an LED diagnostic indicator light. The circuit board shall monitor the heater operation and indicate normal operation as well as identify any abnormalities in the control functions.

Economizer controls shall be included.

BLOWER

Blower shall be centrifugal type, forward curved, Class 1. Blower motor shall be 230 volt, open/dripproof, direct drive, with internal overload protection. (Belt drive shall be adjustable for up to 2.0" ESP).

(Unit shall be equipped for vibration isolation.)

WARRANTY

Units shall have a 5 year limited warranty against defective operating components and 10 year limited warranty on the heat exchanger.

CERTIFICATIONS

Units shall be design-certified by the Canadian Standards Association (ANSI Z83.8-1996 and C.G.A. 2.6-M96 for industrial/commercial applications. Units shall be manufactured by an experienced company with at least 50 years in the commercial/industrial HVAC industry.



DESCRIPTION

The M series condensing units are optimized for use with Reznor Model CAUA or any of the PREEVA series of indirect fired HVAC systems. The M series can be used with other Reznor equipment with appropriate evaporator coils or with other brand air handlers when properly selected, matched and installed.

The M series utilizes non-ozone depleting R-410A refrigerant. Dual circuits and scroll compressors are standard. The system is designed to achieve three stages of cooling. The cooling capacities range from 5 to 20 tons at full load.

The three-stage (1/3, 2/3, 3/3) design makes the M series/CAUA combination very efficient in overall seasonal energy use. This is due to the fact that while applications are generally sized to design conditions, a major portion of the total operation time is at conditions less than design. In addition to the added energy efficiency, other advantages include smoother load response across the range of operating conditions. Plus fewer on/off cycles, as compared to conventional single or two stage systems, results in reduced cycling and improves reliability. For more information see the "Cooling Advantages" section of this catalog.

Besides the superior operational design, the M series is also designed in an attractive cabinet, optimized for performance and overall size. The cabinet is constructed of G-90 coated material with a primer on the interior surfaces. A pre-coat off-white gloss finish is applied so the unit will stay cleaner, brighter and better looking for a long period of time. Complete access to all electric and compressor parts is provided to enhance installation and service ease.

To further enhance performance and corrosion resistance the M series uses the latest aluminum micro-channel heat transfer technology. This rugged and proven technology is used in automotive AC condensing coils and provides superior performance with lower weight.

For information on selecting the right size condensing section, please use appropriate Reznor software (RezPro® Toolbox) or contact your Reznor Representative by calling 800-695-1901.

STANDARD FEATURES

- Non-ozone depleting, R-410A refrigerant
- Normal operating range 55° to 115°F ambient
- Dual compressor system to provide 3 stage capacity control - 1/3, 2/3 or full
- Pre-coat off-white gloss cabinet finish, G-90 coated material on exterior surface and primer on interior surface, 60 gloss, meets ASTM B117 specification for salt spray to 1,000 hours
- Service access door
- Corrosion resistant, easily cleanable, aluminum micro-channel condenser coil
- Liquid line filter driers - shipped loose with unit for field installation
- Refrigerant receiver for each circuit
- Fork lift openings built into the heavy gauge base
- 208-230/3/60 unit supply voltage (20 ton unit available in 460/3/60 only)
- 24 Volt Controls
- 75VA transformer with manual reset circuit breaker
- Isolation relay on control circuit
- High and low pressure switches
- Service valves on liquid and suction lines
- Angled condenser coil to prevent damage
- UL Listed for use in U.S. and Canada (UL 1995 Heating and Cooling Equipment)
- CE Approved to ENV 327 and EuroVent 7.1 and 8.1

FACTORY-INSTALLED OPTIONS

- 5 minute anti-short cycle timer
- Optional five (5) year limited warranty on compressors available
- ElectroFin™ condenser coil corrosion protection coating
- Condenser coil guard
- 460/3/60, 575/3/60, 220/3/50, 400/3/50 unit supply voltage
- Internal capacity control for circuit A only or circuits A and B
- Interfaces for 3 stages of cooling to modulating signal from room thermostat (Option CL36)

FIELD-INSTALLED OPTIONS

- Fusible and non-fusible disconnect switches

ElectroFin™ is a registered trademark of AST ElectroFin, Inc.

TECHNICAL DATA

MASA Size		60	90	120	150	180	240
Nominal Capacity (Tons)		5	7.5	10	12.5	15	20
Heat Rejection Capacity (Btu/h)	Circuit A	21,300	31,200	41,800	57,200	64,300	92,000
	Circuit B	38,000	59,500	84,400	107,300	135,200	154,000
Fan Motor Power (W)		345	345	690	690	690	690
EER		11.2	13.0	12.5	12.7	11.8	11.5
Operating Weight	lbs	440	461	632	699	749	771
	(kg)	(200)	(209)	(287)	(317)	(340)	(350)
Connection Outlet Sizes - Condensing Unit (inches)	Circuit A - Suction Line	7/8					
	Circuit B - Suction Line	7/8			1 3/8		
	Circuit A - Liquid Line	1/2					
	Circuit B - Liquid Line	1/2					5/8
Filter Drier Connection Size (inches)	Circuit A - Liquid Line	1/2					7/8
	Circuit B - Liquid Line	1/2					1 3/8

Condensing unit rating are at 45°F SST and 95°F entering air temperature
Unit rated in accordance with ARI 365.

NOTE: For condenser performance data, contact your Reznor Agent or go to www.RezSpec.com.

ELECTRICAL DATA

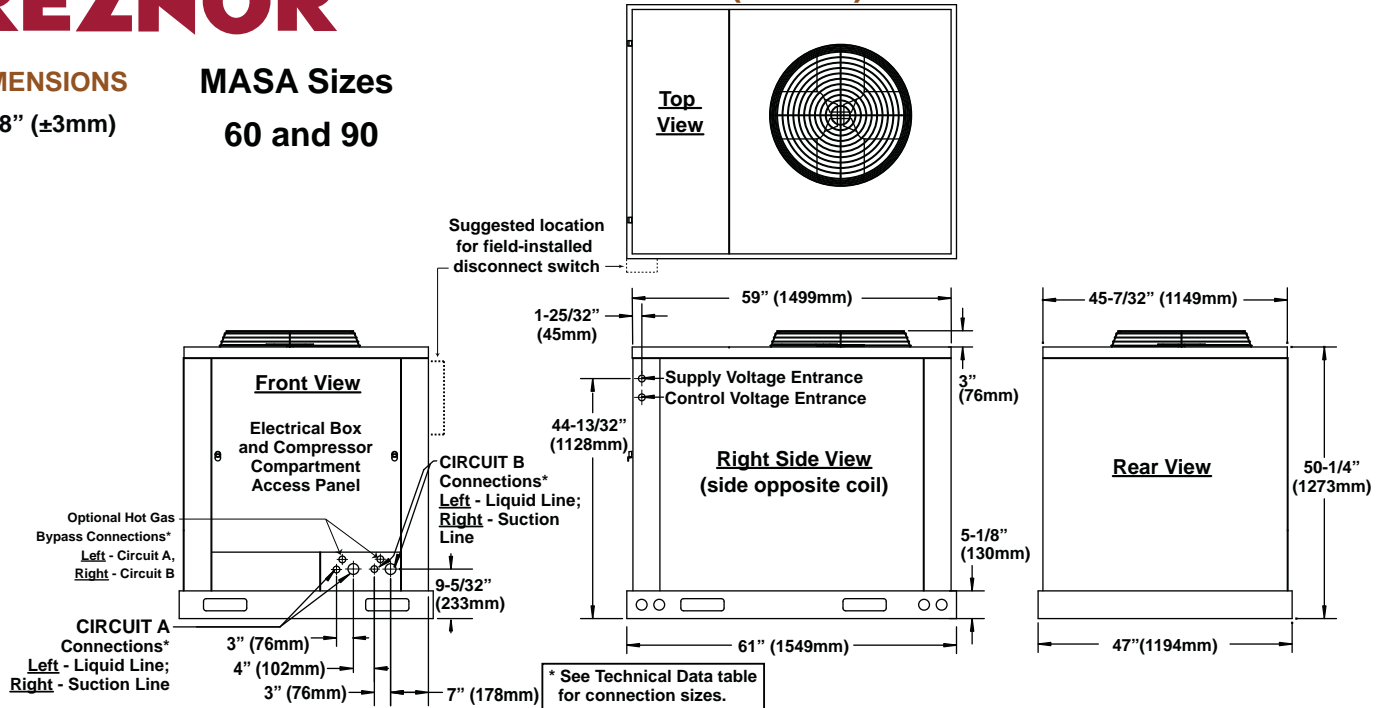
MASA Size	Voltage	Voltage Range		Compressor Circuit A		Compressor Circuit B		Condenser Fan Motors		Power Supply	
	Volts-Ph-Hz	Min	Max	RLA	LRA	RLA	LRA	Qty	FLA (ea.)	MCA	MOP
060	208/230-3-60	187	253	8.6	55.0	14.6	83.1	1	4.0	30.9	45
	460-3-60	414	506	4.4	22.4	6.8	41.0		2.0	14.9	20
	220-3-50	198	242	8.6	56.0	14.1	80.7		3.8	30.0	40
	400-3-50	360	440	4.4	24.0	6.7	43.0		1.9	14.7	20
090	208/230-3-60	187	253	10.0	71.0	22.9	155.0	1	4.0	42.6	60
	460-3-60	414	506	6.3	38.0	10.7	75.0		2.0	21.7	30
	220-3-50	198	242	10.4	78.0	22.9	170.0		3.8	42.8	60
	400-3-50	360	440	5.9	38.0	10.7	74.0		1.9	21.2	30
120	208/230-3-60	187	253	14.6	83.1	27.9	164.0	2	4.0	57.5	80
	460-3-60	414	506	6.8	41.0	13.6	100.0		2.0	27.8	50
	220-3-50	198	242	14.1	80.7	27.9	179.0		3.8	56.6	80
	400-3-50	360	440	6.7	43.0	13.6	101.0		1.9	27.5	35
150	208/230-3-60	187	253	20.2	137.0	33.6	225.0	2	4.0	70.2	100
	460-3-60	414	506	10.0	62.0	18.6	114.0		2.0	37.3	50
	575-3-60	523	632	7.6	50.0	13.6	80.0		1.5	27.6	40
	220-3-50	198	242	20.2	150.0	33.6	170.0		3.8	69.8	100
	400-3-50	360	440	10.0	64.0	18.6	111.0		1.9	37.1	50
180	208/230-3-60	187	253	22.9	155.0	37.1	239.0	2	4.0	77.3	100
	460-3-60	414	506	10.7	75.0	20.0	125.0		2.0	39.7	60
	575-3-60	523	632	8.5	54.0	14.3	80.0		1.5	29.4	40
	220-3-50	198	242	22.9	170.0	38.6	239.0		3.8	78.8	100
	400-3-50	360	440	10.7	74.0	20.0	118.0		1.9	39.5	50
240	208/230-3-60	187	253	27.9	164.0	57.1	300.0	2	4.0	107.3	150
	460-3-60	414	506	13.6	100.0	25.7	150.0		2.0	49.7	70
	575-3-60	523	632	10.0	78.0	22.1	109.0		1.5	40.6	60
	220-3-50	198	242	27.9	179.0	52.1	295.0		3.8	100.6	125
	400-3-50	360	440	13.6	101.0	25.0	140.0		1.9	48.7	70

DIMENSIONS

±1/8" (±3mm)

MASA Sizes

60 and 90



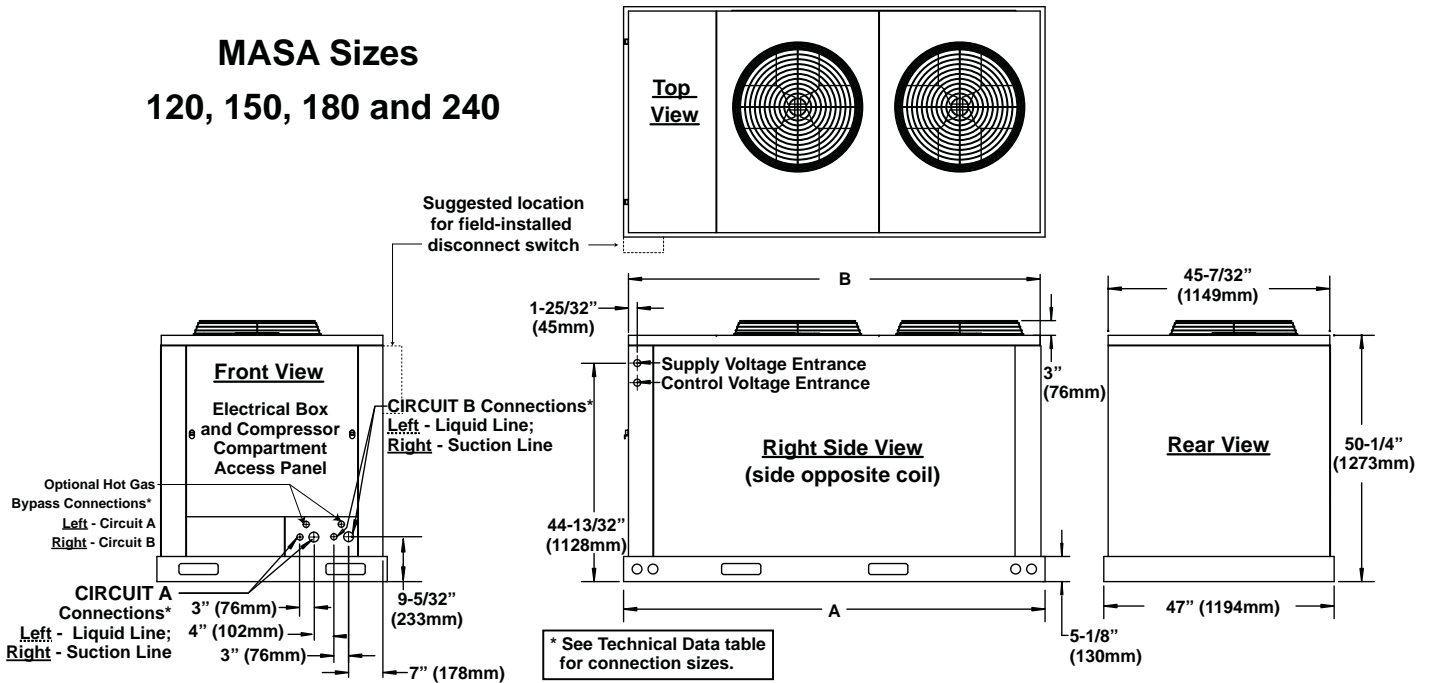
CLEARANCES

The recommended service clearance is 48" (1,219mm). The recommended clearance applies to all sizes of the Reznor condensing unit. Inlet airflow and top discharge airflow **MUST** be unrestricted. The **MANDATORY** top discharge clearance is 60" (1,524mm).

For details and exceptions, see the Installation Operation & Maintenance Manual - Form No. RZ-I-COND available at www.RezSpec.com.

MASA Sizes

120, 150, 180 and 240



MASA	A		B	
Sizes	Inches	(mm)	Inches	(mm)
120, 150	86	(2,184)	84	(2,134)
180, 240	110	(2,794)	108	(2,743)

REZNOR® OPTIONAL FEATURE AVAILABILITY

Option Code and Description

UNIT OPTIONS

SUPPLY VOLTAGE OPTIONS

- AK7 - 460/3/60
- AK8 - 575/3/60
- AK12 - 400/3/50
- AK20 - 208-230/3/60
- AK21 - 220/3/50

SAFETY CONTROL

- CUB1 - Fixed timer - 5 minute anti-short cycle timer

CAPACITY CONTROL OPTIONS

- CUG2 - Hot gas bypass on one circuit ^A
- CUG3 - Hot gas bypass on both circuits ^A
- CUG4 - Internal capacity control on 2/3 circuit only ^B
- CUG5 - Internal capacity control on both circuits ^B

THERMOSTAT INTERFACE OPTION

- BH12 - Interfaces 3 stages of cooling to modulating signal from room thermostat (Reznor Option CL36)

CONDENSER COIL OPTIONS

- EP2 - Condenser coil ElectroFin™ coating for corrosion protection
- AZ12 - Condenser coil guard

WARRANTY OPTION

- XW1 - Five (5) year limited compressor warranty

DISCONNECT SWITCH OPTIONS

- CP__ - A variety of disconnect sizes approved for outdoor use in the U.S. or Canada in sizes ranging from 30 amp to 200 amp ^C

^A Requires hot gas bypass (ASC) fitting(s) on Evaporator and field supplied connection line(s). Maximum recommended line length is 30 feet.

^B Suction line cannot be larger than 7/8" for 60 to 120 or 1-1/8" for 150 to 240.

^C Disconnect selection must be in accordance with Local Code Requirements.

R-410A THERMAL EXPANSION VALVES

Thermal Expansion Valves for Split System								
Circuit Capacity*	Distributor Connection Size							
	5/8"		7/8"		1-1/8"		1-3/8"	
Max. MBH	Opt	Capacity	Opt	Capacity	Opt	Capacity	Opt	Capacity
1.82	T41A	1.5 Tons	T41B	1.5 Tons				
2.39	T42A	2 Tons	T42B	2 Tons				
3.32	T43A	3 Tons	T43B	3 Tons				
4.36	T44A	4 Tons	T44B	4 Tons	T44C	4 Tons		
6.23			T46B	6 Tons	T46C	6 Tons		
8.30			T48B	8 Tons	T48C	8 Tons	T48D	8 Tons
12.60			T4EB	15 Tons	T4EC	15 Tons	T4ED	15 Tons

* Based on 40°F evaporator temperature with 120 psi pressure drop (across the valve)

Sound Power Level

MASA Model	Component		DBA Level/Avg	Avg. Sound Pressure Level (Lp) ^A
	ID	Model		
060	Comp. A	ZP20K	70.5	80.7
	Comp. B	ZP39K	73.5	
	Condenser Fan 1	TNT2604-21	85.0	
	Condenser Fan 2			
090	Comp. A	ZP29K	71.5	81.0
	Comp. B	ZP57K	76.5	
	Condenser Fan 1	TNT2604-21	85.0	
	Condenser Fan 2			
120	Comp. A	ZP39K	73.5	82.5
	Comp. B	ZP83K	77.5	
	Condenser Fan 1	TNT2604-21	85.0	
	Condenser Fan 2	TNT2604-21	85.0	
150	Comp. A	ZP54K	74.5	82.7
	Comp. B	ZP103K	79.5	
	Condenser Fan 1	TNT2604-21	85.0	
	Condenser Fan 2	TNT2604-21	85.0	
180	Comp. A	ZP57K	76.5	83.1
	Comp. B	ZP120K	81.5	
	Condenser Fan 1	TNT2604-21	85.0	
	Condenser Fan 2	TNT2604-21	85.0	
240	Comp. A	ZP83K	77.5	83.4
	Comp. B	ZP154K	82.5	
	Condenser Fan 1	TNT2604-21	85.0	
	Condenser Fan 2	TNT2604-21	85.0	

^A Average Sound Pressure Level reflects a measurement of 5 feet from the unit and is expressed in decibels (dB).

Provide a condensing section for a split system as Reznor[®] brand equipment. The units shall be the Model MASA designed for outdoor mounting. Unit shall be compatible with Reznor split system.

Unit shall use non-ozone depleting, R-410A Refrigerant.

Unit shall have dual circuits with independent scroll compressors capable of operating in stages to operate at 1/3, 2/3 and 3/3 capacity as needed. Condensing section to be shipped pre-charged with nitrogen. Unit shall have an angled aluminum micro-channel type condensing coil (with an ElectroFin™ coating for protection from corrosion). (A coil guard will be included for protecting the condensing section.) Dual circuits shall have independent liquid line receivers.

All units shall be equipped for use with (208-230/3/60) (480/3/60) (575/3/60) (220/3/50) (400/3/50) supply voltage (with field-installed, [fusible] [non-fusible] disconnect switch). A 75 VA transformer with manual circuit breaker shall be included to provide independent secondary control voltage. Control circuit shall have isolation relay.

The unit shall have a corrosion protective pre-coat RAL 9001 white paint finish. Finish shall be a minimum 60 gloss with G90 substrate and meet ASTM B117 specification for salt spray to 1,000 hours. Inside cabinet shall also have corrosion protective finish.

Heavy gauge metal base cabinet will have fork lift openings to assist in installation.

All circuits shall have high and low pressure switches and liquid receivers. Service valves with gauge ports shall be supplied on liquid and suction lines. Liquid line filter driers shall be shipped loose with the unit for field installation.

Additional options to include: (5 minute anti-short-cycle timer).

See specific information for sizes and capacities.

Product manufacturer must have minimum of 40 years of experience with manufacturing HVAC Equipment.

MASA - 060											
SST (°F)	Circuit	Description	Ambient (°F)								
			60	70	80	85	90	95	100	105	115
30	A	TC (Btu/H)	19600	17784	16272	15608	14996	14429	13904	13415	12533
		SDT (°F)	66.0	67.1	76.5	76.1	79.2	84.3	93.0	98.7	104.8
		TC (Btu/H)	33360	30040	27809	26830	26200	25549	25042	24475	23616
	B	SDT (°F)	75.9	76.6	82.9	88.9	98.0	100.6	102.1	108.6	111.1
		TC (Btu/H)	52961	47824	44081	42438	41195	39979	38945	37889	36149
		kW	2.6	2.9	3.0	3.5	3.7	4.3	4.4	4.8	6.6
35	A	TC (Btu/H)	22565	20527	18825	18075	17382	16740	16144	15589	14585
		SDT (°F)	75.1	77.2	85.8	87.4	91.4	96.8	104.5	110.2	117.2
		TC (Btu/H)	38404	34742	32257	31148	30451	29718	29150	28500	27523
	B	SDT (°F)	84.1	86.6	94.0	100.0	108.1	112.3	115.6	121.7	125.3
		TC (Btu/H)	60969	55269	51082	49223	47833	46459	45294	44089	42108
		kW	2.9	3.2	3.4	3.9	4.2	4.7	4.8	5.2	6.7
40	A	TC (Btu/H)	25443	23208	21332	20503	19737	19025	18363	17745	16626
		SDT (°F)	83.1	86.4	94.1	97.3	101.9	107.3	113.7	119.2	126.8
		TC (Btu/H)	43300	39357	36652	35506	34670	33862	33193	32511	31421
	B	SDT (°F)	90.7	95.5	104.0	109.7	116.6	121.7	126.4	131.8	136.4
		TC (Btu/H)	68743	62564	57984	56010	54406	52887	51556	50256	48048
		kW	3.2	3.5	3.8	4.3	4.6	5.0	5.2	5.6	6.7
45	A	TC (Btu/H)	28235	25825	23794	22893	22059	21283	20560	19884	18658
		SDT (°F)	90.0	94.6	101.3	105.5	110.1	115.1	120.2	125.2	133.4
		TC (Btu/H)	48048	43884	40993	39851	38855	37980	37202	36506	35312
	B	SDT (°F)	95.9	103.3	112.6	117.9	123.3	128.7	133.9	138.4	143.9
		TC (Btu/H)	76283	69709	64787	62744	60914	59262	57762	56390	53969
		kW	3.4	3.8	4.2	4.6	4.9	5.3	5.5	5.9	6.6
50	A	TC (Btu/H)	30941	28380	26210	25245	24349	23514	22734	22005	20678
		SDT (°F)	95.7	101.4	107.4	111.5	115.5	119.6	123.5	127.8	136.4
		TC (Btu/H)	52648	48325	45282	44048	43008	42072	41247	40486	39193
	B	SDT (°F)	99.5	110.0	119.8	124.3	128.4	133.0	137.4	140.9	147.1
		TC (Btu/H)	83589	76704	71492	69293	67357	65866	63982	62491	59872
		kW	3.5	4.0	4.5	4.8	5.1	5.4	5.7	6.0	6.7
55	A	TC (Btu/H)	33561	30871	28580	27558	26606	25718	24887	24109	22689
		SDT (°F)	99.9	106.9	112.4	115.0	117.5	120.2	123.2	126.6	135.4
		TC (Btu/H)	57101	52678	49517	48246	47128	46137	45250	44451	43067
	B	SDT (°F)	101.4	115.5	125.4	128.9	131.8	134.2	136.4	138.7	145.3
		TC (Btu/H)	90662	83549	78097	75804	73735	71855	70137	68559	65756
		kW	3.6	4.2	4.9	5.1	5.3	5.5	5.9	6.1	6.6

MASA - 090											
SST (°F)	Circuit	Description	Ambient (°F)								
			60	70	80	85	90	95	100	105	115
30	A	TC (Btu/H)	28596	25891	22281	21777	20581	20301	18916	18602	19246
		SDT (°F)	80.1	78.5	86.9	84.8	71.4	90.8	83.2	103.7	120.1
		TC (Btu/H)	50163	48892	46040	44937	43271	41903	39806	38139	35180
	B	SDT (°F)	62.2	74.8	89.3	97.0	89.2	92.6	92.8	98.4	117.0
		TC (Btu/H)	78759	74783	68321	66714	63851	62204	58722	56742	54426
		kW	3.0	3.7	4.4	4.9	5.3	5.8	6.2	6.8	8.7
35	A	TC (Btu/H)	32732	29971	26148	25584	24255	23874	22286	21809	22112
		SDT (°F)	84.7	86.1	93.4	94.0	87.2	101.4	98.0	112.7	127.6
		TC (Btu/H)	58673	56907	53375	51849	49789	48016	45596	43626	40270
	B	SDT (°F)	74.8	86.4	99.1	105.3	102.0	105.5	107.4	112.4	127.3
		TC (Btu/H)	91405	86878	79523	77434	74044	71891	67881	65434	62382
		kW	3.5	4.2	4.9	5.4	5.8	6.3	6.7	7.3	8.8
40	A	TC (Btu/H)	36688	33983	30059	29442	27999	27502	25718	25045	24880
		SDT (°F)	87.9	92.3	98.4	101.6	100.9	110.1	110.5	119.7	132.8
		TC (Btu/H)	67227	64884	60612	58597	56110	53880	51143	48863	45140
	B	SDT (°F)	86.9	97.0	107.3	111.9	112.6	116.1	119.3	123.7	135.1
		TC (Btu/H)	103915	98866	90671	88039	84109	81382	76861	73908	70020
		kW	4.0	4.7	5.3	5.8	6.2	6.7	7.1	7.6	8.9
45	A	TC (Btu/H)	40464	37927	34014	33350	31813	31183	29212	28312	27550
		SDT (°F)	90.1	96.9	102.3	107.5	111.3	116.7	119.8	124.7	135.9
		TC (Btu/H)	75823	72822	67753	65179	62232	59495	56450	53852	49788
	B	SDT (°F)	98.1	106.3	113.8	117.1	120.5	123.9	127.8	131.6	140.3
		TC (Btu/H)	116288	110750	101767	98530	94045	90679	85662	82164	77339
		kW	4.5	5.1	5.7	6.2	6.5	7.0	7.4	7.9	8.9
50	A	TC (Btu/H)	44060	41805	38012	37310	35697	34919	32768	31610	30124
		SDT (°F)	91.7	100.0	105.4	111.5	117.2	120.9	125.1	127.9	137.5
		TC (Btu/H)	84463	80722	74798	71597	68157	64862	61515	58592	54216
	B	SDT (°F)	107.9	114.0	118.7	121.1	125.1	128.3	131.9	135.3	143.0
		TC (Btu/H)	128523	122527	112810	108907	103853	99781	94283	90202	84340
		kW	5.1	5.6	6.0	6.4	6.8	7.2	7.5	8.0	8.9
55	A	TC (Btu/H)	47477	45615	42055	41320	39650	38709	36387	34937	32599
		SDT (°F)	93.2	101.5	108.0	113.5	117.4	122.6	125.3	129.4	138.0
		TC (Btu/H)	93145	88584	81745	77850	73883	69979	66338	63084	58423
	B	SDT (°F)	116.0	119.7	121.8	124.2	125.9	128.7	130.6	134.0	143.2
		TC (Btu/H)	140622	134199	123800	119169	113533	108688	102725	98021	91022
		kW	5.6	5.9	6.3	6.6	6.9	7.2	7.5	7.9	9.0

Model MASA

MASA - 120											
SST (°F)	Circuit	Description	Ambient (°F)								
			60	70	80	85	90	95	100	105	115
30	A	TC (Btu/H)	36568	35342	33029	31654	30231	30010	28770	26644	25923
		SDT (°F)	92.1	97.4	107.0	108.8	110.6	111.1	112.7	119.9	114.7
	B	TC (Btu/H)	90926	79219	67920	64998	62330	60365	58323	56471	54324
		SDT (°F)	72.1	84.5	96.9	104.7	110.4	114.6	121.6	122.4	135.2
	Total	TC (Btu/H)	127494	114561	100949	96652	92562	90375	87093	83115	80247
		kW	6.4	7.6	8.1	9.1	9.6	9.8	10.4	10.9	11.5
35	A	TC (Btu/H)	42355	40256	37604	36377	35069	34136	32556	31156	29159
		SDT (°F)	92.0	99.8	107.8	110.5	113.8	115.1	120.2	124.4	129.1
	B	TC (Btu/H)	96595	86567	77109	73629	70622	68279	65775	63620	60446
		SDT (°F)	86.7	97.0	106.9	111.4	115.9	119.9	124.7	129.2	137.1
	Total	TC (Btu/H)	138949	126823	114713	110005	105691	102415	98331	94775	89605
		kW	6.6	7.7	8.6	9.2	9.6	9.8	10.6	11.4	12.0
40	A	TC (Btu/H)	47300	44870	41870	40556	39116	38031	37412	34671	32328
		SDT (°F)	91.4	101.4	107.4	112.0	116.5	118.9	125.6	130.1	138.6
	B	TC (Btu/H)	96603	91312	85238	82246	79282	76512	73520	70708	65680
		SDT (°F)	89.6	100.3	108.1	114.0	118.7	122.9	127.8	133.9	140.8
	Total	TC (Btu/H)	143903	136182	127108	122802	118398	114543	110932	105380	98008
		kW	6.8	7.7	8.9	9.2	9.6	9.8	10.7	11.7	12.3
45	A	TC (Btu/H)	51804	49279	45933	44418	42763	41755	39580	37715	35285
		SDT (°F)	90.5	102.4	106.4	113.4	118.8	122.8	129.4	136.9	144.5
	B	TC (Btu/H)	93183	94538	92416	90273	87555	84391	80923	77308	70339
		SDT (°F)	97.8	107.5	109.6	115.5	120.8	125.2	131.1	136.8	145.8
	Total	TC (Btu/H)	144988	143817	138349	134691	130318	126146	120503	115023	105624
		kW	7.1	7.9	9.2	9.4	9.8	10.1	10.9	12.0	12.6
50	A	TC (Btu/H)	57435	53781	50146	48849	47526	45492	45867	42325	37375
		SDT (°F)	89.4	103.0	107.7	115.4	120.8	127.8	131.8	135.7	146.9
	B	TC (Btu/H)	101149	101666	98757	96090	92929	89438	85734	82095	75677
		SDT (°F)	105.8	114.4	121.5	125.0	128.4	132.4	134.8	138.4	143.9
	Total	TC (Btu/H)	158584	155448	148903	144939	140455	134930	131601	124420	113052
		kW	7.5	8.3	9.5	9.8	10.2	10.8	11.3	12.1	12.9
55	A	TC (Btu/H)	62604	58097	54174	52964	51864	49077	48261	46419	39345
		SDT (°F)	88.2	103.3	108.5	117.3	122.7	133.0	133.2	135.4	148.1
	B	TC (Btu/H)	106291	107463	104368	101564	98159	94365	90424	86601	80514
		SDT (°F)	118.8	125.3	129.9	132.9	134.9	138.7	138.6	139.0	143.0
	Total	TC (Btu/H)	168894	165560	158542	154527	150023	143442	138685	133020	119859
		kW	8.1	9.1	10.0	10.7	11.1	12.1	12.1	12.2	13.4

MASA - 150											
SST (°F)	Circuit	Description	Ambient (°F)								
			60	70	80	85	90	95	100	105	115
30	A	TC (Btu/H)	71730	65100	56415	54083	50514	48344	44441	42227	39943
		SDT (°F)	50.7	63.8	83.6	78.2	83.1	79.5	89.2	95.3	111.4
	B	TC (Btu/H)	115376	100764	81174	87647	84267	98601	81071	82201	83048
		SDT (°F)	60.9	63.6	65.9	71.6	75.5	82.4	85.2	92.0	110.1
	Total	TC (Btu/H)	187106	165864	137590	141730	134781	146946	125512	124428	122991
		kW	4.5	5.2	5.6	6.4	7.1	8.1	8.9	10.2	13.5
35	A	TC (Btu/H)	73353	67711	60094	57492	54092	51674	48218	46042	43806
		SDT (°F)	61.3	74.3	92.8	89.2	94.2	92.0	101.3	107.2	122.3
	B	TC (Btu/H)	124934	112016	94345	97624	93470	101990	88063	87582	87768
		SDT (°F)	73.4	76.6	79.1	84.9	88.7	95.4	98.1	104.5	121.5
	Total	TC (Btu/H)	198287	179727	154439	155116	147562	153664	136281	133625	131574
		kW	5.9	6.7	7.2	8.0	8.7	9.7	10.5	11.7	14.8
40	A	TC (Btu/H)	74707	69923	63317	60471	57251	54606	51613	49495	47328
		SDT (°F)	72.4	84.7	100.6	99.6	104.5	104.4	112.6	118.0	131.1
	B	TC (Btu/H)	133502	122451	107192	106898	101981	104843	94357	92299	90882
		SDT (°F)	86.6	90.4	92.9	98.6	102.0	108.3	110.6	116.3	131.0
	Total	TC (Btu/H)	208209	192375	170509	167369	159232	159449	145971	141793	138210
		kW	7.6	8.3	9.0	9.7	10.4	11.3	12.1	13.2	15.9
45	A	TC (Btu/H)	75861	71832	66176	63106	60071	57217	54692	52643	50561
		SDT (°F)	84.2	95.1	107.0	109.4	114.0	116.6	123.1	127.7	137.6
	B	TC (Btu/H)	141252	132174	118196	115557	109892	107290	100072	96483	92765
		SDT (°F)	100.4	104.9	107.4	112.6	115.5	121.0	122.8	127.3	138.5
	Total	TC (Btu/H)	217113	204006	184372	178663	169963	164507	154764	149126	143326
		kW	9.5	10.2	11.0	11.6	12.2	13.0	13.7	14.6	16.8
50	A	TC (Btu/H)	76861	73501	68737	65462	62611	59565	57504	55533	53547
		SDT (°F)	96.6	105.4	112.1	118.6	122.7	128.6	132.8	136.3	141.9
	B	TC (Btu/H)	148316	141270	131871	123672	117278	109421	105297	100232	93792
		SDT (°F)	114.9	120.1	122.5	127.0	129.2	133.5	134.6	137.5	144.0
	Total	TC (Btu/H)	225176	214771	200608	189134	179888	168986	162801	155765	147339
		kW	11.5	12.2	13.1	13.6	14.2	14.8	15.3	15.9	17.4
55	A	TC (Btu/H)	77738	74978	71050	67585	64916	61692	60087	58200	56316
		SDT (°F)	109.5	115.7	115.8	127.3	130.6	140.4	141.7	143.7	144.1
	B	TC (Btu/H)	154794	149807	144932	131301	124197	111299	110103	103619	94338
		SDT (°F)	130.1	136.0	138.2	141.8	143.0	145.8	146.0	146.9	147.6
	Total	TC (Btu/H)	232532	224785	215981	198886	189113	172991	170190	161820	150654
		kW	13.8	14.5	15.4	15.8	16.2	16.6	16.9	17.3	17.7

REZNOR[®] PERFORMANCE SUMMARIES (cont'd)

Model MASA

MASA - 180											
SST (°F)	Circuit	Description	Ambient (°F)								
			60	70	80	85	90	95	100	105	115
30	A	TC (Btu/H)	71840	58598	50705	47287	45461	43445	42021	40219	37748
		SDT (°F)	63.7	74.1	84.5	89.7	95.1	100.4	105.8	119.4	126.4
	B	TC (Btu/H)	148606	123345	108097	101573	98068	94279	91636	88344	83954
		SDT (°F)	76.0	92.5	92.7	95.5	101.1	110.6	121.7	134.0	141.1
	Total	TC (Btu/H)	220446	181943	158802	148859	143529	137724	133657	128564	121701
		kW	6.8	7.8	9.9	11.4	12.7	13.3	15.2	17.2	18.9
35	A	TC (Btu/H)	79104	65880	57900	54429	52541	50468	48984	47129	44553
		SDT (°F)	82.3	93.3	103.3	107.9	112.2	116.2	119.9	123.3	129.0
	B	TC (Btu/H)	163542	138525	122993	116264	112461	108381	105419	101833	96819
		SDT (°F)	90.4	98.9	107.6	112.4	117.6	123.2	129.5	136.4	142.8
	Total	TC (Btu/H)	242645	204405	180893	170693	165002	158849	154403	148962	141372
		kW	9.4	11.1	12.7	13.8	14.7	15.2	16.4	17.8	19.0
40	A	TC (Btu/H)	85016	72451	64737	61362	59483	57431	55939	54101	51509
		SDT (°F)	91.5	100.6	108.9	112.9	116.8	120.7	124.7	126.3	134.8
	B	TC (Btu/H)	175652	152162	136998	130317	126297	122024	118777	114971	109363
		SDT (°F)	104.7	106.9	115.5	118.7	122.8	127.6	132.5	137.7	143.1
	Total	TC (Btu/H)	260668	224613	201734	191679	185779	179455	174716	169072	160872
		kW	9.4	12.1	13.6	14.6	15.4	15.8	16.7	18.2	19.2
45	A	TC (Btu/H)	89578	78313	71216	68087	66285	64334	62885	61136	58615
		SDT (°F)	97.2	102.8	108.5	111.6	115.2	119.4	124.2	129.9	144.4
	B	TC (Btu/H)	184936	164256	150109	143731	139576	135209	131711	127757	121587
		SDT (°F)	94.6	106.2	116.6	121.4	125.8	130.0	133.9	137.5	143.7
	Total	TC (Btu/H)	274514	242569	221326	211818	205861	199543	194596	188893	180201
		kW	10.2	14.4	15.5	16.2	16.7	16.9	16.9	18.4	19.3
50	A	TC (Btu/H)	92789	83464	77338	74603	72948	71178	69823	68233	65871
		SDT (°F)	122.7	128.1	131.5	132.7	133.6	134.5	135.3	135.5	139.4
	B	TC (Btu/H)	191395	174808	162328	156506	152299	147935	144221	140193	133489
		SDT (°F)	132.6	134.5	136.4	137.6	138.6	139.3	141.3	143.9	146.5
	Total	TC (Btu/H)	284184	258272	239667	231109	225247	219113	214044	208425	199360
		kW	15.9	16.9	17.4	17.7	17.9	18.0	18.5	19.0	19.3
55	A	TC (Btu/H)	94649	87905	83103	80910	79472	77962	76752	75392	73277
		SDT (°F)	139.5	142.3	142.1	141.3	140.2	138.9	137.6	144.4	140.9
	B	TC (Btu/H)	195027	183817	173655	168643	164465	160202	156306	152277	145071
		SDT (°F)	132.6	134.5	136.4	137.6	138.6	139.3	141.3	143.9	146.5
	Total	TC (Btu/H)	289676	271722	256759	249553	243937	238164	233058	227668	218348
		kW	18.4	19.4	19.3	19.2	19.1	19.0	19.2	19.4	19.3

MASA - 240											
SST (°F)	Circuit	Description	Ambient (°F)								
			60	70	80	85	90	95	100	105	115
30	A	TC (Btu/H)	87462	82390	78155	76267	74504	72848	71288	69811	67078
		SDT (°F)	89.3	97.9	108.6	112.4	118.6	123.3	133.6	142.8	165.2
	B	TC (Btu/H)	123297	124796	124881	124900	124913	124920	124925	124927	124930
		SDT (°F)	94.4	103.0	113.2	117.0	122.6	127.0	136.0	144.1	163.8
	Total	TC (Btu/H)	210759	207187	203036	201168	199416	197768	196212	194739	192009
		kW	12.4	13.8	16.1	16.9	18.4	19.7	22.4	25.0	31.3
35	A	TC (Btu/H)	94038	91338	85651	84183	81387	80457	76018	73726	70631
		SDT (°F)	92.8	100.7	110.8	114.4	120.4	125.0	135.4	144.7	168.0
	B	TC (Btu/H)	159646	149536	144506	138578	135777	133279	131034	129003	125466
		SDT (°F)	97.3	105.8	115.3	119.1	124.4	128.8	136.8	144.3	162.4
	Total	TC (Btu/H)	253685	240874	230157	222761	217164	213736	207051	202729	196097
		kW	13.0	14.4	16.5	17.4	18.9	20.2	22.8	25.2	31.4
40	A	TC (Btu/H)	100203	97114	91776	89706	87123	85625	82693	81482	81228
		SDT (°F)	93.5	101.6	111.7	115.7	121.7	126.5	137.4	145.9	168.6
	B	TC (Btu/H)	166725	159314	154760	148952	146258	143494	141357	139411	136565
		SDT (°F)	99.7	108.0	117.3	121.3	126.7	131.4	139.9	147.2	166.1
	Total	TC (Btu/H)	266927	256428	246536	238658	233381	229119	224050	220894	217793
		kW	13.2	14.5	16.7	17.7	19.3	20.8	23.6	26.1	31.6
45	A	TC (Btu/H)	105824	103482	98942	96579	94034	91983	89385	88038	87105
		SDT (°F)	95.8	104.4	114.3	118.4	124.0	128.5	138.4	145.2	164.4
	B	TC (Btu/H)	182086	170611	163874	159247	156431	153923	151494	149284	145405
		SDT (°F)	102.1	110.0	118.7	122.8	128.0	132.9	141.1	148.1	166.9
	Total	TC (Btu/H)	287910	274092	262815	255826	250464	245906	240879	237322	232510
		kW	13.9	15.3	17.3	18.4	19.9	21.4	24.0	26.3	32.6
50	A	TC (Btu/H)	126323	111373	108169	106053	103225	100742	96465	93014	85798
		SDT (°F)	101.8	111.2	120.5	124.4	128.9	132.5	139.2	143.7	155.5
	B	TC (Btu/H)	196399	184499	176471	170484	166877	163448	160568	158262	153827
		SDT (°F)	105.2	112.6	120.3	124.2	128.9	133.7	140.6	147.2	164.4
	Total	TC (Btu/H)	322722	295872	284640	276537	270101	264190	257034	251276	239625
		kW	15.5	16.9	18.8	19.8	21.0	22.3	24.3	26.0	30.1
55	A	TC (Btu/H)	146880	120868	119393	117669	114320	111223	104199	97427	80458
		SDT (°F)	111.2	122.5	131.5	135.1	138.1	140.6	142.4	143.5	143.9
	B	TC (Btu/H)	208236	195249	185652	181963	178570	176188	172829	170374	166100
		SDT (°F)	110.4	117.3	124.0	127.7	131.9	136.6	142.1	148.4	164.5
	Total	TC (Btu/H)	355116	316118	305046	299632	292890	287411	277028	267800	246558
		kW	17.9	19.6	21.2	22.1	22.9	23.9	24.8	25.8	28.1

Vertical Unit - Model CAUA

HP	Motor Type	Motor F.L.A.	Motor RPM	Voltage	PH
0.25	OPEN	5.1	1750	120	1
0.25	OPEN	2.1	1750	208	1
0.25	OPEN	2.3	1750	240	1
0.25	OPEN	1.1	1750	208	3
0.25	OPEN	1.4	1750	240	3
0.25	OPEN	0.75	1750	480	3
0.25	TEFC	3.6	1750	120	1
0.25	TEFC	2.2	1750	208	1
0.25	TEFC	1.9	1750	240	1
0.25	TEFC	1.6	1750	208	3
0.25	TEFC	1.4	1750	240	3
0.25	TEFC	0.7	1750	480	3
0.33	OPEN	5.5	1750	120	1
0.33	OPEN	3.2	1750	208	1
0.33	OPEN	2.8	1750	240	1
0.33	OPEN	1.4	1750	208	3
0.33	OPEN	1.6	1750	240	3
0.33	OPEN	0.8	1750	480	3
0.33	TEFC	4.6	1750	120	1
0.33	TEFC	2.3	1750	208	1
0.33	TEFC	2.4	1750	240	1
0.33	TEFC	1.2	1750	208	3
0.33	TEFC	1.2	1750	240	3
0.33	TEFC	0.6	1750	480	3
0.50	OPEN	8.8	1750	120	1
0.50	OPEN	5.1	1750	208	1
0.50	OPEN	4.4	1750	240	1
0.50	OPEN	2.1	1750	208	3
0.50	OPEN	2	1750	240	3
0.50	OPEN	1	1750	480	3
0.50	TEFC	7	1750	120	1
0.50	TEFC	3.4	1750	208	1
0.50	TEFC	3.5	1750	240	1
0.50	TEFC	2.3	1750	208	3
0.50	TEFC	2	1750	240	3
0.50	TEFC	1	1750	480	3
0.50	TEFC	0.7	1750	575	3
0.75	OPEN	11	1750	120	1
0.75	OPEN	6.3	1750	208	1
0.75	OPEN	5.5	1750	240	1
0.75	OPEN	2.9	1750	208	3
0.75	OPEN	2.6	1750	240	3
0.75	OPEN	1.3	1750	480	3
0.75	TEFC	11	1750	120	1
0.75	TEFC	5.4	1750	208	1
0.75	TEFC	5.5	1750	240	1
0.75	TEFC	2	1750	208	3
0.75	TEFC	2.2	1750	240	3
0.75	TEFC	1.1	1750	480	3
0.75	TEFC	0.8	1750	575	3
1.00	OPEN	13	1750	120	1
1.00	OPEN	7.5	1750	208	1
1.00	OPEN	6.5	1750	240	1
1.00	OPEN	3.7	1750	208	3
1.00	OPEN	3.2	1750	240	3
1.00	OPEN	1.6	1750	480	3
1.00	OPEN	1.4	1750	575	3
1.00	TEFC	13	1750	120	1
1.00	TEFC	6.5	1750	240	1
1.00	TEFC	3.3	1750	208	3
1.00	TEFC	3.4	1750	240	3
1.00	TEFC	1.7	1750	480	3
1.00	TEFC	1.4	1750	575	3
1.00	EE	3.1	1750	208	3
1.00	EE	2.7	1750	240	3
1.00	EE	1.35	1750	480	3
1.00	EE	1.1	1750	575	3

HP	Motor Type	Motor F.L.A.	Motor RPM	Voltage	PH
1.50	TEFC	16.4	1750	120	1
1.50	TEFC	9.5	1750	208	1
1.50	TEFC	8.2	1750	240	1
1.50	TEFC	4.3	1750	208	3
1.50	TEFC	4.4	1750	240	3
1.50	TEFC	2.2	1750	480	3
1.50	TEFC	1.8	1750	575	3
1.50	EE	4.5	1750	208	3
1.50	EE	3.9	1750	240	3
1.50	EE	1.95	1750	480	3
1.50	EE	1.6	1750	575	3
1.50	OPEN	15	1750	120	1
1.50	OPEN	8.3	1750	208	1
1.50	OPEN	7.5	1750	240	1
1.50	OPEN	5.6	1750	208	3
1.50	OPEN	5	1750	240	3
1.50	OPEN	2.7	1750	480	3
1.50	OPEN	2	1750	575	3
2.00	OPEN	20.4	1750	120	1
2.00	OPEN	10	1750	208	1
2.00	OPEN	10.2	1750	240	1
2.00	OPEN	7	1750	208	3
2.00	OPEN	6.6	1750	240	3
2.00	OPEN	3.3	1750	480	3
2.00	OPEN	2.4	1750	575	3
2.00	TEFC	24	1750	120	1
2.00	TEFC	12	1750	240	1
2.00	TEFC	6.5	1750	208	3
2.00	TEFC	5.6	1750	240	3
2.00	TEFC	2.8	1750	480	3
2.00	TEFC	2.2	1750	575	3
2.00	EE	6	1750	208	3
2.00	EE	5.2	1750	240	3
2.00	EE	2.6	1750	480	3
2.00	EE	2.1	1750	575	3
3.00	OPEN	14	3600	208	1
3.00	OPEN	12.4	3600	240	1
3.00	OPEN	9.1	3600	208	3
3.00	OPEN	8.4	3600	240	3
3.00	OPEN	4.2	3600	480	3
3.00	OPEN	3.6	3600	575	1
3.00	TEFC	30	3600	120	1
3.00	TEFC	15	3600	240	3
3.00	TEFC	8.5	3600	208	3
3.00	TEFC	8.2	3600	240	3
3.00	TEFC	4.1	3600	480	3
3.00	TEFC	3.1	3600	575	3
3.00	EE	8.6	3600	208	3
3.00	EE	7.8	3600	240	3
3.00	EE	3.9	3600	480	3
3.00	EE	3	3600	575	3
5.00	OPEN	28	3600	208	1
5.00	OPEN	26	3600	240	1
5.00	OPEN	13.4	3600	208	3
5.00	OPEN	13.2	3600	240	3
5.00	OPEN	6.6	3600	480	3
5.00	OPEN	5.4	3600	575	3
5.00	TEFC	13.2	3600	208	3
5.00	TEFC	12	3600	240	3
5.00	TEFC	6	3600	480	3
5.00	TEFC	4.8	3600	575	3
5.00	TEFC	22.8	3600	240	1
5.00	EE	13.9	3600	208	3
5.00	EE	12.6	3600	240	3
5.00	EE	6.3	3600	480	3
5.00	EE	4.8	3600	575	3

HP	Motor Type	Motor F.L.A.	Motor RPM	Voltage	PH
7.50	OPEN	35	1750	208	1
7.50	OPEN	32	1750	240	1
7.50	OPEN	22	1750	208	3
7.50	OPEN	21	1750	240	3
7.50	OPEN	10.5	1750	480	3
7.50	OPEN	8.4	1750	575	3
7.50	TEFC	34	1750	240	1
7.50	TEFC	23	1750	208	3
7.50	TEFC	21	1750	240	3
7.50	TEFC	10.5	1750	480	3
7.50	TEFC	8.4	1750	575	3
7.50	EE	22.5	1750	208	3
7.50	EE	19.6	1750	240	3
7.50	EE	9.8	1750	480	3
7.50	EE	7.5	1750	575	3
10.00	OPEN	42	1750	208	1
10.00	OPEN	38	1750	240	1
10.00	OPEN	30	1750	208	3
10.00	OPEN	26	1750	240	3
10.00	OPEN	13	1750	480	3
10.00	OPEN	10.4	1750	575	3
10.00	OPEN	9.9	1750	575	3
10.00	TEFC	39	1750	240	1
10.00	TEFC	30	1750	208	3
10.00	TEFC	26	1750	240	3
10.00	TEFC	13	1750	480	3
10.00	TEFC	10.4	1750	575	3
10.00	EE	28	1750	208	3
10.00	EE	24.4	1750	240	3
10.00	EE	12.2	1750	480	3
10.00	EE	9.7	1750	575	3
15.00	OPEN	43.1	1750	208	3
15.00	OPEN	39	1750	240	3
15.00	OPEN	19.5	1750	480	3
15.00	OPEN	16	1750	575	3
15.00	TEFC	38	1750	240	3
15.00	TEFC	19	1750	480	3
15.00	TEFC	15	1750	575	3
15.00	EE	40	1750	208	3
15.00	EE	36	1750	240	1
15.00	EE	18	1750	480	3
15.00	EE	14.5	1750	575	3
20.00	OPEN	58.7	1750	208	3
20.00	OPEN	53	1750	240	3
20.00	OPEN	26.5	1750	480	3
20.00	OPEN	21.2	1750	575	3
20.00	TEFC	52	1750	240	3
20.00	TEFC	26	1750	480	3
20.00	TEFC	20.6	1750	575	3
20.00	EE	52.9	1750	208	3
20.00	EE	48	1750	240	3
20.00	EE	24	1750	480	3
20.00	EE	19.2	1750	575	3



REZNOR® PRODUCT LIMITED WARRANTY

Reznor LLC warrants to the original owner-user that this Reznor product will be free from defects in material or workmanship. This warranty is limited to twelve (12) months from the date of original installation, whether or not actual use begins on that date, or eighteen (18) months from date of shipment by Reznor LLC, whichever occurs first.

Extended Warranty (Limited to the following models and components)

Model CAUA — Extended nine (9)-year, non-prorated warranty on the heat exchanger and burners. Extended four (4)-year, non-prorated warranty on all electrical and mechanical operating components (with the exception of blower belts).

Optional Extended Warranty

Extended warranties on components of the following may be purchased. Warranties include:

Option XW1 - Extended four (4) year non-prorated warranty on compressors. Extended warranty is also conditional upon the submission of a properly completed Proof of Check/Test/Startup Form (Model MASA).

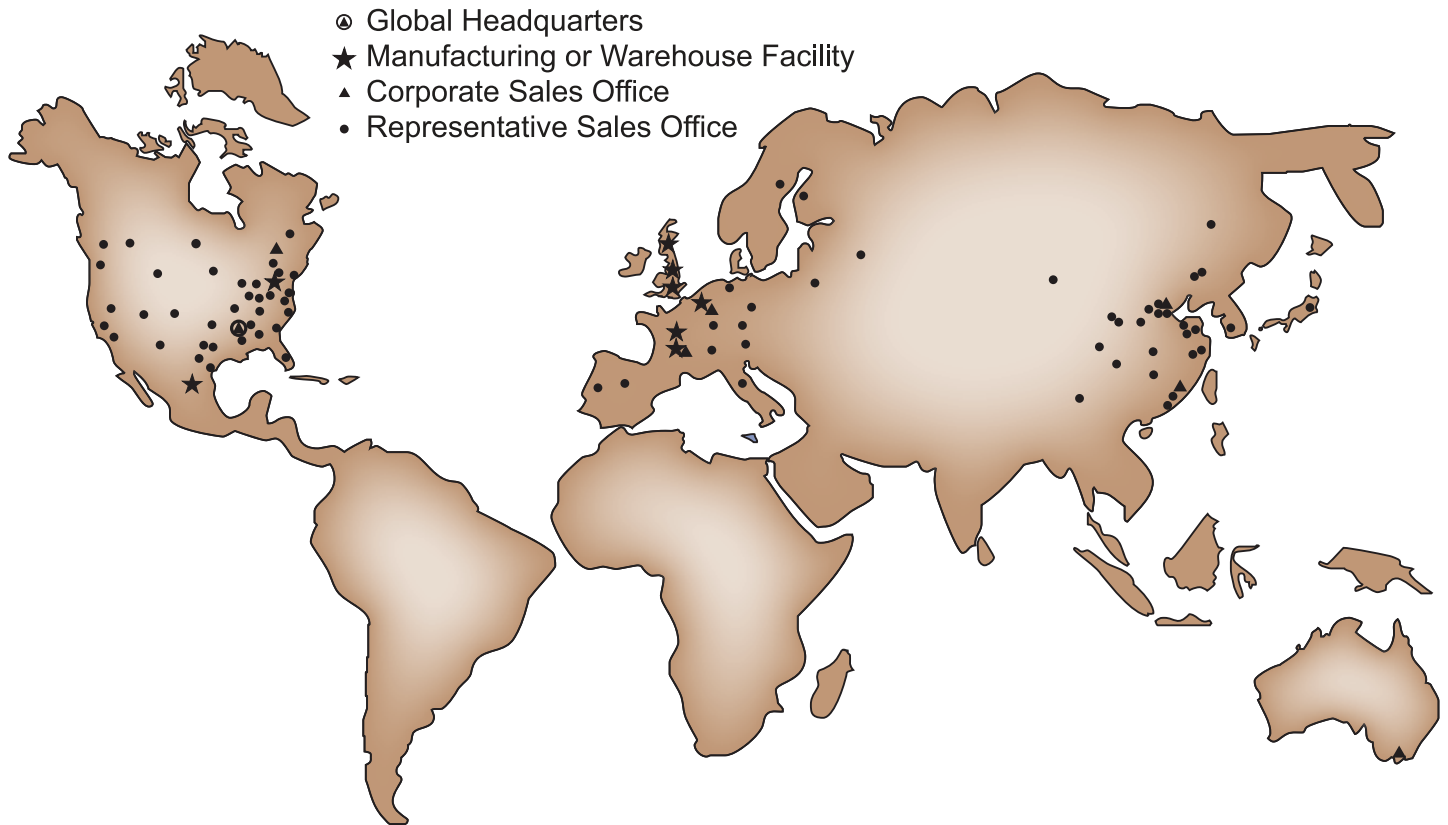
See limitations and exclusions below.

LIMITATIONS AND EXCLUSIONS

Reznor LLC obligations under this warranty and the sole remedy for its breach are limited to repair, at its manufacturing facility, of any part or parts of its Reznor products which prove to be defective; or, in its sole discretion, replacement of such products. All returns of defective parts or products must include the product model number and serial number, and must be made through an authorized Reznor distributor or arranged through Reznor Customer Service. Authorized returns must be shipped prepaid. Repaired or replacement parts will be shipped by Reznor LLC F.O.B. shipping point.

1. The warranty provided herein does not cover charges for labor or other costs incurred in the troubleshooting, repair, removal, installation, service or handling of parts or complete products.
2. All claims under the warranty provided herein must be made within ninety (90) days from the date of discovery of the defect. Failure to notify Reznor LLC of a warranted defect within ninety (90) days of its discovery voids Reznor LLC obligations hereunder.
3. The warranty provided herein shall be void and of no effect in the event that (a) the product has been operated outside its designed output capacity (heating, cooling, airflow); (b) the product has been subjected to misuse, neglect, accident, improper or inadequate maintenance, corrosive environments, environments containing airborne contaminants (silicone, aluminum oxide, etc.), or excessive thermal shock; (c) unauthorized modifications are made to the product; (d) the product is not installed or operated in compliance with the manufacturer's printed instructions; (e) the product is not installed and operated in compliance with applicable building, mechanical, plumbing and electrical codes; or (f) the serial number of the product has been altered, defaced or removed.
4. The warranty provided herein is for repair or replacement only. Reznor LLC shall not be liable for any loss, cost, damage, or expense of any kind arising out of a breach of the warranty. Further, Reznor LLC shall not be liable for any incidental, consequential, exemplary, special, or punitive damages, nor for any loss of revenue, profit or use, arising out of a breach of this warranty or in connection with the sale, maintenance, use, operation or repair of any Reznor product. In no event will Reznor LLC be liable for any amount greater than the purchase price of a defective product. The disclaimers of liability included in this paragraph 4 shall remain in effect and shall continue to be enforceable in the event that any remedy herein shall fail of its essential purpose.
5. THIS WARRANTY IS THE SOLE AND EXCLUSIVE WARRANTY FOR REZNOR PRODUCTS, AND IS IN LIEU OF ALL OTHER EXPRESS AND IMPLIED WARRANTIES. REZNOR LLC SPECIFICALLY DISCLAIMS ALL OTHER EXPRESS AND IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. No person or entity is authorized to bind Reznor LLC to any other warranty, obligation or liability for any Reznor product. Installation, operation or use of the Reznor product for which this warranty is issued shall constitute acceptance of the terms hereof.

**Reznor® is your global source for heating,
ventilating and air conditioning equipment.**



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contact your local Reznor Representative by calling
800-695-1901.**

**Or, find us on the internet at
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