REZNOR®

INDOOR/ OUTDOOR SPLIT SYSTEM HVAC CATALOG

COMMERCIAL/INDUSTRIAL AIR HANDLER AND CONDENSING UNIT

AIR HANDLER CAPACITIES

- 563 - 7,593 CFM Air
- 20 - 400 MBH Heating (Gas/LP)
- 10 - 120 kW Heating (Electric)
- 5 - 20 Tons Cooling - DX
- 3 - 45 Tons Cooling (Chilled Water)
- 2-1/2 - 5 Cooling (Dedicated ReHeat)

AIR HANDLER CONFIGURATION

- Horizontal Indoor/Outdoor
- Vertical Indoor

AIR HANDLER HEATING FUEL

- Natural Gas
- Propane
- Electricity

CONDENSING UNIT CAPACITY

- 5 - 20 Ton Cooling - DX (MASA)

Visit www.RezSpec.com for more information.

Form C-SS (Version C)

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. The development of the forced air gas unit heater, form the modular Thermocore® heat exchanger, through the high-efficiency, sealed-draft Venturion® unit heater, to today’s very high efficiency V3® and TCORE3® 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 high fuel efficient cooling for recirculated or up to 100% outside air. Reznor products include evaporative cooling units, chilled water 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 web site www.RezSpec.com.

REZNOR®

Thomas&Betts

REZNOR®

Split Systems (up to 400 MBH)

NOTE: For information on Reznor Model RPB, please go to www.RezSpec.com and search for "rpbtechdata" (no spaces).

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.

Contents

REZNOR®

MODEL SHH
High Efficiency, Split Systems

Model SHH

CSA 2.6
ANSI Z83.8

**** U.S. Patent No. 6,889,686***

DESCRIPTION

Model SHH is the new 91% efficient separated-combustion addition to the Reznor® line of air-handlers. The first ever separated combustion system in the commercial/industrial heating industry was introduced on a Reznor heater in the 1960s, and that proven technology is continued in this new high efficiency separated combustion product.

Model SHH is available in 4 sizes, 130MBH, 180MBH, 260MBH and 350MBH. Each size is designed for a minimum of 91% thermal efficiency and is available for use with either natural gas or propane. Model SHH separated-combustion units are approved for space heating applications in commercial/industrial installations in the United States and Canada by ETL Testing Agency.

Standard features include the Reznor TCORE³™ heat exchanger and single burner combustion system, a multi-try direct spark ignition with 100% lockout, pressure switch to verify venter flow, resiliently isolated venter motor, a high temperature limit control, and a centrifugal belt-driven blower capable of up to 2" w.c. of total static pressure. Both the forward curved blower and the blower motor are factory installed on vibration isolation mounts. All published airflow data are supported by AMCA tested and rated airflow performance curves. The energy usage of the system has been designed to meet the current ASHRAE Standard 90.1 (maximum 1.2 bhp per 1000 cfm).

Operation is controlled through an integrated circuit board. The circuit board monitors heater operation and has LED diagnostic indicator lights to identify abnormalities in heating control functions. Optional features include factory-assembled, modular sections - a draw-through cooling coil cabinet module with either chilled water or DX coil and an inlet air mixing box module with a variety of configurations and damper options. A complete heating and cooling advanced digital control package is available in addition to common industry standard analog thermostat control.

Model SHH high efficiency separated-combustion units require installation of either a horizontal or vertical vent/combustion air kit that includes a specially designed concentric adapter box. The unique box design allows for only one building penetration for both the flue outlet and combustion air inlet. For more details on design, installation or selection of separated combustion, go to www.Rezspec.com.

STANDARD FEATURES

- Patented* TCORE³™ Combustion System - includes Titanium Stabilized Aluminized Steel Heat Exchanger and aluminum secondary heat exchanger
- ETL certification
- Minimum 91% thermal efficiency
- Proven separated-combustion technology including shipped-separate vent/combustion air kit (vertical or horizontal)
- Maximum 75°F temperature rise
- Circuit breaker protected transformer for 24-volt controls
- Integrated circuit board with diagnostic indicator lights
- Multi-try direct spark ignition with 100% lockout
- High temperature limit control
- Vibration/noise isolated venter motor, blower(s) and blower motor (spring or rubber isolators)
- L50 bearing rating with a life expectancy of 150,000 hours
- Reverse airflow limit switch
- Easily convertible single gas orifice system
- Socketed, high quality switching relays to facilitate service
- All service and vent connections from a single side
- Vent runs up to 50 feet - sizes 130C-260D (40feet - size 350E)
- Through-the-cabinet or through-the-base electrical
- Engineered condensate management
- Three hinged service doors with heavy duty hardware
- Fully gasketed door panel with safety door switch
- Pre-coat white gloss painted cabinet finish
- 4-point base suspension; or slab or floor mounting
- Fork lift openings built into the heavy gauge steel base
- Natural Gas or Propane
- Blocked condensate drain pressure switch
- Vent pipe temperature limit switch

REZNOR®

Model SHH (cont'd)

FACTORY INSTALLED OPTIONS

- Optional 409 Stainless Steel Primary Heat Exchanger
- Heat Exchanger Extended Warranty - 5-year or 10-year (extended warranty requires optional stainless steel heat exchanger)
- Controls: Space Temperature Heating only, Heating and Cooling
  - Analog two-stage gas valve with room thermostat control (thermostat is available as a shipped separate accessory or may be field-supplied)
  - Digital two-stage heating/three-stage cooling with room command module and optional Lon or N2 communication.
- Supply Voltage - 115/1; 208/1; 230/1; 208/3; 230/3; 460/3; 575/3
- UV Germicidal Lamps - Ultraviolet Emitter for neutralization of VOCs and airborne micro-organisms for improved IAQ - not filtration. (Requires Cooling Coil Cabinet Option AU. Separate 115/1 or 208/1 or 230/1 wiring/breaker and a separate disconnect must be provided.)
- Inlet Air Filters - 1" or 2" disposable or permanent; 1", 2", or 4" pleated disposable; arranged in vertical fl at bank for ease of service
- Cabinet Configuration and Construction
  - Left or right side controls
  - Insulation; single or double wall with standard (R value 3.8) or high-density (R value 4.4) insulation
  - Blower cabinet screen, inlet duct connection flange
- Discharge duct flange or louvers (horizontal or horizontal and vertical)
- Mixing Box Module
  - five inlet configuration combinations including top, bottom, with rear motorized modulating return air and outside air dampers
  - Direct-coupled 24VAC damper actuators
  - Economizer package Enthalpy
- Blower Motor (1/3 to 5 HP) - see pressure drops and blower charts
  - open dripproof, TEFC, or premium efficiency
  - adjustable sheave and belt
  - motor contactor; IEC motor starter; or factory-installed variable frequency drive
- Cooling Coil Module with coil
  - DX coil (single, dual or 1/3-2/3 circuit; galvanized or stainless casing; copper or aluminum fi ns [coated or uncoated]) - non-ozone depleting, R410A refrigerant
  - chilled water coil (1/4, 1/2, 3/4, or full circuiting; galvanized or stainless casing; copper or aluminum fins [coated or uncoated])
- Unit mounted, lockable, non-fused service on/off switch
- Convenience Outlet (requires separate power supply)
- Firestat
- Discharge Temperature Low Limit
- Over/Under Voltage or Phase Loss Protection
- Gas Pressure Switches (high, low, or both)

FIELD INSTALLED OPTIONS

- Variable Frequency Drive (factory-installed is also available)
- Downturn Nozzles (25-65° or 50-90°) with directional louvers
- Thermostats to match analog controls
- Smoke Detector (in ductwork)
- Remote Control Console and Unit Monitoring
- Wall-Mounted Disconnect Switch
- M-Series condenser

REZNOR®

TECHNICAL DATA

Model SHH (cont'd)

Model SHH		Size	130C	180C	260D	350E
Input Heating Capacity [A]		Btuh	131,000	175,000	260,000	345,000
		kw/h	38.4	51.2	76.1	101.0
Output Heating Capacity		Btuh	120,520	159,250	236,600	313,950
		kw/h	35.3	46.6	69.3	91.9
Minimum Temperature Rise		°F (°C)	30 (16.7)	31 (17.2)	40 (22.2)	44 (24.4)
Maximum Temperature Rise		°F (°C)	75 (41.7)	75 (41.7)	75 (41.7)	75 (41.7)
Minimum Mixed Air Conditions		°F (°C)	50 (10)	50 (10)	50 (10)	50 (10)
Control Amps (24 volt)			1.0	1.0	1.0	1.0
Full Load Amps (115 volt, less blower motor)			2.2	2.2	2.2	2.2
Blower [B]	Size	inches	12x12	12x12	(2)12x7	(2)12x12
	Min Airflow Heating/Cooling	cfm	1488	1966	2921	3876
		m^3/min	42	56	83	110
	Max Airflow Heating	cfm	3720	4757	5440	6607
		m^3/min	105	135	154	187
	Max Airflow Cooling	cfm	2920	2920	4890	5865
		m^3/min	83	83	138	166
Vent Connection	Diameter	inches	4	4	4	4
Combustion Air Connection	Diameter	inches	6	6	6	6
Maximum Vent Length		feet	50	50	50	40
		meters	15.24	15.24	15.24	12.19
Gas Connection	Natural	inches	1/2	1/2	3/4	3/4
	Propane	inches	1/2	1/2	3/4	3/4
Ship Weight (basic unit only; add module wts)		lbs	729	735	987	1186
		kg	331	333	448	538
Net Weight (basic unit only; add module wts)		lbs	538	544	729	889
		kg	244	247	331	403
Filter (Qty) and Size (Factory-installed filters are optional.)			(2) 16x16 (2) 16x20	(2) 16x16 (2) 16x20	(3) 16x16 (3) 16x20	(1) 16x16 (2) 20x20 (3) 16x20

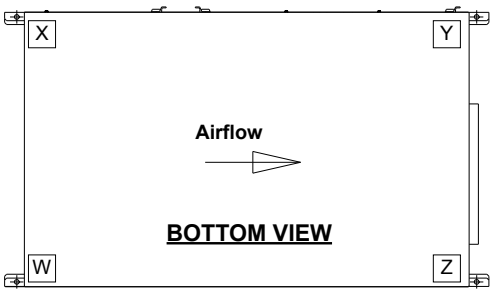
For altitude adjustment, see the High Altitude Capacity Changes tables.
Evaporative cooling module not available on Model SHH.

[A] Does not include motor heat.

[B] The minimum and maximum heating CFM based upon a temperature rise range. The maximum and minimum cooling CFM is based upon air velocity ranges of 200 FPM thru 500 FPM. The actual CFM may be limited by e.s.p., design conditions, selected options, elevation and other items.

Corner Weights***

SIZE		Z	W	X	Y
130C	lbs.	201	213	189	201
	(kg)	(91)	(97)	(86)	(91)
180C	lbs.	207	210	198	200
	(kg)	(94)	(95)	(90)	(91)
260D	lbs.	289	276	244	233
	(kg)	(131)	(125)	(111)	(106)
350E	lbs.	345	316	306	281
	(kg)	(156)	(143)	(139)	(127)



****** Corner weights are for base unit and include standard controls only. Weights do not include motor, double wall construction, or any optional accessories such as cooling coil cabinet, or mixing box.***

NOTE: For information on separated combustion venting for Model SHH, go to www.Rezspec.com and search for "shhseparatedcombustionventing" (no spaces).

REZNOR®
PREEVA®

MODEL SDH - Separated Combustion
Indoor

Model SDH

CSA 2.6
ANSI Z83.8

DESCRIPTION

Model SDH is the new separated-combustion addition to the Reznor® line of Pre-Engineered Ventilation Air-Handlers (PREEVA®). Since the introduction of separated-combustion technology, Reznor products have been the industry standard. This new separated-combustion packaged heater is engineered with that same quality plus many new standard and optional features.

Model SDH is available in 11 sizes from 75 MBH to 400 MBH. Each size is designed for a minimum of 81% thermal efficiency and is available for use with either natural gas or propane. Model SDH separated-combustion heaters are approved for commercial/industrial installations in the United States and Canada by ETL Testing Agency.

Standard features include the Reznor TCORE2® heat exchanger and single burner combustion system, a multi-try direct spark ignition with 100% lockout, pressure switch to verify venter flow, resiliently isolated venter motor, a high temperature limit control, and a centrifugal belt-driven blower capable of up to 3" w.c. of total static pressure. Both the forward curved blower and the blower motor are factory installed on vibration isolation mounts. All published airflow data are supported by AMCA tested and rated airflow performance curves. The energy usage of the system has been designed to meet the current ASHRAE Standard 90.1 (maximum 1.2 bhp per 1000 cfm).

Operation is controlled through an integrated circuit board. The circuit board monitors heater operation and has LED diagnostic indicator lights to identify abnormalities in heating control functions.

Optional features include factory-assembled, modular sections - a draw-through cooling coil cabinet module with either chilled water or DX coil and an inlet air mixing box module with a variety of configurations and damper options. A complete heating and cooling advanced digital control package is available in addition to common industry standard analog heating only and makeup air controls. (See the list on the below for many more features to select.)

The unit also provides dehumidification of 100% outside air or a mixture of outside/return air. The self contained dedicated Re-Heat pumpTM, provides 13°F -20°F reheat temperature rise from the main evaporator coil discharge. The DX cooling coils are optimized for best performance when the reheat pump is on and off. For precise control, modulating reheat can be added.

Model SDH separated-combustion units require installation of either a horizontal or vertical vent/combustion air kit that includes a specially designed concentric adapter box. The unique box design allows for only one building penetration for both the flue outlet and combustion air inlet.

For more details on design, installation or selection of separated combustion, go to www.Rezsepc.com.

STANDARD FEATURES

- Patented* TCORE2® Combustion System - includes Titanium Stabilized Aluminized Steel Heat Exchanger
- ETL certification
- Minimum 81% thermal efficiency throughout modulated range
- Proven separated-combustion technology including shipped-separate vent/combustion air kit (vertical or horizontal)
- Maximum 70°F temperature rise (optional 120°F)
- Circuit breaker protected transformer for 24-volt controls
- Integrated circuit board with diagnostic indicator lights
- Multi-try direct spark ignition with 100% lockout
- High temperature limit control
- Vibration/noise isolated venter motor, blower(s) and blower motor (spring or rubber isolators)
- L50 bearing rating with a life expectancy of 150,000 hours
- Reverse airflow limit switch
- Airflow pressure switch to verify circulating blower operation on makeup air options
- Easily convertible single gas orifice system
- Socketed, high quality switching relays to facilitate service
- All service and vent connections from a single side
- Vent runs up to 45 feet
- Through-the-cabinet or through-the-base electrical
- Engineered condensate management
- Three hinged service doors with heavy duty hardware
- Fully gasketed door panel with safety door switch
- Pre-coat white gloss cabinet finish
- 4-point base suspension; or slab or floor mounting
- Fork lift openings built into the heavy gauge steel base

U.S. Patent No. 6,889,686

REZNOR®

Model SDH (cont'd)

FACTORY INSTALLED OPTIONS

- Stainless Steel Heat Exchanger - 409 or 316 (stainless steel heat exchanger required for 70° - 120°F temperature rise)
- Heat Exchanger Extended Warranty - 5-year or 10-year
- Natural Gas or Propane
- Controls
  - ♦ Space Temperature Heating only
    - —Analog single or two-stage gas valve with room thermostat control (thermostat is available as a shipped-separate accessory or may be field-supplied)
  - ♦ Space Temperature Heating/Cooling
    - —Digital two-stage heating/three-stage cooling with room command module
    - —Digital electronic modulation heating (25% low fire - natural gas, 40% low fire - propane)/ two-stage cooling with room command module
  - ♦ Discharge Temperature Makeup Air (Heating only)
    - —Analog 2-stage with 2-stage ductstat or electronic sensor and 2-stage valve
  - ♦ Discharge Temperature Heating/Cooling Makeup Air
    - —Digital two-stage heating/three-stage cooling with room command module
    - —Digital electronic modulation heating (25% low fire - natural gas, 40% low fire - propane)/ three-stage cooling with room command module, reheat control
- Supply Voltage - 115/1; 208/1; 230/1; 208/3; 230/3; 460/3; 575/3
- UV Germicidal Lamps - Ultraviolet Emitter for neutralization of VOCs and airborne micro-organisms for improved IAQ - not filtration. (Requires Cooling Coil Cabinet Option AU. Separate 115/1 or 208/1 or 230/1 wiring/breaker and a separate disconnect must be provided.)
- Inlet Air Filters - 1" or 2" disposable or permanent; 1", 2", or 4" pleated disposable; arranged in vertical flat bank for ease of service
- Cabinet Configuration and Construction
  - —Left or right side controls
  - —No insulation; single or double wall with standard (R value 3.8) or high-density (R value 4.4) insulation
  - —Blower cabinet screen, inlet duct connection flange, or inlet on/off damper with duct flange
  - —Discharge duct flange or louvers (horizontal or horizontal and vertical)
- Mixing Box Module
  - —five inlet configuration combinations including top, bottom, and rear
  - —manual, motorized 2 or 3 position, or motorized modulating return air or outside air and return air dampers
  - —direct-coupled 24VAC damper actuators
  - —damper control selections such as 0-135 ohms resistance potentiometer, building pressure, or 0-10 v control
- Blower Motor (1/4 to 5 HP) - see pressure drops and blower charts
  - —open dripproof, TEFC, or premium efficiency
  - —adjustable sheave and belt
  - —motor contactor; IEC motor starter; or factory-installed variable frequency drive
- Cooling Coil Module with coil
  - —DX coil (single, dual or 1/3-2/3 circuit; galvanized or stainless casing; copper or aluminum fins [coated or uncoated]) - non-ozone depleting, R410A refrigerant
  - —DX coil module with dehumidification control. Single, dual and 1/3-2/3 circuit, main DX coil with modulating or standard reheat control
  - —chilled water coil (3-45 tons; 1/4, 1/2, 3/4, or full circuiting; galvanized or stainless casing; copper or aluminum fins [coated or uncoated])
- Evaporative Cooling Module
  - —white pre-painted or 300 series stainless steel cabinet
  - —300 series stainless steel reservoir
  - —recirculating pump or AquaSaver microprocessor-based, timed water distribution system
  - —6" or 12" Glacier-Cor® or optional Glas-dek® UL 900 Class II noncombustible media
  - —1" or 2" aluminum pre-filter
  - —freeze protection kit (factory-installed)
  - —automatic fill and drain kit (field-installed)
  - —water hammer arrestor (field installed)
- Unit mounted, lockable, non-fused service on/off switch
- Convenience Outlet (requires separate power supply)
- Firestat
- Discharge Temperature Low Limit
- Over/Under Voltage or Phase Loss Protection
- High Ambient Limit (burner cutoff)
- Gas Pressure Switches (high, low, or both)

FIELD INSTALLED OPTIONS

- Variable Frequency Drive (factory-installed is also available)
- Downturn Nozzles (25-65° or 50-90°) with directional louvers
- Thermostats to match analog controls
- Gas Pressure Regulator
- Smoke Detector (in ductwork)
- Remote Control Console and Unit Monitoring
- Main Unit Disconnect Switch
- M-Series condenser

REZNOR®

Model SDH (cont'd)

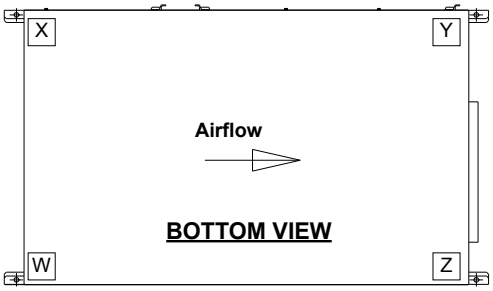
TECHNICAL DATA

Model SDH		Size	75	100	125	150	175	200	225	250	300	350	400A
Input Heating Capacity*		Btuh	75,000	100,000	125,000	150,000	175,000	200,000	225,000	250,000	300,000	350,000	400,000
		kw/h	22.0	29.3	36.6	43.9	51.2	58.6	65.9	73.2	87.8	102.5	117.1
Output Heating Capacity (81% Thermal Efficiency)		Btuh	60,750	81,000	101,250	121,500	141,750	162,000	182,250	202,500	243,000	283,500	324,000
		kw/h	17.8	23.7	29.6	35.6	41.5	47.4	53.4	59.3	71.2	83.0	94.9
Minimum Temperature Rise		°F	40	40	40	40	40	40	40	40	40	40	40
Control Amps (24 volt)			1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Full Load Amps (115 volt, less motor)			1.2	1.2	1.2	0.9	0.9	1.7	1.7	1.7	3.0	3.0	3.0
Blower	Size	inches	10x10	10x10	(2) 9x7	(2) 9x7	12x12	12x12	12x12	(2)12x7	(2)12x7	(2)12x12	(2)12x12
	Min Airflow Heating**	cfm	469	625	781	938	1094	1250	1406	1563	1875	2188	2500
		m3/min	13	18	22	27	31	35	40	44	53	62	71
	Max Airflow Heating	cfm	1406	1875	2344	2813	3281	3750	4219	4688	5625	6563	7500
		m^3/min	16	21	27	32	37	42	48	53	64	74	85
	Min Airflow Cooling**	cfm	583	583	826	826	917	917	917	1537	1537	1843	1843
		m^3/min	17	17	23	23	26	26	26	44	44	52	52
	Max Airflow Cooling	cfm	1406	1875	2344	2813	2916	2916	2916	4688	4691	5061	5861
		m^3/min	40	53	66	80	83	83	83	133	133	143	166
Vent Connection	Diameter	inches	4	4	4	5	5	5	5	6	6	6	6
Combustion Air Connection	Diameter	inches	4	4	4	5	6	6	6	6	6	6	6
Maximum Vent Length		feet	25	35	30	30	30	40	40	45	45	45	45
		meters	7.62	10.67	9.14	9.14	9.14	12.19	12.19	13.72	13.72	13.72	13.72
Gas Connection	Natural	inches	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4	3/4	3/4	3/4
	Propane	inches	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4	3/4	3/4	3/4
Ship Weight (basic unit only; add module wts)		lbs	421	433	545	553	645	659	659	863	877	1008	1019
		kg	191	196	247	251	293	299	299	391	398	457	462
Net Weight (basic unit only; add module wts)		lbs	323	331	413	421	478	492	492	615	629	721	732
		kg	146	150	187	191	217	223	223	279	285	327	332
Filter (Qty) and Size (Factory-installed filters are optional.)			(2) 16x25	(2) 16x25	(2) 20x25	(2) 20x25	(2) 16x16 (2) 16x20	(2) 16x16 (2) 16x20	(2) 16x16 (2) 16x20	(3) 16x16 (3) 16x20	(3) 16x16 (3) 16x20	(1) 16x16 (2) 20x20 (3) 16x20	(1) 16x16 (2) 20x20 (3) 16x20

For altitude adjustment, see the High Altitude Capacity Changes tables.
** Does not include motor heat.*
*** The minimum and maximum heating CFM based upon a temperature rise range from 40°F thru 120°F temperature rise. The maximum and minimum cooling CFM is based upon air velocity ranges of 200 FPM thru 500 FPM. The actual CFM may be limited by e.s.p., design conditions, selected options, elevation and other items.*

Corner Weights***

Size		W	X	Y	Z
75	lbs.	70	63	92	98
	(kg.)	(32)	(29)	(42)	(44)
100	lbs.	70	63	96	102
	(kg.)	(32)	(29)	(44)	(46)
125	lbs.	92	87	113	121
	(kg.)	(42)	(39)	(51)	(55)
150	lbs.	92	87	117	125
	(kg.)	(42)	(39)	(53)	(57)
175	lbs.	80	74	156	168
	(kg.)	(36)	(34)	(71)	(76)
200	lbs.	80	74	163	175
	(kg.)	(36)	(34)	(74)	(79)
225	lbs.	80	74	163	175
	(kg.)	(36)	(34)	(74)	(79)
250	lbs.	124	110	180	201
	(kg.)	(56)	(50)	(82)	(91)
300	lbs.	124	110	187	208
	(kg.)	(56)	(50)	(85)	(94)
350	lbs.	158	155	198	210
	(kg.)	(72)	(70)	(90)	(95)
400	lbs.	158	155	202	217
	(kg.)	(72)	(70)	(92)	(98)



**** Corner weights are for base unit and include standard controls only. Weights do not include motor, double wall construction, or any optional accessories such as cooling coil cabinet, or mixing box.*

NOTE: For information on separated combustion venting for Model SDH, go to www.Rezspec.com and search for "sdhseparatedcombustionventing" (no spaces).

Output Heating Capacity (81% Thermal Efficiency)

REZNOR®
PREEVA®

MODEL PDH
Indoor, Power-Vented Packaged Heating System

Model PDH

CSA 2.6
ANSI Z83.8

DESCRIPTION

Model PDH is the new indoor, indirect-fired, power-vented addition to the Reznor® line of Pre-Engineered Ventilation Air-Handlers (PREEVA®).

Model PDH is available in 11 sizes from 75 MBH to 400 MBH. Each size is designed for a minimum 81% thermal efficiency and is available for use with either natural gas or propane. Model PDH indoor, power-vented heaters are approved for commercial/industrial installations in the United States and Canada by the ETL Testing Agency.

Standard features include the Reznor TCORE2® heat exchanger and single burner combustion system, a multi-try direct spark ignition with 100% lockout, pressure switch to verify venter flow, resiliently isolated venter motor, a high temperature limit control, and a centrifugal belt-driven blower capable of up to 3" w.c. of total static pressure. Both the forward curved blower and the blower motor are factory installed on vibration isolation mounts. All published airflow data are supported by AMCA tested and rated airflow performance curves. The energy usage of the system has been designed to meet the current ASHRAE Standard 90.1 (maximum 1.2 bhp per 1000 cfm).

Operation is controlled through an integrated circuit board. The circuit board monitors heater operation and has LED diagnostic indicator lights to identify abnormalities in heating control functions.

The unit also provides dehumidification of 100% outside air or a mixture of outside/return air. The self contained dedicated Re-Heat pump™, provides 13°F -20°F reheat temperature rise from the main evaporator coil discharge. The DX cooling coils are optimized for best performance when the reheat pump is on and off. For precise control, modulating reheat can be added.

Optional features include factory-assembled, modular sections — **a draw-through cooling coil cabinet module** with either chilled water or DX coil and an **inlet air mixing box module** with a variety of configurations and damper options. A complete heating and cooling advanced digital control package is available in addition to common industry standard analog heating only and makeup air controls. (See the list on the below for many more features to select.)

Model PDH indoor, power-vented units require installation of an optional vent cap (or field-supplied equivalent).

STANDARD FEATURES

- Patented* TCORE2® Combustion System - includes Titanium Stabilized Aluminized Steel Heat Exchanger
- ETL certification
- Minimum 81% thermal efficiency throughout modulated range
- Maximum 70°F temperature rise (optional 120°F)
- Circuit breaker protected transformer for 24-volt controls
- Integrated circuit board with diagnostic indicator lights
- Multi-try direct ignition with 100% lockout
- High temperature limit control
- Vibration/noise isolated venter motor, blower(s) and blower motor (spring or rubber isolators)
- L50 bearing rating with a life expectancy of 150,000 hours
- Reverse airflow limit switch
- Airflow pressure switch to verify circulating blower operation on makeup air options
- Easily convertible single gas orifice system
- Socketed, high quality switching relays to facilitate service
- All service and vent connections from a single side
- Vent runs up to 50 feet
- Through-the-cabinet or through-the-base electrical
- Engineered condensate management
- Three hinged service doors with heavy duty hardware
- Pre-coat white gloss cabinet finish
- 4-point base suspension; or slab or floor mounting
- Fork lift openings built into the heavy gauge steel base

FACTORY INSTALLED OPTIONS

- Stainless Steel Heat Exchanger - 409 or 316 (stainless steel heat exchanger required for 70° - 120°F temperature rise)
- Heat Exchanger Extended Warranty - 5-year or 10-year
- Natural Gas or Propane

**** U.S. Patent No. 6,889,686***

REZNOR®

Model PDH (cont'd)

FACTORY INSTALLED OPTIONS (cont'd)

- Controls
  - ♦ Space Temperature Heating only
    - — Analog single or two-stage gas valve with room thermostat control (thermostat is available as a shipped-separate accessory or may be field-supplied)
  - ♦ Space Temperature Heating/Cooling
    - — Digital two-stage heating/three-stage cooling with room command module
    - — Digital electronic modulation heating (25% low fire - natural gas, 40% low fire - propane)/ three-stage cooling with room command module, reheat control
  - ♦ Discharge Temperature Makeup Air (Heating only)
    - — Analog 2-stage with 2-stage ductstat or electronic sensor and 2-stage valve
  - ♦ Discharge Temperature Heating/Cooling Makeup Air
    - — Digital two-stage heating/three-stage cooling with room command module
    - — Digital electronic modulation heating (25% low fire - natural gas, 40% low fire - propane)/ two-stage cooling with room command module
- Supply Voltage - 115/1; 208/1; 230/1; 208/3; 230/3; 460/3; 575/3
- UV Germicidal Lamps - Ultraviolet Emitter for neutralization of VOCs and airborne micro-organisms for improved IAQ - not filtration. (Requires Cooling Coil Cabinet Option AU. Separate 115/1 or 208/1 or 230/1 wiring/breaker and a separate disconnect must be provided.)
- Inlet Air Filters - 1" or 2" disposable or permanent; 1", 2", or 4" pleated disposable; arranged in vertical flat bank for ease of service
- Cabinet Configuration and Construction
  - — Left or right side controls
  - — No insulation; single or double wall with standard or high R-value insulation
  - — Blower cabinet screen, inlet duct connection flange, or inlet on/off damper with duct flange
  - — Discharge duct flange or louvers (horizontal or horizontal and vertical)
- Mixing Box Module
  - — five inlet configuration combinations including top, bottom, and rear
  - — manual, motorized 2 or 3 position, or motorized modulating return air or outside air and return air dampers
  - — direct-coupled 24VAC damper actuators
  - — damper control selections such as 0-135 ohms resistance potentiometer, building pressure, or 0-10 v control
- Blower Motor (1/4 to 5 HP) - see pressure drops and blower charts
  - — open dripproof, TEFC, or premium efficiency
  - — adjustable sheave and belt
  - — motor contactor; IEC motor starter; or factory-installed variable frequency drive
- Cooling Coil Module with coil
  - — DX coil (single, dual or 1/3-2/3 circuit; galvanized or stainless casing; copper or aluminum fins (coated or uncoated) - non-ozone depleting, R410A refrigerant
  - — DX coil module with dehumidification control. Single, dual and 1/3-2/3 circuit, main DX coil with modulating or standard reheat control
  - — chilled water coil (3-45 tons; 1/4, 1/2, 3/4, or full circuiting; galvanized or stainless casing; copper or aluminum fins (coated or uncoated)
- Evaporative Cooling Module
  - — white pre-painted or 300 series stainless steel cabinet
  - — 300 series stainless steel reservoir
  - — recirculating pump or AquaSaver microprocessor-based, timed water distribution system
  - — 6" or 12" Glacier-Cor® or optional Glas-dek® UL 900 Class II noncombustible media
  - — 1" or 2" aluminum pre-filter
  - — freeze protection kit (factory-installed)
  - — automatic fill and drain kit (field-installed)
  - — water hammer arrestor (field installed)
- Unit mounted, lockable, non-fused service on/off switch
- Convenience Outlet (requires separate power supply)
- Firestat
- Discharge Temperature Low Limit
- Over/Under Voltage or Phase Loss Protection
- High Ambient Limit (burner cutoff)
- Gas Pressure Switches (high, low, or both)

FIELD INSTALLED OPTIONS

- Variable Frequency Drive (factory-installed is also available)
- Downturn Nozzles (25-65° or 50-90°) with directional louvers
- Thermostats to match analog controls
- Gas Pressure Regulator
- Smoke Detector (in ductwork)
- Remote Control Console and Unit Monitoring
- Main Unit Disconnect Switch
- Vent Cap
- M-Series condenser

REZNOR®

Model PDH (cont'd)

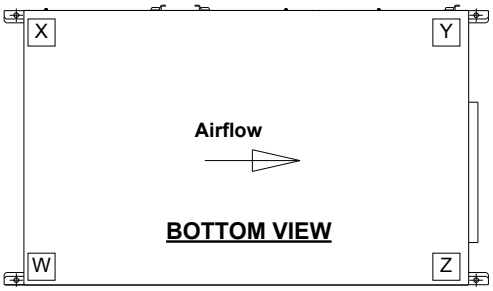
TECHNICAL DATA

Model PDH		Size	75	100	125	150	175	200	225	250	300	350	400A
Input Heating Capacity*		Btuh	75,000	100,000	125,000	150,000	175,000	200,000	225,000	250,000	300,000	350,000	400,000
		kw/h	22.0	29.3	36.6	43.9	51.2	58.6	65.9	73.2	87.8	102.5	117.1
Output Heating Capacity (81% Thermal Efficiency)		Btuh	60,750	81,000	101,250	121,500	141,750	162,000	182,250	202,500	243,000	283,500	324,000
		kw/h	17.8	23.7	29.6	35.6	41.5	47.4	53.4	59.3	71.2	83.0	94.9
Control Amps (24 volt)			1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Full Load Amps (115 volt, less motor)			1.2	1.2	1.2	0.9	0.9	1.7	1.7	1.7	3.0	3.0	3.0
Blower	Size	inches	10x10	10x10	(2) 9x7	(2) 9x7	12x12	12x12	12x12	(2)12x7	(2)12x7	(2)12x12	(2)12x12
	Min Airflow Heating**	cfm	469	625	781	938	1094	1250	1406	1563	1875	2188	2500
		m3/min	13	18	22	27	31	35	40	44	53	62	71
	Max Airflow Heating	cfm	1406	1875	2344	2813	3281	3750	4219	4688	5625	6563	7500
		m³/min	16	21	27	32	37	42	48	53	64	74	85
	Min Airflow Cooling**	cfm	583	583	826	826	917	917	917	1537	1537	1843	1843
		m³/min	17	17	23	23	26	26	26	44	44	52	52
	Max Airflow Cooling	cfm	1406	1875	2344	2813	2916	2916	2916	4688	4691	5061	5861
		m³/min	40	53	66	80	83	83	83	133	133	143	166
Vent Connection Diameter		inches	4	4	4	5	5	5	5	6	6	6	6
Maximum Vent Length		feet	30	40	35	35	35	50	50	50	50	50	50
		meters	9.14	12.19	10.67	10.67	10.67	15.24	15.24	15.24	15.24	15.24	15.24
Gas Connection	Natural	inches	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4	3/4	3/4	3/4
	Propane	inches	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4	3/4	3/4	3/4
Ship Weight (basic unit only; add module wts)		lbs	421	433	545	553	645	659	659	863	877	1008	1019
		kg	(191)	(196)	(247)	(251)	(293)	(299)	(299)	(391)	(398)	(457)	(462)
Net Weight (basic unit only; add module wts)		lbs	323	331	413	421	478	492	492	615	629	721	732
		kg	(146)	(150)	(187)	(191)	(217)	(223)	(223)	(279)	(285)	(327)	(332)
Filter (Qty) and Size (Factory-installed filters are optional.)			(2) 16x25	(2) 16x25	(2) 20x25	(2) 20x25	(2) 16x16 (2) 16x20	(2) 16x16 (2) 16x20	(2) 16x16 (2) 16x20	(3) 16x16 (3) 16x20	(3) 16x16 (3) 16x20	(1) 16x16 (2) 20x20 (3) 16x20	(1) 16x16 (2) 20x20 (3) 16x20

For altitude adjustment, see the High Altitude Capacity Changes tables.
**** Does not include motor heat.***
***** The minimum and maximum heating CFM based upon a temperature rise range from 40°F thru 120°F temperature rise. The maximum and minimum cooling CFM is based upon air velocity ranges of 200 FPM thru 500 FPM. The actual CFM may be limited by e.s.p., design conditions, selected options, elevation and other items.***

Corner Weights***

Size		W	X	Y	Z
75	lbs.	70	63	92	98
	(kg.)	(32)	(29)	(42)	(44)
100	lbs.	70	63	96	102
	(kg.)	(32)	(29)	(44)	(46)
125	lbs.	92	87	113	121
	(kg.)	(42)	(39)	(51)	(55)
150	lbs.	92	87	117	125
	(kg.)	(42)	(39)	(53)	(57)
175	lbs.	80	74	156	168
	(kg.)	(36)	(34)	(71)	(76)
200	lbs.	80	74	163	175
	(kg.)	(36)	(34)	(74)	(79)
225	lbs.	80	74	163	175
	(kg.)	(36)	(34)	(74)	(79)
250	lbs.	124	110	180	201
	(kg.)	(56)	(50)	(82)	(91)
300	lbs.	124	110	187	208
	(kg.)	(56)	(50)	(85)	(94)
350	lbs.	158	155	198	210
	(kg.)	(72)	(70)	(90)	(95)
400	lbs.	158	155	202	217
	(kg.)	(72)	(70)	(92)	(98)



****** Corner weights are for base unit and include standard controls only. Weights do not include motor, double wall construction, or any optional accessories such as cooling coil cabinet, or mixing box.***

REZNOR®
PREEVA®

MODEL PEH
Indoor, Electric Heat
Packaged Split System

Model PEH

DESCRIPTION

The Model PEH is the new indoor electric heat ventilation air handler. The PEH comes in 4 cabinet sizes featuring a total of 13 electric heat sizes. When matched with the optional SCR modulating control, the air handler provides precise heating for standard room heating to 100% outside air ventilation applications.

Standard features include high temperature limit control, unit mounted disconnect, and centrifugal belt-driven blower capable of up to 3" w.c. of total static pressure, Both the forward curved blower and the blower motor are factory installed on vibration isolation mounts. All published airflow data are supported by AMCA tested and rated airflow performance curves. The energy usage of the system has been designed to meet the current ASHRAE Standard 90.1 (maximum 1.2 bhp per 1000 cfm).

Optional features include factory-assembled, modular sections — **a draw-through cooling coil cabinet module** with either chilled water or DX coil and **an inlet air mixing box module** with a variety of configurations and damper options. The optional dH cooling module also provides dehumidification of 100% outside air or a mixture of outside/return air. The self contained dedicated Re-Heat pump™ provides 12°F to 17°F reheat temperature rise from the main evaporator coil discharge. The DX cooling coils are optimized for best performance when the reheat pump is on and off. For precise control, modulating reheat can be added. A complete heating and cooling advanced digital control package is available in addition to common industry standard analog heating only and makeup air controls. (See the list on the below for many more features to select.)

STANDARD FEATURES

- ETL certification
- 20°-75°F temperature rise (20° temperature rise not available on all sizes. See technical data table.)
- Circuit breaker protected transformer for 24-volt controls
- High temperature limit control
- Vibration/noise isolated blower(s) and blower motor with rubber isolators (optional spring isolators)
- L50 bearing rating with a life expectancy of 150,000 hours
- Reverse airflow limit switch
- Airflow pressure switch to verify circulating blower operation on makeup air options
- Socketed, high quality switching relays to facilitate service
- All service connections from a single side
- Through-the-cabinet or through-the-base electrical
- Three hinged service doors with heavy duty hardware
- Pre-coat white gloss cabinet finish
- 4-point base suspension; or slab or floor mounting
- Fork lift openings built into the heavy gauge steel base
- Discharge Duct Flange

FACTORY INSTALLED OPTIONS

- Controls
  - ♦ Space Temperature Heating only
    - — Analog single or two-stage thermostat control (thermostat is available as a shipped-separate accessory or may be field-supplied)
  - ♦ Space Temperature Heating/Cooling
    - — Digital two-stage heating/three-stage cooling with room command module
    - — Digital electronic modulation heating three-stage cooling with room command module, reheat control, reheat control
  - ♦ Discharge Temperature Heating/Cooling Makeup Air
    - — Digital two-stage heating/three-stage cooling with room command module reset
    - — Digital electronic modulation heating three-stage cooling with room command module reset, reheat control
- Supply Voltage - 208/1; 230/1; 208/3; 230/3; 460/3; 575/3
- UV Germicidal Lamps - Ultraviolet Emitter for neutralization of VOCs and airborne micro-organisms for improved IAQ - not filtration. (Requires Cooling Coil Cabinet Option AU. Separate 208/1 or 230/1 wiring/breaker and a separate disconnect must be provided.)
- Inlet Air Filters - 1" or 2" disposable or permanent; 1", 2", or 4" pleated disposable; arranged in vertical flat bank for ease of service

**** U.S. Patent No. 6,889,686***

REZNOR®

Model PEH (cont'd)

FACTORY INSTALLED OPTIONS (cont'd)

- Cabinet Configuration and Construction
  - Left or right side controls
  - No insulation; single or double wall with standard or high R-value insulation
  - Blower cabinet screen, inlet duct connection flange, or inlet on/off damper with duct flange
- Mixing Box Module
  - five inlet configuration combinations including top, bottom, and rear
  - manual, motorized 2 or 3 position, or motorized modulating return air or outside air and return air dampers
  - direct-coupled 24VAC damper actuators
  - damper control selections such as 0-135 ohms resistance potentiometer, building pressure, or 0-10 v control
- Blower Motor (1/4 to 5 HP) - see pressure drops and blower charts
  - open dripproof, TEFC, or premium efficiency
  - adjustable sheave and belt
  - motor contactor; IEC motor starter; or factory-installed variable frequency drive
- Cooling Coil Module with coil
  - DX coil (single, dual or 1/3-2/3 circuit; galvanized or stainless casing; copper or aluminum fins (coated or uncoated) - non-ozone depleting, R410A refrigerant
  - DX coil module with dehumidification control. Single, dual and 1/3-2/3 circuit; Galvanized or stainless casing; Copper or aluminum fins; Coated and uncoated; Modulating or standard reheat control
  - chilled water coil (3-45 tons; 1/4, 1/2, 3/4, or full circuiting; galvanized or stainless casing; copper or aluminum fins (coated or uncoated)
- Evaporative Cooling Module
  - white pre-painted or 300 series stainless steel cabinet
  - 300 series stainless steel reservoir
  - recirculating pump or AquaSaver microprocessor-based, timed water distribution system
  - 6" or 12" Glacier-Cor® or optional Glas-dek® UL 900 Class II noncombustible media
  - 1" or 2" aluminum pre-filter
  - freeze protection kit (factory-installed)
  - automatic fill and drain kit (field-installed)
  - water hammer arrestor (field installed)
- Unit mounted, lockable, non-fused service on/off switch
- Convenience Outlet (requires separate power supply)
- Firestat
- Discharge Temperature Low Limit
- Over/Under Voltage or Phase Loss Protection

FIELD INSTALLED OPTIONS

- Variable Frequency Drive (factory-installed is also available)
- Smoke Detector (in ductwork)
- Remote Control Console and Unit Monitoring
- Main Unit Disconnect Switch
- M-Series condenser

REZNOR®

Model PEH (cont'd)

TECHNICAL DATA

PreevA Electic Heat (Models PEH)		Cabinet Size	A			B			D				E		
		Unit Size	10A*	20A	40A	15B*	30B	60B	30D	60D	90D	120D	40E	80E	120E
Heating Capacity		kW Size	10	20	40	15	30	60	30	60	90	120	40	80	120
		BTUequiv	34.2	68.3	136.7	51.3	102.5	205.0	102.5	205.0	307.5	410.0	136.7	273.4	410.0
		BTUequiv*** (208V Power)	25.6	51.3	102.5	38.4	76.9	153.8	76.9	153.8	230.6	307.5	102.5	205.0	307.5
Weight lbs - (kg) (Base Only, Add Module wts)		PEH	402	402	402	524	524	524	774	774	774	774	881	881	881
			(182)	(182)	(182)	(238)	(238)	(238)	(351)	(351)	(351)	(351)	(400)	(400)	(400)
Blower	Size	inches	10x10			(2) 9x7			(2)12x7				(2)12x12		
	Min Airflow Heating	Temp. Rise (°F)	75	75	75	75	75	75	75	75	75	75	75	75	75
		cfm	421	842	1685	632	1264	2527	1264	2527	3791	5055	1685	3370	5055
		m3/min	12	24	48	18	36	72	36	72	107	143	48	95	143
	Max Airflow Heating	Temp. Rise (°F)	20	20	33	20	20	40	20	27	41	54	20	30	45
		cfm	1580	3159	3829	2369	4739	4739	4739	7021	6935	7021	6319	8425	8425
		m^3/min	45	89	108	67	134	134	134	199	196	199	179	239	239
	Min Airflow Cooling**	cfm	583	583	583	826	826	826	1537	1537	1537	1537	1843	1843	1843
		m^3/min	17	17	17	23	23	23	44	44	44	44	52	52	52
	Max Airflow Cooling	cfm	1875	1875	1875	2813	2813	2813	4691	4691	4691	4691	5861	5861	5861
		m^3/min	53	53	53	80	80	80	133	133	133	133	166	166	166
Filters (qty and Size (Factory Installed Filters are optional)			(2) 16x25			(2) 20x25			(3) 16x16 (3) 16x20				(1) 16x16 (2) 20x20 (3) 16x20		

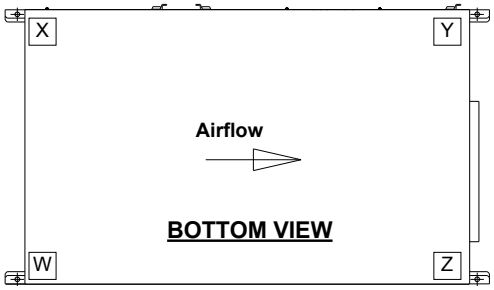
**Electric heat: 10A & 15B single phase 115/230V, 20A single and 3 Phase, All other sizes 3 phase 208-575V power*

*** The maximum and minimum cooling CFM is based upon air velocity ranges of 200 FPM thru 500 FPM. The actual CFM may be limited by e.s.p., design conditions, selected options, elevation and other items.*

****Derate electric heat output by 25% for all 208V systems.*

Corner Weights****

Cabinet Size		W	X	Y	Z
A	lbs.	70	63	96	102
	(kg.)	(32)	(29)	(44)	(46)
B	lbs.	92	87	117	125
	(kg.)	(42)	(39)	(53)	(57)
D	lbs.	124	110	187	208
	(kg.)	(56)	(50)	(85)	(94)
E	lbs.	158	155	202	217
	(kg.)	(72)	(70)	(92)	(98)



***** Corner weights are for base unit and include standard controls only. Weights do not include motor, double wall construction, or any optional accessories such as cooling coil cabinet, or mixing box.*

REZNOR®
PREEVA®

MODEL RDH
Rooftop, Power-Vented Packaged Heating System

CSA 2.6
ANSI Z83.8

DESCRIPTION

Model RDH is the new rooftop, indirect-fired, power-vented addition to the Reznor® line of Pre-Engineered Ventilation Air-Handlers (PREEVA®).

Model RDH is available in 11 sizes from 75 MBH to 400 MBH. Each size is designed for a minimum 81% thermal efficiency and is available for use with either natural gas or propane. Model RDH rooftop, power-vented heaters are approved for commercial/industrial installations in the United States and Canada by the ETL Testing Agency.

Model RDH

Standard features include the Reznor TCORE2® heat exchanger and single burner combustion system, a multi-try direct spark ignition with 100% lockout, pressure switch to verify venter flow, resiliently isolated venter motor, a high temperature limit control, and a centrifugal belt-driven blower capable of up to 3" w.c. of total static pressure. Both the forward curved blower and the blower motor are factory installed on vibration isolation mounts. All published airflow data are supported by AMCA tested and rated airflow performance curves. The energy usage of the system has been designed to meet the current ASHRAE Standard 90.1 (maximum 1.2 bhp per 1000 cfm).

Operation is controlled through an integrated circuit board. The circuit board monitors heater operation and has LED diagnostic indicator lights to identify abnormalities in heating control functions.

The unit also provides dehumidification of 100% outside air or a mixture of outside/return air. The self contained dedicated Re-Heat pump™, provides 12°F to 17°F reheat temperature rise from the main evaporator coil discharge. The DX cooling coils are optimized for best performance when the reheat pump is on and off. For precise control, modulating reheat can be added.

Optional features include factory-assembled, modular sections — **a draw-through cooling coil cabinet module** with either chilled water or DX coil; an **inlet air mixing box module** with a variety of configurations and damper options; and an **evaporative cooling module**. A complete heating and cooling advanced digital control package is available in addition to common industry standard analog heating only and makeup air controls. (See the list on the below for many more features to select.)

STANDARD FEATURES

- Patented* TCORE2® Combustion System - includes Titanium Stabilized Aluminized Steel Heat Exchanger
- ETL certification
- Minimum 81% thermal efficiency
- Maximum 70°F temperature rise (optional 120°F)
- Double wall cabinet with insulation
- Pre-coat white gloss cabinet finish, 60 gloss minimum and RAL 9001, meets ASTM B117 specification for salt spray for 1,000 hours
- Circuit breaker protected transformer for 24-volt controls
- Integrated circuit board with diagnostic indicator lights
- Multi-try direct ignition with 100% lockout
- High temperature limit control
- Vibration/noise isolated venter motor, blower(s) and blower motor (spring or rubber isolators)
- L50 bearing rating with a life expectancy of 150,000 hours
- Reverse airflow limit switch
- Airflow pressure switch to verify circulating blower operation on makeup air options
- Easily convertible single gas orifice system
- Socketed, high quality switching relays to facilitate service
- All service connections from a single side
- Through-the-cabinet gas connection
- Through-the-cabinet or through the base electrical connection
- Engineered condensate management
- Three hinged service doors with heavy duty hardware
- 4-point lift eyes on base of unit
- Slab or roof mounting
- Heavy gauge steel base
- Stainless steel removable drain pan
- Discharge duct flange

FACTORY INSTALLED OPTIONS

- Stainless Steel Heat Exchanger - 409 or 316 (stainless steel heat exchanger required for 70° - 120°F temperature rise)
- **Heat Exchanger Extended Warranty** - 5-year or 10-year
- Natural Gas or Propane
- UV Germicidal Lamps - Ultraviolet Emitter for neutralization of VOCs and airborne micro-organisms for improved IAQ - not filtration. (Requires Cooling Coil Cabinet Option AU. Separate 115/1 or 208/1 or 230/1 wiring/breaker and a separate disconnect must be provided.)
- Supply Voltage - 115/1; 208/1; 230/1; 208/3; 230/3; 460/3; 575/3
- Unit mounted, lockable, non-fused service on/off switch

U.S. Patent No. 6,889,686

REZNOR®

Model RDH (cont'd)

FACTORY INSTALLED OPTIONS (cont'd)

- Inlet Air Filters - 1" or 2" disposable or permanent; 1", 2", or 4" pleated disposable; arranged in vertical flat bank for ease of service
- Convenience Outlet (requires separate power supply)
- Controls
  - ♦ Space Temperature Heating only
    - —Analog single or two-stage gas valve with room thermostat control (thermostat is available as a shipped-separate accessory or may be field-supplied)
  - ♦ Space Temperature Heating/Cooling
    - —Digital two-stage heating/three-stage cooling with room command module
    - —Digital electronic modulation heating (25% low fire - natural gas, 40% low fire - propane)/ two-stage cooling with room command module
  - ♦ Discharge Temperature Makeup Air (Heating only)
    - —Analog 2-stage with 2-stage ductstat or electronic sensor and 2-stage valve
  - ♦ Discharge Temperature Heating/Cooling Makeup Air
    - —Digital two-stage heating/three-stage cooling with room command module
    - —Digital electronic modulation heating (25% low fire - natural gas, 40% low fire - propane)/ three-stage cooling with room command module, reheat controls
    - —Building management system ready package
- Cabinet Configuration and Construction (Double Wall)
  - —Left or right side controls
  - —High R-value insulation
  - —Inlet duct connection flange
- Mixing Box Module (Double Wall)
  - —three inlet configuration combinations with 100% bottom return air opening and/or 100% outside air rear opening
  - —inlet air configuration with 30% outside air opening and 100% return air opening
  - —manual, motorized 2 or 3 position, or motorized modulating return air or outside air and return air dampers
  - —direct-coupled 24VAC damper actuators
  - —damper control selections such as 0-135 ohms resistance potentiometer, building pressure, or 0-10 v control
  - —Bottom return air screen
- Downturn Plenum Cabinet (Double Wall)
  - —shutoff dampers
- Blower Motor (1/4 to 5 HP) - see pressure drops and blower charts
  - —open dripproof, TEFC, or premium efficiency
  - —adjustable sheave and belt
  - —motor contactor; IEC motor starter; or factory-installed variable frequency drive (only to be used when ambient air is above 18°F)
  - —Cooling Coil Module with...
  - —DX coil (single, dual or 1/3-2/3 circuit; galvanized or stainless casing; copper or aluminum fins (coated or uncoated) - non-ozone depleting, R410A refrigerant
  - —DX coil module with dehumidification control. Single, dual and 1/3-2/3 circuit, main DX coil with modulating or standard reheat control
  - —Chilled water coil (3-45 tons; 1/4, 1/2, 3/4, or full circuiting; galvanized or stainless casing; copper or aluminum fins (coated or uncoated)
- Evaporative Cooling Module
  - —white pre-painted or 300 series stainless steel cabinet
  - —300 series stainless steel reservoir
  - —recirculating pump or AquaSaver microprocessor-based, timed water distribution system
  - —6" or 12" Glacier-Cor® or optional Glas-dek® UL 900 Class II noncombustible media
  - —1" or 2" aluminum pre-filter
  - —freeze protection kit (factory-installed)
  - —automatic fill and drain kit (field-installed)
  - —water hammer arrestor (field installed)
- Firestat
- Discharge Temperature Low Limit
- Over/Under Voltage or Phase Loss Protection
- High Ambient Limit (burner cutoff)
- Gas Pressure Switches (high, low, or both)

FIELD INSTALLED OPTIONS

- Variable Frequency Drive (factory-installed is also available)
- Thermostats to match analog controls
- Gas Pressure Regulator
- Smoke Detector (in ductwork)
- Remote Control Console and Unit Monitoring
- Fusible and Non-Fused Disconnect Switch (NEMA 3R)
- Vent Vertical Extension Kit
- 16" Insulated Roof Curb
- Intake Air Hood with Rain Baffles
- Perimeter roof curb transitions to (C)RGB/RPB roof curbs (for Model RDH replacement of Models (C)RGB/RPB)
- M-Series condenser

REZNOR®

Model RDH (cont'd)

TECHNICAL DATA

Model RDH Size			75	100	125	150	175	200	225	250	300	350	400A
Cabinet Size			A		B		C			D		E	
Input Heating Capacity*		Btuh	75,000	100,000	125,000	150,000	175,000	200,000	225,000	250,000	300,000	350,000	400,000
		kw/h	22.0	29.3	36.6	43.9	51.2	58.6	65.9	73.2	87.8	102.5	117.1
Output Heating Capacity (81% Thermal Efficiency)		Btuh	60,750	81,000	101,250	121,500	141,750	162,000	182,250	202,500	243,000	283,500	324,000
		kw/h	17.8	23.7	29.6	35.6	41.5	47.4	53.4	59.3	71.2	83.0	94.9
Control Amps (24 volt)			1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Full Load Amps (115 volt, less motor)			1.2	1.2	1.2	0.9	0.9	1.7	1.7	1.7	3.0	3.0	3.0
Blower	Size	inches	10x10	10x10	(2) 9x7	(2) 9x7	12x12	12x12	12x12	(2)12x7	(2)12x7	(2)12x12	(2)12x12
	Min Airflow Heating**	cfm	469	625	781	938	1094	1250	1406	1563	1875	2188	2500
		m3/min	13	18	22	27	31	35	40	44	53	62	71
	Max Airflow Heating	cfm	1406	1875	2344	2813	3281	3750	4219	4688	5625	6563	7500
		m^3/min	16	21	27	32	37	42	48	53	64	74	85
	Min Airflow Cooling**	cfm	583	583	826	826	917	917	917	1537	1537	1843	1843
		m^3/min	17	17	23	23	26	26	26	44	44	52	52
	Max Airflow Cooling	cfm	1406	1875	2344	2813	2916	2916	2916	4688	4691	5061	5861
		m^3/min	40	53	66	80	83	83	83	133	133	143	166
Gas Connection	Natural	inches	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4	3/4	3/4	3/4
	Propane	inches	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4	3/4	3/4	3/4
Ship Weight (basic unit only; add module wts)		lbs	453	466	586	595	693	719	719	925	940	1,080	1,092
		kg	(205)	(211)	(266)	(270)	(314)	(326)	(326)	(420)	(426)	(490)	(495)
Net Weight (basic unit only; add module wts)***		lbs	355	364	454	463	526	552	552	677	692	793	805
		kg	(161)	(165)	(206)	(210)	(239)	(250)	(250)	(307)	(314)	(360)	(365)
Filter (Qty) and Size (Factory-installed filters are optional.)			(2) 16x25	(2) 16x25	(2) 20x25	(2) 20x25	(2) 16x16 (2) 16x20	(2) 16x16 (2) 16x20	(2) 16x16 (2) 16x20	(3) 16x16 (3) 16x20	(3) 16x16 (3) 16x20	(1) 16x16 (2) 20x20 (3) 16x20	(1) 16x16 (2) 20x20 (3) 16x20

**** Does not include motor heat.***
***** The minimum and maximum heating CFM based upon a temperature rise range from 40°F thru 120°F temperature rise. The maximum and minimum cooling CFM is based upon air velocity ranges of 200 FPM thru 500 FPM. The actual CFM may be limited by e.s.p., design conditions, selected options, elevation and other items.***

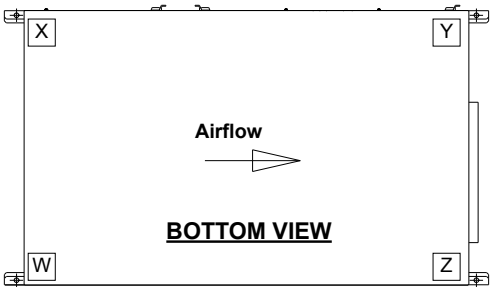
Downturn Plenum Weight

- Add weight below to unit weight in Technical Data Table. Downturn Plenum Option AQ5 or AQ8 available on Model RDH Only.

Model RDH Size			75-100	125-225	250-300	350-400A
Downturn Plenum Only Net Weight	Option AQ5 Bottom Opening	lbs	140	158	190	206
		kg	63	72	86	93
	Option AQ8 Bottom Opening & 2 Position Damper	lbs	156	176	211	229
		kg	71	80	96	104

Corner Weights****

Size		W	X	Y	Z
75	Lbs.	77	69	101	108
	(kg.)	(35)	(31)	(46)	(49)
100	Lbs.	79	71	104	110
	(kg.)	(36)	(32)	(47)	(50)
125	Lbs.	98	89	129	138
	(kg.)	(44)	(40)	(59)	(63)
150	Lbs.	100	90	132	140
	(kg.)	(45)	(41)	(60)	(64)
175	Lbs.	114	103	150	160
	(kg.)	(52)	(47)	(68)	(73)
200	Lbs.	117	106	154	164
	(kg.)	(53)	(48)	(70)	(74)
225	Lbs.	120	108	157	167
	(kg.)	(54)	(49)	(71)	(76)
250	Lbs.	147	132	193	205
	(kg.)	(67)	(60)	(88)	(93)
300	Lbs.	150	135	197	210
	(kg.)	(68)	(61)	(89)	(95)
350	Lbs.	172	155	226	241
	(kg.)	(78)	(70)	(103)	(109)
400A	Lbs.	174	157	229	244
	(kg.)	(79)	(71)	(104)	(111)



******* Corner weights are for base unit and include standard controls only. Weights do not include motor, double wall construction, or any optional accessories such as cooling coil cabinet, or mixing box.***

REZNOR®
PREEVA®

MODEL REH
Rooftop, Electric Heat Packaged Split System

Model REH

DESCRIPTION

The Model REH is the new outdoor electric heat ventilation air handler. The REH comes in 4 cabinet sizes featuring a total of 13 electric heat sizes. When matched with the optional SCR modulating control, the air handler provides precise heating for standard room heating to 100% outside air ventilation applications.

Standard features include high temperature limit control, unit mounted disconnect, and centrifugal belt-driven blower capable of up to 3" w.c. of total static pressure, Both the forward curved blower and the blower motor are factory installed on vibration isolation mounts. All published airflow data are supported by AMCA tested and rated airflow performance curves. The energy usage of the system has been designed to meet the current ASHRAE Standard 90.1 (maximum 1.2 bhp per 1000 cfm).

Optional features include factory-assembled, modular sections — a draw-through cooling coil cabinet module with either chilled water or DX coil and an inlet air mixing box module with a variety of configurations and damper options. The optional dH cooling module also provides dehumidification of 100% outside air or a mixture of outside/return air. The self contained dedicated Re-Heat pump™ provides 13°F-20°F reheat temperature rise from the main evaporator coil discharge. The DX cooling coils are optimized for best performance when the reheat pump is on and off. For precise control, modulating reheat can be added. A complete heating and cooling advanced digital control package is available in addition to common industry standard analog heating only and makeup air controls. (See the list on the below for many more features to select.)

STANDARD FEATURES

- ETL certification
- 20°-75°F temperature rise
- Double wall cabinet with insulation
- Pre-coat white gloss cabinet finish, 60 gloss minimum and RAL 9001, meets ASTM B117 specification for salt spray for 1,000 hours
- Circuit breaker protected transformer for 24-volt controls
- High temperature limit control
- Vibration/noise isolated blower(s) and blower motor with rubber isolators (or optional spring isolators)
- L50 bearing rating with a life expectancy of 150,000 hours
- Reverse airflow limit switch
- Airflow pressure switch to verify circulating blower operation on makeup air options
- Socketed, high quality switching relays to facilitate service
- All service connections from a single side
- Through-the-cabinet or through-the-base electrical
- Engineered condensate management
- Three hinged service doors with heavy duty hardware
- 4-point lift eyes on base of unit
- Slab or roof mounting
- Heavy gauge steel base
- Stainless steel removable drain pan
- Discharge duct flange

FACTORY INSTALLED OPTIONS

- UV Germicidal Lamps - Ultraviolet Emitter for neutralization of VOCs and airborne micro-organisms for improved IAQ - not filtration. (Requires Cooling Coil Cabinet Option AU. Separate 208/1 or 230/1 wiring/breaker and a separate disconnect must be provided.)
- Supply Voltage - 208/1; 230/1; 208/3; 230/3; 460/3; 575/3
- Unit mounted, lockable, non-fused service on/off switch
- Inlet Air Filters - 1" or 2" disposable or permanent; 1", 2", or 4" pleated disposable; arranged in vertical flat bank for ease of service
- Convenience Outlet (requires separate power supply)
- Controls
  - Space Temperature Heating only
    - Analog single or two-stage room thermostat control (thermostat is available as a shipped-separate accessory or may be field-supplied)
  - Space Temperature Heating/Cooling
    - Digital two-stage heating/three-stage cooling with room command module
    - Digital electronic modulation heating three-stage cooling with room command module
  - Discharge Temperature Heating/Cooling Makeup Air
    - Digital two-stage heating/three-stage cooling with room command module
    - Digital electronic modulation heating three-stage cooling with room command module, reheat controls
    - Building management system ready package

U.S. Patent No. 6,889,686

REZNOR®

Model REH (cont'd)

FACTORY INSTALLED OPTIONS (cont'd)

- Cabinet Configuration and Construction (Double Wall)
  - Left or right side controls
  - High R-value insulation
  - Inlet duct connection flange
- Mixing Box Module (Double Wall)
  - three inlet configuration combinations with 100% bottom return air opening and/or 100% outside air rear opening
  - inlet air configuration with 30% outside air opening and 100% return air opening
  - manual, motorized 2 or 3 position, or motorized modulating return air or outside air and return air dampers
  - direct-coupled 24VAC damper actuators
  - damper control selections such as 0-135 ohms resistance potentiometer, building pressure, or 0-10 v control
  - Bottom return air screen
- Downturn Plenum Cabinet (Double Wall)
  - shutoff dampers
- Blower Motor (1/4 to 5 HP) - see pressure drops and blower charts
  - open dripproof, TEFC, or premium efficiency
  - adjustable sheave and belt
  - motor contactor; IEC motor starter; or factory-installed variable frequency drive (only to be used when ambient air is above 18°F)
- Cooling Coil Module with coil
  - DX coil (single, dual or 1/3-2/3 circuit; galvanized or stainless casing; copper or aluminum fins (coated or uncoated) - non-ozone depleting, R410A refrigerant
  - DX coil module with dehumidification control. Single, dual and 1/3-2/3 circuit; Galvanized or stainless casing; Copper or aluminum fins; Coated and uncoated; Modulating or standard reheat control
  - chilled water coil (3-45 tons; 1/4, 1/2, 3/4, or full circuiting; galvanized or stainless casing; copper or aluminum fins (coated or uncoated)
- Evaporative Cooling Module
  - white pre-painted or 300 series stainless steel cabinet
  - 300 series stainless steel reservoir
  - recirculating pump or AquaSaver microprocessor-based, timed water distribution system
  - 6" or 12" Glacier-Cor® or optional Glas-dek® UL 900 Class II noncombustible media
  - 1" or 2" aluminum pre-filter
  - freeze protection kit (factory-installed)
  - automatic fill and drain kit (field-installed)
  - water hammer arrestor (field installed)
- Firestat
- Discharge Temperature Low Limit
- Over/Under Voltage or Phase Loss Protection

FIELD INSTALLED OPTIONS

- Variable Frequency Drive (factory-installed is also available)
- Smoke Detector (in ductwork)
- Remote Control Console and Unit Monitoring
- Fusible and Non-Fused Disconnect Switch (NEMA 3R)
- 16" Insulated Roof Curb
- Intake Air Hood with Rain Baffles
- Perimeter roof curb transitions to (C)RGB/RPB roof curbs (for Model REH replacement of Models (C)RGB/RPB)
- M-Series condenser

REZNOR®
TECHNICAL DATA

Model REH (cont'd)

PreevA Electic Heat (Model REH)		Cabinet Size	A			B			D				E		
		Unit Size	10A*	20A	40A	15B*	30B	60B	30D	60D	90D	120D	40E	80E	120E
Heating Capacity*		kW Size	10	20	40	15	30	60	30	60	90	120	40	80	120
		BTUequiv	34.2	68.3	136.7	51.3	102.5	205.0	102.5	205.0	307.5	410.0	136.7	273.4	410.0
		BTUequiv*** (208V Power)	25.6	51.3	102.5	38.4	76.9	153.8	76.9	153.8	230.6	307.5	102.5	205.0	307.5
Weight lbs - (kg)** (Base Only, Add Module wts)		REH	442	442	442	524	524	524	794	794	794	794	901	901	901
			(200)	(200)	(200)	(238)	(238)	(238)	(360)	(360)	(360)	(360)	(409)	(409)	(409)
Blower	Size	inches	10x10			(2) 9x7			(2)12x7				(2)12x12		
	Min Airflow Heating**	cfm	422	844	1687	633	1266	2531	1266	2531	3797	5062	1687	3375	5062
		m3/min	12	24	48	18	36	72	36	72	108	143	48	96	143
	Max Airflow Heating	cfm	1281	2563	5126	1922	3844	7688	3844	7688	11532	15377	5126	10251	15377
		m^3/min	36	73	145	54	109	218	109	218	327	435	145	290	435
	Min Airflow Cooling**	cfm	583	583	583	826	826	826	1537	1537	1537	1537	1843	1843	1843
		m^3/min	17	17	17	23	23	23	44	44	44	44	52	52	52
	Max Airflow Cooling	cfm	1875	1875	1875	2813	2813	2813	4691	4691	4691	4691	5861	5861	5861
		m^3/min	53	53	53	80	80	80	133	133	133	133	166	166	166
Filters (qty and Size (Factory Installed Filters are optional)			(2) 16x25			(2) 20x25			(3) 16x16 (3) 16x20				(1) 16x16 (2) 20x20 (3) 16x20		

**** Does not include motor heat.***
***** The minimum and maximum heating CFM based upon a temperature rise range from 20°F thru 75°F temperature rise. The maximum and minimum cooling CFM is based upon air velocity ranges of 200 FPM thru 500 FPM. The actual CFM may be limited by e.s.p., design conditions, selected options, elevation and other items.***
****** Derate electric heat output by 25% for all 208V systems.***

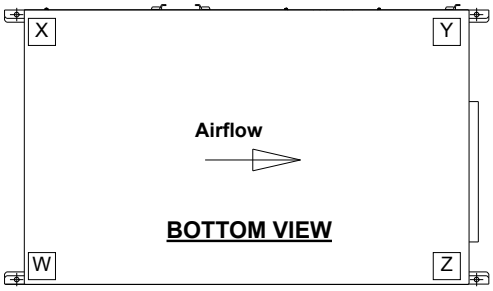
Downturn Plenum Weight

- Add weight below to unit weight in Technical Data Table. Downturn Plenum Option AQ5 or AQ8 available on Model RDH or REH Only.

Model REH Cabinet Size			A	B	D	E
Downturn Plenum Only Net Weight	Option AQ5 - Bottom Opening	lbs	140	158	190	206
		kg	(63)	(72)	(86)	(93)
	Option AQ8 - Bottom Opening & 2 Position Damper	lbs	156	176	211	229
		kg	(71)	(80)	(96)	(104)

Corner Weights****

Cabinet Size		W	X	Y	Z
A	Lbs.	79	71	104	110
	(kg.)	(36)	(32)	(47)	(50)
B	Lbs.	100	90	132	140
	(kg.)	(45)	(41)	(60)	(64)
D	Lbs.	150	135	197	210
	(kg.)	(68)	(61)	(89)	(95)
E	Lbs.	174	157	229	244
	(kg.)	(79)	(71)	(104)	(111)



******* Corner weights are for base unit and include standard controls only. Weights do not include motor, double wall construction, or any optional accessories such as cooling coil cabinet, or mixing box.***

REZNOR®

DIMENSIONS

Models PDH, PEH, SDH, and SHH

Dimensions apply to all models listed above unless otherwise noted.

NOTES:

Factory-assembled Configurations Depending on Option Selection and KEY to Dimensions A, C, and E.

1) Dimensions **A**, **C**, and **E** change with selection of factory-installed modules; see Key above.

- Dimension A - Corner Suspension Points
- Dimension C - Cabinet Length
- Dimension E - Base Rail Length

On/Off Damper, Evaporative Cooling, and Cooling Coil Module WITH ReHeat are not available on Model SHH.

2) Suspension Point Dimensions **U**, **V**, and **W** apply ONLY to systems with a Cooling Coil Cabinet and/or a Mixing Box. A system with either module has two intermediate side hangers; a system with both modules has four intermediate side hangers.

The basic unit and the basic unit with an Evaporative Cooling Module do not require intermediate side suspension points.

3) Dimension **W1** applies to systems with a Mixing Box and a Coil Cabinet **without** reheat; **W2** applies to systems with a Mixing Box and a Coil Cabinet **with** reheat.

Evaporative Cooling Module	Mixing Box with Variety of Inlet Air Options	Opt On/Off Damper	Option Cooling Coil Module with DX or Chilled Water Coil with or without Reheat	Blower / Gas-Fired or Electric Heat Section / Air Flow →	Optional Discharge Accessories (factory or field installed)
Evap Clr	Mix Box	Dmpr	Coil Mod w/o Reheat / Coil Mod w/Reheat	BASIC	KEY to Dimension Codes A, C, and E in **TABLE 4 and FIGURE 2**
			Dmpr	Basic	A, C, E
			Mix Box	Basic	A, C + 10" (254mm), E
			Evap Clr	Basic	A1, C1, E1
			Coil Mod w/o Reheat	Basic	A1, C1, E1
			Coil Mod w/o Reheat	Basic	A2, C2, E2
		Dmpr	Coil Mod w/o Reheat	Basic	A2, C2 + 10" (254mm), E2
			Coil Mod w/Reheat	Basic	A3, C3, E3
		Dmpr	Coil Mod w/Reheat	Basic	A3, C3 + 10" (254mm), E3
	Evap Clr		Mix Box	Basic	A4, C4, E4
	Mix Box		Coil Mod w/o Reheat	Basic	A5, C5, E5
	Mix Box		Coil Mod w/Reheat	Basic	A6, C6, E6
	Evap Clr		Coil Mod w/o Reheat	Basic	A5, C5, E5
	Evap Clr		Coil Mod w/Reheat	Basic	A6, C6, E6
Evap Clr	Mix Box		Coil Mod w/o Reheat	Basic	A7, C7, E7
Evap Clr	Mix Box		Coil Mod w/Reheat	Basic	A8, C8, E8

Dimensions - inches (±1/8)

PDH or SDH	PEH	SHH	Dimensions (See FIGURES 1 and 2) - apply to all Models unless specified											
			A	A1	A2	A3	A4	A5	A6	A7	A8	B	C	C1
75, 100	10A, 20A, 40A	N/A	56-5/8	87-11/16	84-7/16	109-1/2	118-3/4	115-15/32	140-7/8	146-1/2	171-9/16	32-5/8	54-3/4	85-13/16
125, 150	15B, 30B, 60B	N/A	56-5/8	87-11/16	84-7/16	109-1/2	118-3/4	115-15/32	140-7/8	146-1/2	171-9/16	42-5/8	54-3/4	85-13/16
175, 200, 225	N/A	130, 180	PDH/SDH/PEH 72-5/16" SHH 82-5/16"	PDH/SDH/PEH 103-5/8" SHH 113-5/8"	PDH/SDH/PEH 100-1/8" SHH 110-5/8"	PDH/SDH/PEH 125-3/16 SHH N/A	PDH/SDH/PEH 134-7/16 SHH N/A	PDH/SDH/PEH 131-3/16" SHH 141-3/16"	PDH/SDH/PEH 156-1/4 SHH N/A	PDH/SDH/PEH 162-1/4 SHH N/A	PDH/SDH/PEH 187-5/16 SHH N/A	32-5/8	PDH/SDH/PEH 70-7/16" SHH 80-7/16"	PDH/SDH/PEH 101-1/2" SHH 111-1/2"
250, 300	30D, 60D, 90D, 120D	260										48-7/8		
350, 400A	40E, 80E, 120E	350										56-7/8		

PDH or SDH	PEH	SHH	Dimensions (See FIGURES 1 and 2) - apply to all Models unless specified										
			C2	C3	C4	C5	C6	C7	C8	D-SDH/HH	E	E1	E2	E3
75, 100	10A, 20A, 40A	N/A	82-9/16	107-5/8	116-7/8	113-5/8	138-11/16	144-11/16	169-3/4	4	59-5/8	90-21/32	87-13/32	112-15/32
125, 150	15B, 30B, 60B	N/A	82-9/16	107-5/8	116-7/8	113-5/8	138-11/16	144-11/16	169-3/4	4	59-5/8	90-21/32	87-13/32	112-15/32
175, 200, 225	N/A	130, 180	PDH/SDH/PEH 98-7/32" SHH 108-7/32"	PDH/SDH/PEH 123-9/32 SHH N/A	PDH/SDH/PEH 132-9/16 SHH N/A	PDH/SDH/PEH 129-19/64" SHH 139-19/64"	PDH/SDH/PEH 154-23/64 SHH N/A	PDH/SDH/PEH 160-11/32 SHH N/A	PDH/SDH/PEH 185-13/32 SHH N/A	5	PDH/SDH/PEH 75-5/16" SHH 85-5/16"	PDH/SDH/PEH 106-3/8" SHH 116-3/8"	PDH/SDH/PEH 103-7/64" SHH 113-7/64"	PDH/SDH/PEH 128-11/64 SHH N/A
250, 300	30D, 60D, 90D, 120D	260								5				
350, 400A	40E, 80E, 120E	350								5				

PDH or SDH	PEH	SHH	Dimensions (See FIGURES 1 and 2) - apply to all Models unless specified										
			E4	E5	E6	E7	E8	F	G	H-SDH/HH	J	K	M	N
75, 100	10A, 20A, 40A	N/A	121-23/32	118-15/32	143-17/32	149-17/32	174-19/32	20-25/32	17-7/8	3-5/8	16-51/64	33-3/4	24-11/16	34-15/32
125, 150	15B, 30B, 60B	N/A	121-23/32	118-15/32	143-17/32	149-17/32	174-19/32	20-25/32	17-7/8	3-5/8	16-51/64	43-3/4	34-11/16	34-15/32
175, 200, 225	N/A	130, 180	PDH/SDH/PEH 137-7/16 SHH N/A	PDH/SDH/PEH 134-11/64" SHH 144-11/64"	PDH/SDH/PEH 162-1/2 SHH N/A	PDH/SDH/PEH 165-1/4 SHH N/A	PDH/SDH/PEH 190-5/16 SHH N/A	PDH/SDH 32-1/32" SHH 42-15/16" PEH N/A	PDH/SDH 24-3/4" SHH 35-5/8" PEH N/A	4	PDH/SDH 17-7/32" SHH 17-7/16" PEH N/A	33-3/4	24-11/16	43-23/32
250, 300	30D, 60D, 90D, 120D	260								4		50	40-15/16	43-23/32
350, 400A	40E, 80E, 120E	350								4		58	48-15/16	43-23/32

PDH or SDH	PEH	SHH	Dimensions (See FIGURES 1 and 2) - apply to all Models unless specified									
			P	Q	R	S	T	U	V	W1	W2	X-PEH
75, 100	10A, 20A, 40A	N/A	27-11/32	17-23/32	5-3/64	13-13/16	2-27/32	35-3/4	55-15/32	83-1/4	108-5/16	21-11/16
125, 150	15B, 30B, 60B	N/A	27-11/32	27-23/32	5-3/64	13-13/16	2-27/32	45-3/4	55-15/32	83-1/4	108-5/16	21-11/16
175, 200, 225	N/A	130, 180	36-9/16	20-29/32	2	23	2-59/64	35-3/4	71-5/32	98-61/64	PDH/SDH/PEH 124-1/64 SHH N/A	N/A
250, 300	30D, 60D, 90D, 120D	260	36-9/16	28-13/16	10-5/16	23	2-59/64	52	71-5/32	98-61/64		29-3/8
350, 400A	40E, 80E, 120E	350	36-9/16	38-15/32	8-41/64	23	2-59/64	60	71-5/32	98-61/64		29-3/8

Dimensions - mm (±3)

PDH or SDH	PEH	SHH	Dimensions (See FIGURES 1 and 2) - apply to all Models unless specified																					
			A	A1	A2	A3	A4	A5	A6	A7	A8	B	C	C1	C2	C3	C4	C5	C6	C7	C8	D-SDH/HH	E	E1	E2
75, 100	10A, 20A, 40A	N/A	1438	2227	2144	2781	3016	2933	3578	3722	4359	829	1391	2180	2097	2734	2969	2886	3523	3675	4312	102	1514	2303	2220
125, 150	15B, 30B, 60B	N/A	1438	2227	2144	2781	3016	2933	3578	3722	4359	1083	1391	2180	2097	2734	2969	2886	3523	3675	4312	102	1514	2303	2220
175, 200, 225	N/A	130, 180	PDH/SDH/PEH 1837 SHH 2091	PDH/SDH/PEH 2626 SHH 2880	PDH/SDH/PEH 2543 SHH 2797	PDH/SDH/PEH 3180 SHH N/A	PDH/SDH/PEH 3415 SHH N/A	PDH/SDH/PEH 3332 SHH 3586	PDH/SDH/PEH 3969 SHH N/A	PDH/SDH/PEH 4121 SHH N/A	PDH/SDH/PEH 4758 SHH N/A	829	PDH/SDH/PEH 1789 SHH 2043	PDH/SDH/PEH 2578 SHH 2832	PDH/SDH/PEH 2495 SHH 2749	PDH/SDH/PEH 313 SHH N/A1	PDH/SDH/PEH 3367 SHH N/A	PDH/SDH/PEH 3284 SHH 3538	PDH/SDH/PEH 3921 SHH N/A	PDH/SDH/PEH 4073 SHH N/A	PDH/SDH/PEH 4711 SHH N/A	127	PDH/SDH/PEH 1913 SHH 2167	PDH/SDH/PEH 2702 SHH 2956	PDH/SDH/PEH 2619 SHH 2873
250, 300	30D, 60D, 90D, 120D	260										1241										127			
350, 400A	40E, 80E, 120E	350										1445										127			

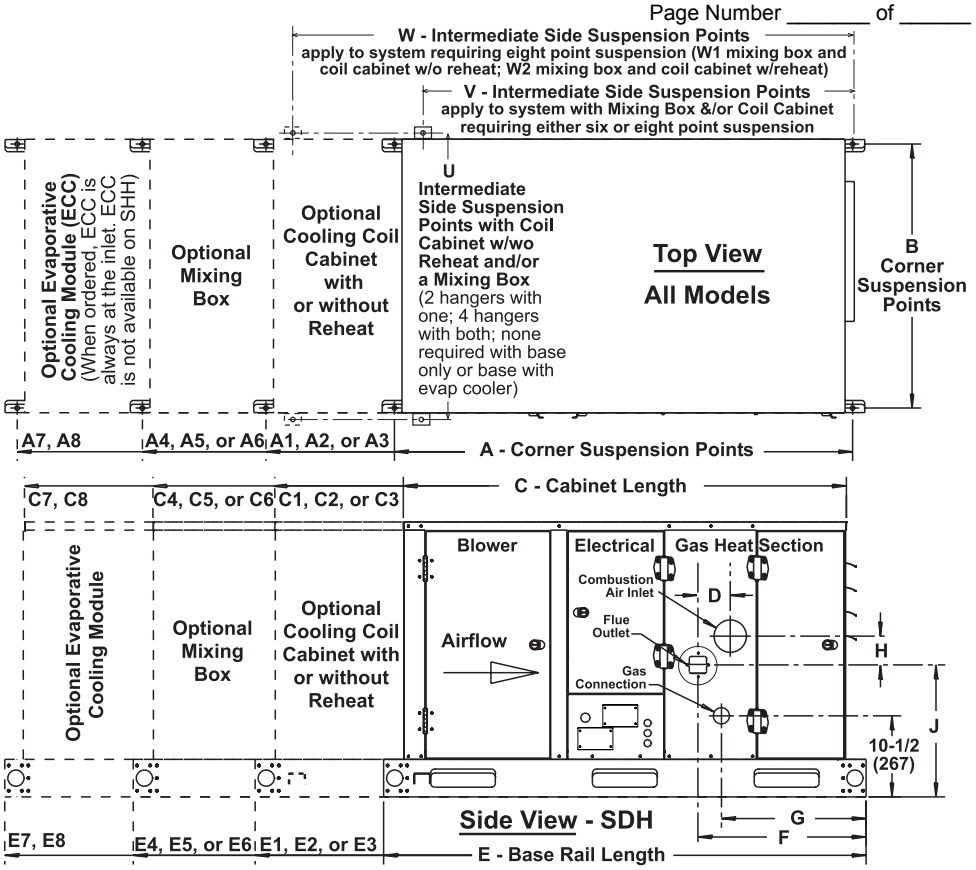
PDH or SDH	PEH	SHH	Dimensions (See FIGURES 1 and 2) - apply to all Models unless specified																				
			E3	E4	E5	E6	E7	E8	F	G	H-SDH/HH	J-	K	M	N	P	Q	R	S	T	U	V	W1	W2	X-PEH
75, 100	10A, 20A, 40A	N/A	2856	3092	3009	3646	3798	4435	528	454	92	427	857	627	876	695	450	128	351	72	908	1409	2115	2751	551
125, 150	15B, 30B, 60B	N/A	2856	3092	3009	3646	3798	4435	528	454	92	427	1111	881	876	695	704	128	351	72	1162	1409	2115	2751	551
175, 200, 225	N/A	130, 180	PDH/SDH/PEH 3256 SHH N/A	PDH/SDH/PEH 3491 SHH N/A	PDH/SDH/PEH 3009 SHH 3263	PDH/SDH/PEH 4128 SHH N/A	PDH/SDH/PEH 4197 SHH N/A	PDH/SDH/PEH 4834 SHH N/A	PDH/SDH 814 SHH 1091 PEH N/A	PDH/SDH 629 SHH 905 PEH N/A	102	437	857	627	1111	928	531	51	584	74	908	1807	2513	PDH/SDH/PEH 3150 SHH N/A	N/A
250, 300	30D, 60D, 90D, 120D	260									102	437	1270	1040	1111	928	732	262	584	74	1321	1807	2513		746
350, 400A	40E, 80E, 120E	350									102	437	1473	1243	1111	928	977	219	584	74	1524	1807	2513		746

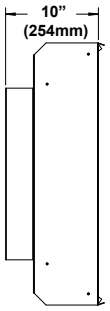
REZNOR®

DIMENSIONS (cont'd)

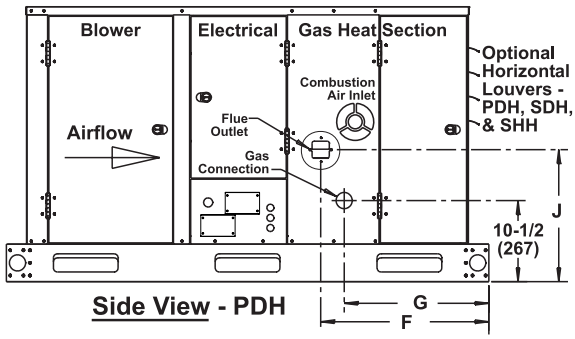
Models PDH, PEH, SDH, and SHH

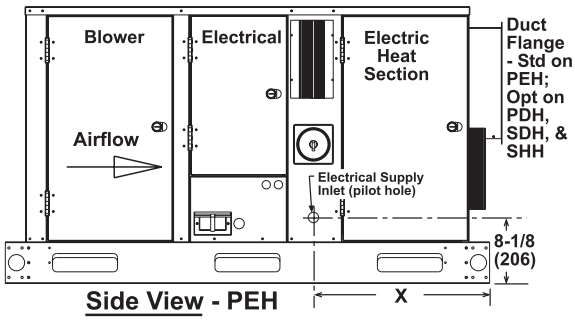
Dimensions apply to all models listed above unless otherwise noted.

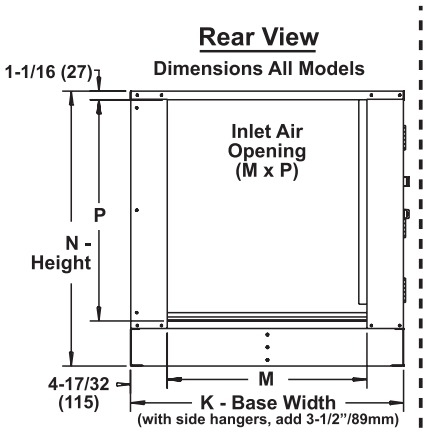




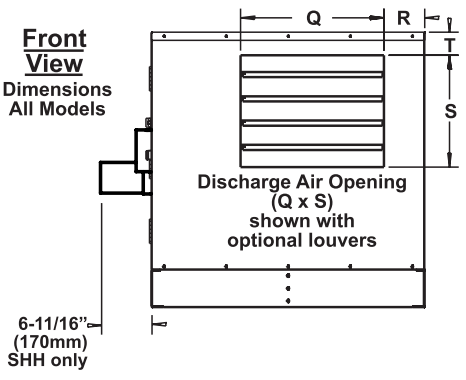
Side View of Optional On/Off Damper with Duct Flange (no mixing box) [adds 10 inches (254mm) to all "C" dimensions]

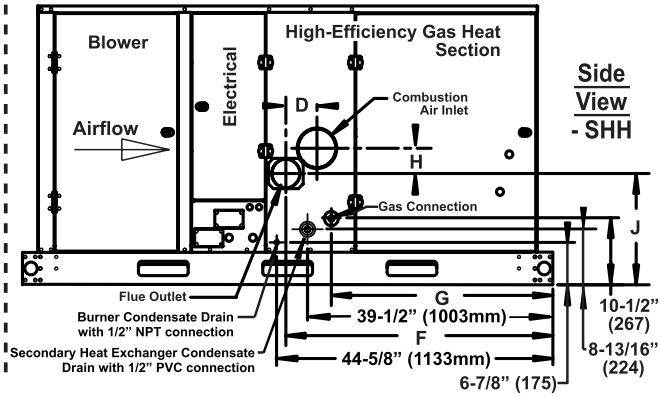






Additional detail dimensions for Mixing Box, Evaporative Cooling, Cooling Coil Modules, and discharge air accessories can be found over the next few pages.





REZNOR®

DIMENSIONS (cont'd)

DIMENSIONS

Models RDH and REH

Dimensions apply to both models listed above unless otherwise noted.

NOTES:

Factory-assembled Configurations Depending on Option Selection and KEY to Dimensions A and C.

Dimensions **A** and **C** change with selection of factory-installed modules; see Key above.

- Dimension A - Length of Base Rails
- Dimension C - Inside Curb Cap Length

Field-installed Outside Air Hood	Field-installed hood does not add length to the base of the system. The hood does add 42" (1066mm) to length of cabinet of Sizes 75-150 and 40-1/2" (1029mm) to length of cabinet of Sizes 175-400A. The evaporative cooling module, the mixing box, the coil cabinet, and the downturn plenum are mounted on the system base. (The evaporative cooling module is outside the curb cap.)			
Evaporative Cooling Module	**Mixing Box with Variety of Inlet Air Options**	**Cooling Coil Module with a DX Coil with or without a Reheat Pump or a Chilled Water Coil**	**Blower → Gas-Fired or Electric Heat Section**	with Horizontal Discharge
Evap Clr	**Mix Box**	**Coil Mod w/o Reheat** **Coil Mod w/Reheat**	**BASIC**	KEY to Dimension Codes A and C in **FIGURE 2** & **TABLE 3.**
			Basic	**A, C**
		Mix Box	**Basic**	**A1, C1**
		Evap Clr	**Basic**	**A1, C**
		Coil Mod w/o Reheat	**Basic**	**A1, C1**
		Coil Mod w/Reheat	**Basic**	**A2, C2**
	Evap Clr	**Mix Box**	**Basic**	**A3, C1**
	Mix Box	**Coil Mod w/o Reheat**	**Basic**	**A3, C3**
	Mix Box	**Coil Mod w/Reheat**	**Basic**	**A4 C4**
	Evap Clr	**Coil Mod w/o Reheat**	**Basic**	**A3, C1**
	Evap Clr	**Coil Mod w/Reheat**	**Basic**	**A4, C2**
Evap Clr	**Mix Box**	**Coil Mod w/o Reheat**	**Basic**	**A5, C3**
Evap Clr	**Mix Box**	**Coil Mod w/Reheat**	**Basic**	**A6, C4**

Dimensions (inches ±1/8)

RDH	REH	A	A1	A2	A3	A4	A5	A6	B	C	C1	C2	C3	C4
75/100	10A/20A/40A	60-13/16	88-9/16	113-9/16	116-5/16	141-5/16	144-1/16	169-1/16	33-3/4	53-9/16	81-5/16	106-5/16	109-1/16	134-1/16
125/150	15B/30B/60B	60-13/16	88-9/16	113-9/16	116-5/16	141-5/16	144-1/16	169-1/16	43-3/4	53-9/16	81-5/16	106-5/16	109-1/16	134-1/16
175/200/225	N/A	76-1/2	104-1/4	129-1/4	132	157	159-3/4	184-3/4	33-3/4	69-1/4	97	122	124-3/4	149-3/4
250/300	30D/60D/90D/120D	76-1/2	104-1/4	129-1/4	132	157	159-3/4	184-3/4	50	69-1/4	97	122	124-3/4	149-3/4
350/400A	40E/80E/120E	76-1/2	104-1/4	129-1/4	132	157	159-3/4	184-3/4	58	69-1/4	97	122	124-3/4	149-3/4

RDH	REH	D	E	F	G	H	J	K	L	M	N	P-RDH	R-RDH	X-REH
75/100	10A/20A/40A	31-9/16	30-7/16	22-7/8	18-3/8	27	24	17-9/16	13-9/16	13-13/16	25-15/16	28-9/16	19	21-11/16
125/150	15B/30B/60B	41-9/16	30-7/16	26-1/2	18-3/8	37	24	27-9/16	13-9/16	18-13/16	25-15/16	28-9/16	19	21-11/16
175/200/225	N/A	31-9/16	39-11/16	22-7/8	18-3/8	27	33-1/4	20-3/4	22-13/16	12-5/16	30-9/16	37-13/16	26-3/4	N/A
250/300	30D/60D/90D/120D	47-13/16	39-11/16	34-3/4	18-3/8	43-1/4	33-1/4	28-5/8	22-13/16	24-7/16	30-9/16	37-13/16	26-3/4	29-3/8
350/400A	40E/80E/120E	55-13/16	39-11/16	45-13/16	18-3/8	51-1/4	33-1/4	38-5/16	22-13/16	27-13/16	30-9/16	37-13/16	26-3/4	29-3/8

Dimensions (mm ±3)

RDH	REH	A	A1	A2	A3	A4	A5	A6	B	C	C1	C2	C3	C4
75/100	10A/20A/40A	1545	2250	2885	2954	3589	3659	4294	857	1361	2065	2700	2770	3405
125/150	15B/30B/60B	1545	2250	2885	2954	3589	3659	4294	1111	1361	2065	2700	2770	3405
175/200/225	N/A	1943	2648	3283	3353	3988	4058	4693	857	1759	2464	3099	3169	3804
250/300	30D/60D/90D/120D	1943	2648	3283	3353	3988	4058	4693	1270	1759	2464	3099	3169	3804
350/400A	40E/80E/120E	1943	2648	3283	3353	3988	4058	4693	1473	1759	2464	3099	3169	3804

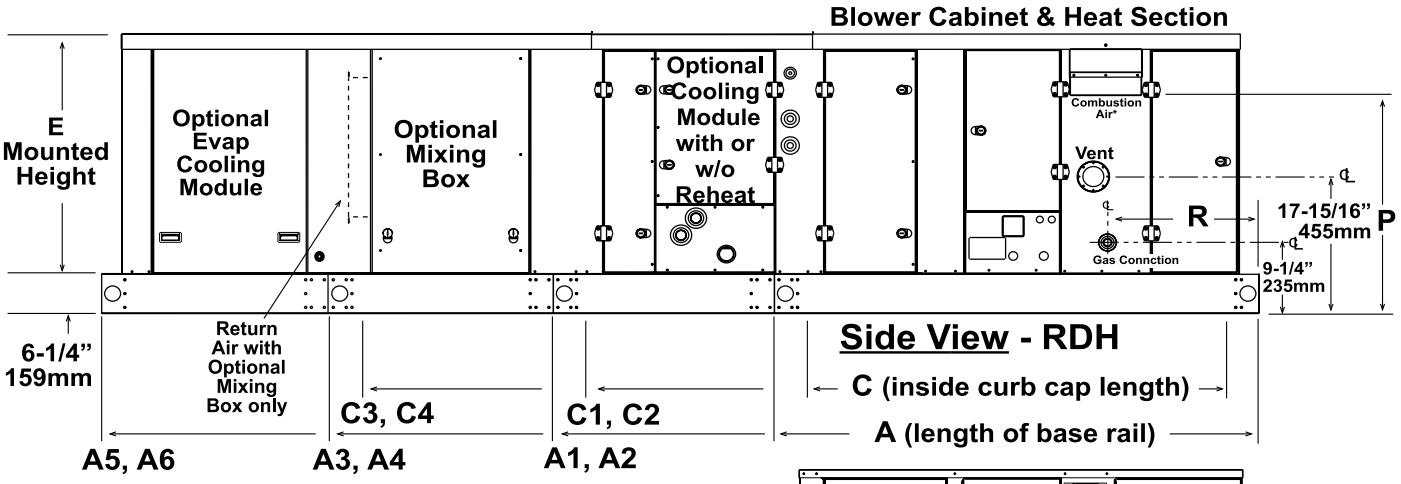
RDH	REH	D	E	F	G	H	J	K	L	M	N	P-RDH	R-RDH	X-REH
75/100	10A/20A/40A	802	773	581	467	686	610	446	344	351	659	725	483	551
125/150	15B/30B/60B	1056	773	673	467	940	610	700	344	478	659	725	483	551
175/200/225	N/A	802	1008	581	467	686	845	527	580	313	777	960	679	N/A
250/300	30D/60D/90D/120D	1214	1008	883	467	1099	845	728	580	621	777	960	679	746
350/400A	40E/80E/120E	1418	1008	1164	467	1302	845	973	580	706	777	960	679	746

REZNOR®

DIMENSIONS (cont'd)

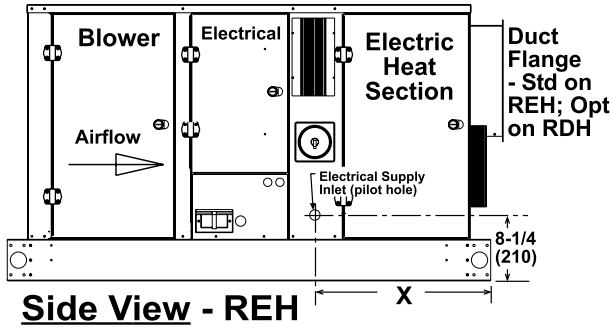
Models RDH and REH

Dimensions apply to both models listed above unless otherwise noted.

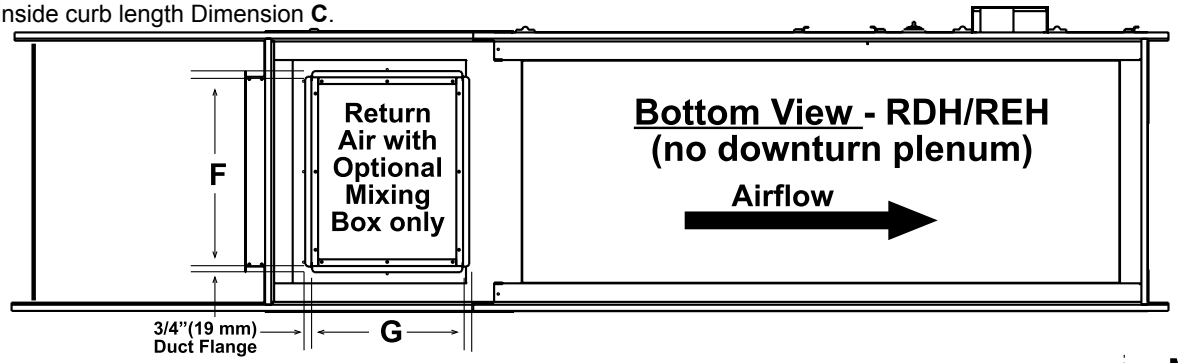


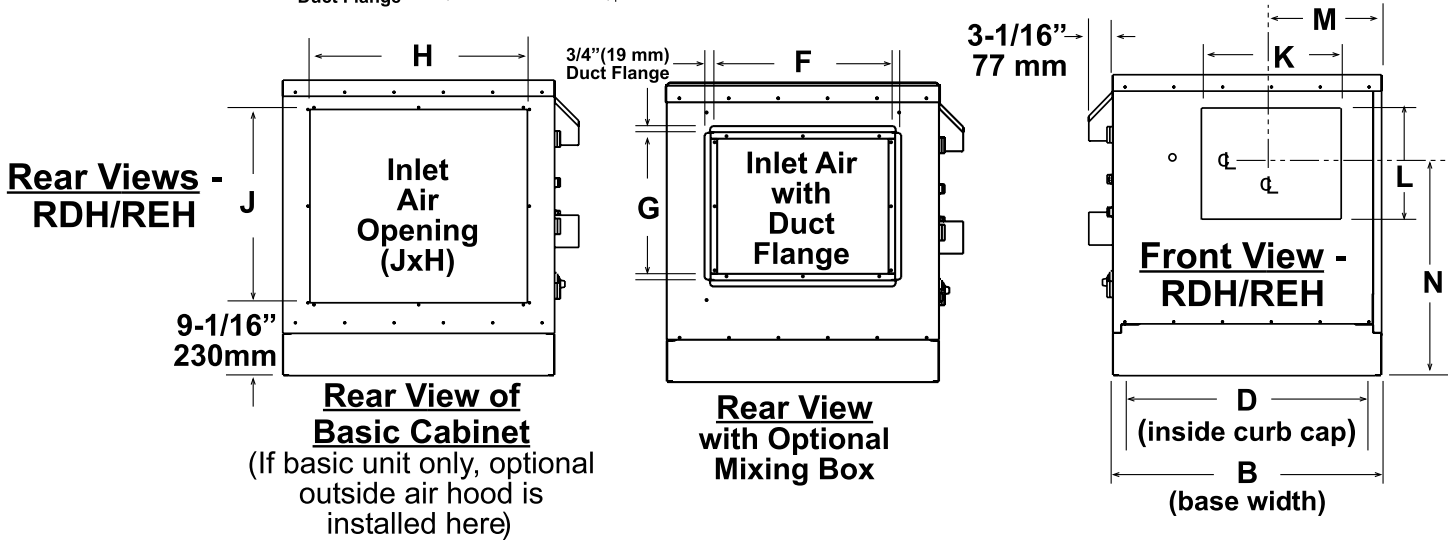
Side View of Optional Modules

RDH/REH
Side View Dimensions A, C, and E are the same for both models.



NOTE: An optional evaporative cooling module (Option ECC) is always first and extends beyond the roof curb. It has no affect on inside curb length Dimension **C**.





REZNOR®

DIMENSIONS

Models RDH and REH with Downturn Plenum

Dimensions apply to both models listed above unless otherwise noted.

NOTES:

Factory-assembled Configurations Depending on Option Selection and KEY to Dimensions A, C and K.

Dimensions **A, C** and **K** change with selection of factory-installed modules; see Key above.

- Dimension A - Length of Base Rails
- Dimension C - Inside Curb Cap Length
- Dimension K - Distance between Center Line of Return Air Opening and Supply Air Opening.

Option AS2 Field-installed Outside Air Hood	Field-installed hood does not add length to the base of the system. The hood does add 42" (1066mm) to length of cabinet of Sizes 75-150 and 40-1/2" (1029mm) to length of cabinet of Sizes 175-400A. The evaporative cooling module, the mixing box, the coil cabinet, and the downturn plenum are mounted on the system base. (The evaporative cooling module is outside the curb cap.)

Evaporative Cooling Module	Mixing Box with Variety of Inlet Air Options	Cooling Coil Module with a DX Coil with or without a Reheat Pump or a Chilled Water Coil	Blower Gas-Fired or Electric Heat Section	Vertical Discharge with Downturn Plenum
Evap Clr	Mix Box	Coil Mod w/o Reheat Coil Mod w/Reheat	BASIC	KEY to Dimension Codes A, C, & K in **FIGURE 4** and **TABLE 4.**
			Basic	A, C
		Mix Box	Basic	A1, C1, K
		Evap Clr	Basic	A1, C
		Coil Mod w/o Rehea	Basic	A1, C1
		Coil Mod w/Reheat	Basic	A2, C2
	Evap Clr	Mix Box	Basic	A3, C1, K
	Mix Box	Coil Mod w/o Rehea	Basic	A3, C3, K1
	Mix Box	Coil Mod w/Reheat	Basic	A4, C4, K2
	Evap Clr	Coil Mod w/o Rehea	Basic	A3, C1
	Evap Clr	Coil Mod w/Reheat	Basic	A4, C2
Evap Clr	Mix Box	Coil Mod w/o Rehea	Basic	A5, C3, K1
Evap Clr	Mix Box	Coil Mod w/Reheat	Basic	A6, C4, K2

Dimensions (inches and mm) of Model RDH/REH with a Downturn Plenum

Dimensions (inches ±1/8)

RDH	REH	A	A1	A2	A3	A4	A5	A6	B	C	C1	C2	C3	C4
75/100	10A/20A/40A	88-9/16	116-5/16	141-5/16	144-1/16	169-1/16	172-1/8	197-1/8	33-3/4	81-5/16	109-1/16	134-1/16	136-13/16	161-13/16
125/150	15B/30B/60B	88-9/16	116-5/16	141-5/16	144-1/16	169-1/16	172-1/8	197-1/8	43-3/4	81-5/16	109-1/16	134-1/16	136-13/16	161-13/16
175/200/225	N/A	104-1/4	132	157	159-3/4	184-3/4	187-1/2	212-1/2	33-3/4	97	124-3/4	149-3/4	152-1/2	177-1/2
250/300	30D/60D/90D/120D	104-1/4	132	157	159-3/4	184-3/4	187-1/2	212-1/2	50	97	124-3/4	149-3/4	152-1/2	177-1/2
350/400A	40E/80E/120E	104-1/4	132	157	159-3/4	184-3/4	187-1/2	212-1/2	58	97	124-3/4	149-3/4	152-1/2	177-1/2

RDH	REH	D	E	F	G	H	J	K	K1	K2	P-RDH	R-RDH	X-REH	
75/100	10A/20A/40A	31-9/16	30-7/16	22-7/8	18-3/8	27	24	81-5/8	109-3/8	134-3/8	28-9/16	46-3/4	49-7/16	
125/150	15B/30B/60B	41-9/16	30-7/16	26-1/2	18-3/8	37	24	81-5/8	109-3/8	134-3/8	28-9/16	46-3/4	49-7/16	
175/200/225	N/A	31-9/16	39-11/16	22-7/8	18-3/8	27	33-1/4	97-3/8	125-1/8	150-1/8	37-13/16	54-1/2	N/A	
250/300	30D/60D/90D/120D	47-13/16	39-11/16	34-3/4	18-3/8	43-1/4	33-1/4	97-3/8	125-1/8	150-1/8	37-13/16	54-1/2	57-1/8	
350/400A	40E/80E/120E	55-13/16	39-11/16	45-13/16	18-3/8	51-1/4	33-1/4	97-3/8	125-1/8	150-1/8	37-13/16	54-1/2	57-1/8	

Dimensions (mm ±3)

RDH	REH	A	A1	A2	A3	A4	A5	A6	B	C	C1	C2	C3	C4
75/100	10A/20A/40A	2250	2954	3589	3659	4294	4372	5007	857	2065	2770	3405	3475	4110
125/150	15B/30B/60B	2250	2954	3589	3659	494	4372	5007	1111	2065	2770	3405	3475	4110
175/200/225	N/A	2648	3353	3988	4058	4693	4763	5398	857	2464	3169	3804	3874	4509
250/300	30D/60D/90D/120D	2648	3353	3988	4058	4693	4763	5398	1270	2464	3169	3804	3874	4509
350/400A	40E/80E/120E	2648	3353	3988	4058	4693	4763	5398	1473	2464	3169	3804	3874	4509

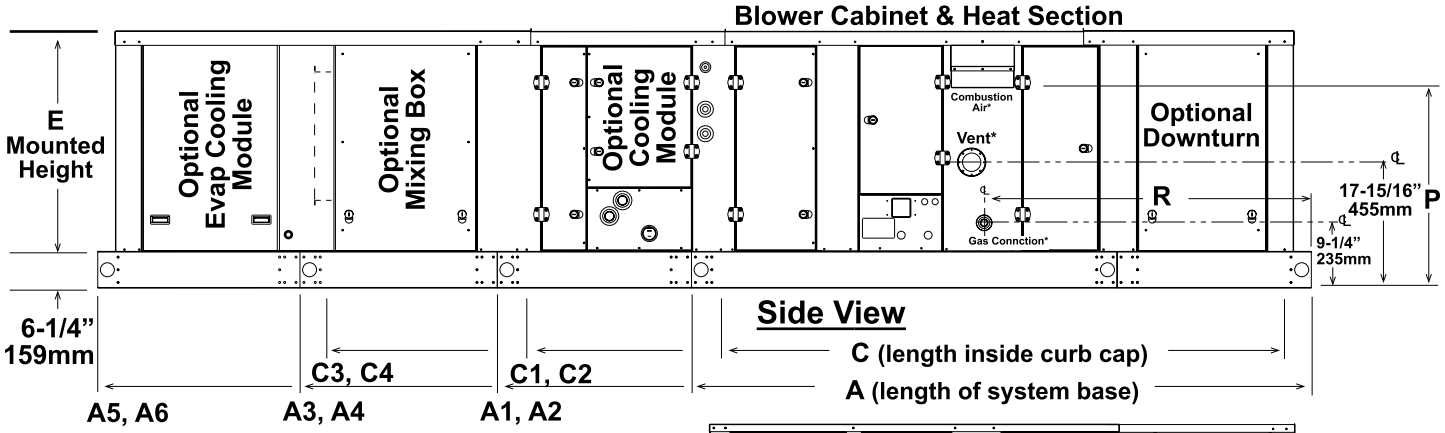
RDH	REH	D	E	F	G	H	J	K	K1	K2	P-RDH	R-RDH	X-REH	
75/100	10A/20A/40A	802	773	581	467	686	610	2073	2778	3413	725	1187	1255	
125/150	15B/30B/60B	1056	773	673	467	940	610	2073	2778	3413	725	1187	1255	
175/200/225	N/A	802	1008	581	467	686	845	2473	3178	3813	960	1384	N/A	
250/300	30D/60D/90D/120D	1214	1008	883	467	1099	845	2473	3178	3813	960	1384	1451	
350/400A	40E/80E/120E	1418	1008	1164	467	1302	845	2473	3178	3813	960	1384	1451	

REZNOR®

DIMENSIONS (cont'd)

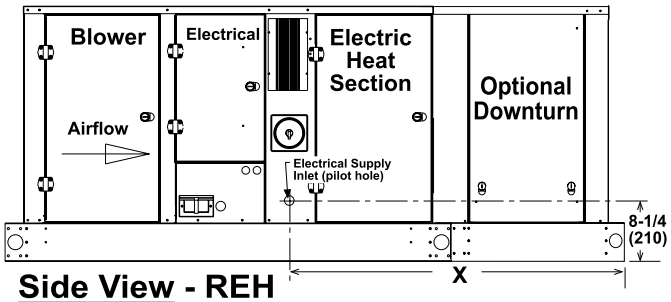
Models RDH and REH with Downturn Plenum

Dimensions apply to both models listed above unless otherwise noted.

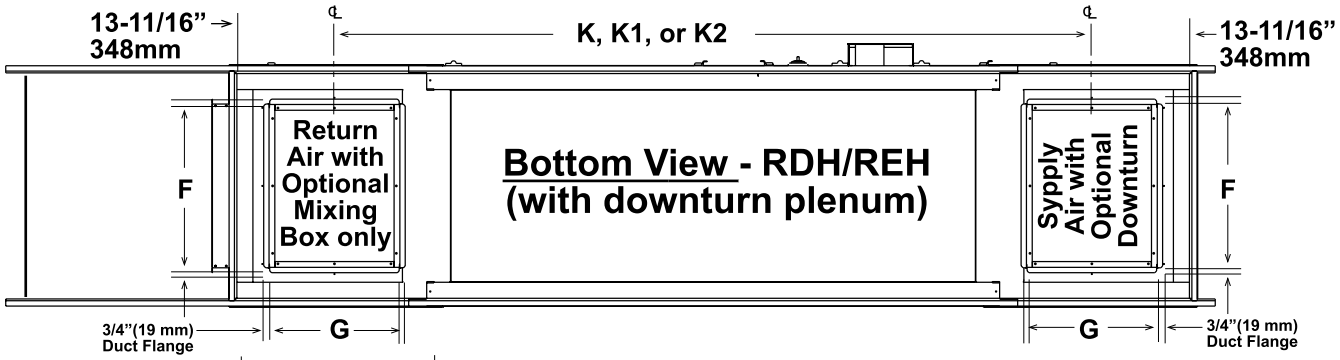


Side View of Optional Modules

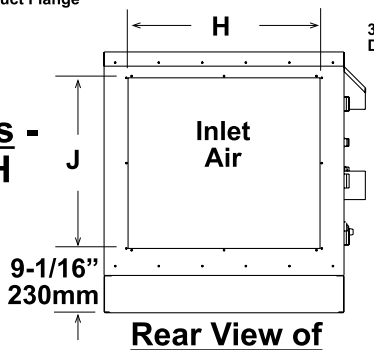
RDH/REH
Side View and Bottom View Dimensions A,C, E, and K are the same for both models.



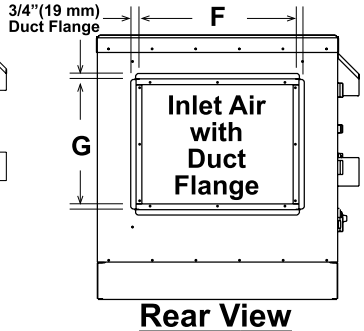
Side View - REH



Rear Views - RDH/REH

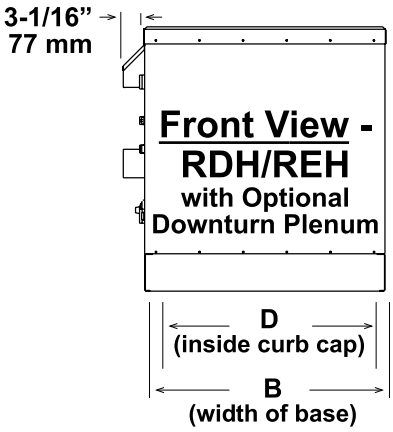


Rear View of Basic Cabinet
(If basic unit only optional outside air hood is installed here.)



Rear View with Optional Mixing Box

Rear View with Optional Evap Cooler.



NOTE: An optional evaporative cooling module is always first and extends beyond the roof curb. It has no affect on inside curb length Dimension **C or K**.

REZNOR®

COMBUSTIBLE AND SERVICE CLEARANCES

COMBUSTIBLE MATERIAL CLEARANCES - All Sizes																
Models PDH, PEH, RDH, REH and SDH	Control Side		Opposite Control Side		Front		Rear		Top		Bottom		Vent Connector at Unit		Vent Pipe	
	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)
	20	(508)	6	(152)	48	(1,219)	18	(457)	6	(152)	0	0	18	(457)	6	(152)
Model SHH	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)	in.	(mm)
	20	(508)	6	(152)	48	(1,219)	18	(457)	6	(152)	0	0	6	(152)	0	0

RECOMMENDED SERVICE CLEARANCES																
PEH, REH Cabinet Size Size	PDH, RDH, SDH Size	SHH Size	Control Side						Opposite Control Side						Top	
			Control Side		with Mixing Box		with Cooling Coil		Opposite Control Side		with Mixing Box		with Cooling Coil			
			in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
A	75/100	N/A	20	(508)	30	(762)	42	(1,067)	6	(152)	25	(635)	25	(635)	18	(457)
B	125/150	N/A	20	(508)	34	(864)	52	(1,321)	6	(152)	25	(635)	25	(635)	18	(457)
N/A	175/200/225	130/180	20	(508)	30	(762)	42	(1,067)	6	(152)	25	(635)	25	(635)	24	(610)
D	250/300	260	20	(508)	42	(1,067)	58	(1,473)	6	(152)	25	(635)	25	(635)	24	(610)
E	350/400A	350	20	(508)	52	(1,321)	66	(1,676)	6	(152)	25	(635)	25	(635)	24	(610)

[A] Optional Weather Hood and Downturn Plenum available on Model RDH or REH only (not available on PDH, PEH, SDH or SHH).
[B] Optional Inlet and Discharge Air Dampers and Nozzles available on Models PDH and SDH only. Inlet Air Dampers can attach to the Blower Section or Cooling Coil Section (not available on RDH, REH or SHH).
[C] Models PDH and SDH only.

Reznor Separated Combustion Systems

Applies to Separated Combustion Models SDH and SHH

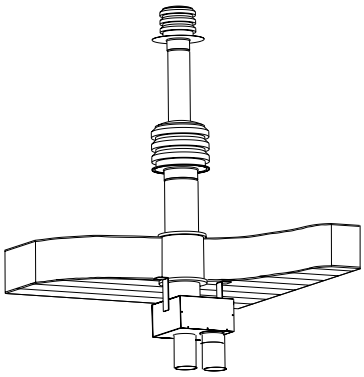
For years the manufacturer of Reznor heating equipment has pioneered in separated combustion system technology, eliminating “open flame” combustion problems. This has resulted in a complete line of Reznor products using the separated combustion principle-

- air for combustion is mechanically induced from outside the building, preventing dirt, lint, dust or other contaminants in the indoor atmosphere from entering the burner, pilot or combustion zone of the furnace,
- the air flow is metered to provide optimum and efficient combustion that is unaffected by negative building pressure or wind,
- after combustion, the air is exhausted back to the outdoor atmosphere.

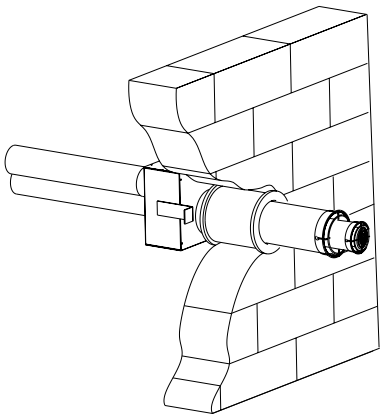
Reznor separated combustion products provide all of the benefits while requiring only one building penetration.

Approved vent terminals are illustrated. No other venting arrangements are approved or certified for use with Model SDH or SHH heaters. Either the horizontal vent/combustion air terminal kit (Option CC6) or the vertical vent/combustion air terminal kit (Option CC2) is required. Refer to Venting Installation Manual Form I-SDH-V or I-SHH-V. Contact your Reznor Representative at 800-695-1901 for more detailed information.

Separated Combustion Unit - *Typical installation of one vertical vent terminal and concentric adapter. If vertical vent (Option CC2) is selected, a vertical vent terminal/combustion-air inlet assembly is provided for EACH furnace section.*



Separated Combustion Unit - *Showing typical installation of a single horizontal vent terminal and concentric adapter. When Option CC6 is ordered, one horizontal vent terminal/combustion air inlet assembly is provided for* **EACH** *furnace section.*



REZNOR®
INLET DAMPERS

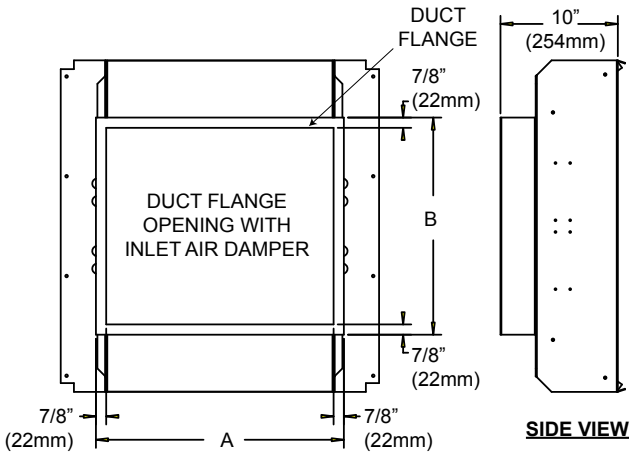
GENERAL AIR OPENING AND DAMPER ARRANGEMENTS

Applies to Models PDH, PEH, RDH, REH, SDH and SHH unless otherwise noted.

CABINET MOUNTED OPT. ON/OFF AR8 DAMPER (Applies to Models PDH, PEH and SDH only)

Option AR8 is factory-mounted to the air inlet side of the cabinet. It can be mounted on the blower cabinet or the cooling coil module. See table below for dimensions and weights to be added to base unit. (not available with Evaporative Cooling Module. See Mixing Box Option MXB1 for additional air inlet arrangements.)

PEH Cabinet Size	PDH/SDH SIZE	A		B		Weight	
		inches	(mm)	inches	(mm)	lbs.	(kg)
A	75, 100	19 3/8	(492)	16 3/4	(425)	34	(15)
B	125, 150	24 7/8	(632)	16 3/4	(425)	45	(20)
N/A	175, 200, 225	21 1/4	(540)	25 3/4	(654)	56	(25)
D	250, 300	34 1/4	(870)	18 1/4	(464)	73	(33)
E	350, 400A	38 5/8	(981)	21 1/4	(540)	85	(39)



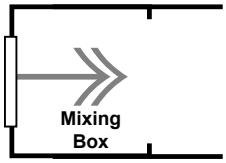
MIXING BOX (Option MXB1)

Mixing Box Inlet Air Configurations - Option GD

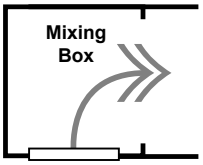
Side Views - Arrows represent inlet airflow.

Flanged Openings (with or without dampers)

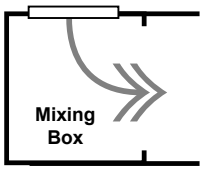
GD1



GD2

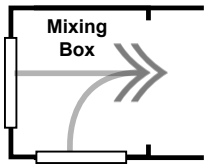


GD3[A]

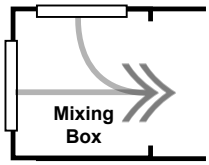


Flanged Return Air Opening and 30% Outside Air Opeing

GD4

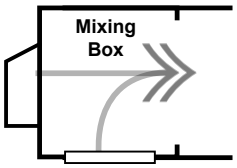


GD5[A]



NOTE: Options GE21 and GE22 will fully close O/A Damper when the gas heat is engaged for Model SHH.

GD6[B]



MIXING BOX DAMPER ARRANGEMENTS - Option GE

Applies to Model(s)	Option [D]	Dampers/Motor	Damper Dial in Unit	Remote Damper Dial	Heat Mode Mixed Air Control	Warmup Control	Building Pressure Control	Enthalpy Control (Cooling Operation)	Use With Damper Configuration
RDH/REH	GE1	Manual 30% O/A							GD6
RDH/REH	GE2	2 Position 30% O/A							GD6
All (Ex. SHH)	GE3	2 Position 100% O/A							GD1, GD2, GD3 [C]
All (Ex. SHH)	GE4	3 Position 100% O/A	X						GD1, GD2, GD3 [C]
All (Ex. SHH)	GE5	Manual O/A & R/A							GD4, GD5 [C]
All (Ex. SHH)	GE6	2 Position O/A & R/A							GD4, GD5 [C]
All (Ex. SHH)	GE7	2 Position O/A & R/A ASHRAE Cycle I				X			GD4, GD5 [C]
All (Ex. SHH)	GE8	3 Position O/A & R/A	X						GD4, GD5 [C]
All (Ex. SHH)	GE10	Modulating O/A & R/A		X					GD4, GD5 [C]
All (Ex. SHH)	GE11	Modulating O/A & R/A			X				GD4, GD5 [C]
All (Ex. SHH)	GE12	Modulating O/A & R/A		X	X				GD4, GD5 [C]
All (Ex. SHH)	GE13	Modulating O/A & R/A ASHRAE Cycle III			X	X			GD4, GD5 [C]
All (Ex. SHH)	GE14	Modulating O/A & R/A ASHRAE Cycle II	X		X	X			GD4, GD5 [C]
All (Ex. SHH)	GE15	Null Position O/A & R/A					X		GD4, GD5 [C]
All (Ex. SHH)	GE16	DDC Modulating O/A & R/A							GD4, GD5 [C]
All	GE21	2 Position O/A & R/A with Enthalpy Controller						X	GD4, GD5 [C]
All	GE22	Modulating O/A & R/A with Dual Reference Enthalpy Controller						X	GD4, GD5 [C]

[A] PDH, PEH & SDH only.
[B] RDH & REH only.
[C] Control is field supplied. See next page for complete description.
[D] Options GE1 through GE16 are not available on Model SHH.

Inlet Air Options (Option GE) by Mixing Box Configuration (Option GD)

Configuration (see previous page)	Control Option [D]	Option GE Description/Application	Damper(s)	Damper Actuator	Damper Actuator Control	Control Option
GD6[A]	GE1	100% Return Air Inlet, 30% Outside Air Inlet with Hood (see Outside Air Hood section) and Manual Outside Air Damper - Supplies constant 30% or less outside air to recirculating heating system. Outside air hood is shipped separately for field installation.				GE1
GD6[A]	GE2	100% Return Air Inlet, 30% Outside Air Inlet with Hood (see Outside Air Hood section) and Motorized Outside Air Damper - Supplies 30% outside air to a recirculating heating system at specific times, as controlled by a time clock or switch. On shutdown, the outside air damper closes. Outside air hood is shipped separately for field installation.	2 Position (30%) Outside Air Dampers			GE2
GD1, GD2, or GD3[B]	GE3	100% outside air inlet with 2-position (open/closed) motorized damper. Provides tempered makeup air intermittently, usually in unison with a building exhauster. Outside air damper opens when unit is on; closes when unit is off. (Comparable to Reznor Option AR8)	2 Position (open/closed) Outside Air Damper	2-Position Damper Motor	Unit controller	GE3
	GE4	100% outside air inlet with 3-position (full/partial/closed) motorized damper and potentiometer. Provides for low and high air flow damper positions to control the supply of makeup air, usually wired in unison with a 2-speed exhauster. Motor and drive selections must be based on high airflow. On shutdown, the outside air damper closes. (Comparable to Reznor Option AR9)	3 Position (2 open settings/closed) Outside Air Damper	Modulating Damper Motor with preset stops	Damper position dial (potentiometer) in the Unit	GE4
GD4 or GD5[B]	STD	Outside and return air openings without dampers. Designed for installation of field-supplied damper system.	Field Supplied			
	GE5	Outside air and return air inlets with dampers and a manual quadrant. Provides manually fixed position for constant mix of return air and makeup air. (Comparable to Reznor Option AR11)	Outside Air and Return Air Dampers	Manual, Locking Quadrant	Manual	GE5
	GE6	Outside air and return air inlets with dampers and a 2-position damper motor. Provides 100% return air or 100% outside air as controlled by the unit controller programming. On shutdown, the outside air damper closes. (Comparable to Reznor Option AR17)	2 Position Outside Air and Return Air Dampers (either100% outside or 100% return air)	2-Position Damper Motor	Unit controller	GE6
	GE7	Outside air and return air inlets with dampers and a 2-position damper motor and warmup (or cooldown) control (ASHRAE Cycle I). Provides 100% return air or 100% outside air as controlled by the return air temperature. On shutdown, the outside air damper closes. (Comparable to Reznor Option AR14)	2 Position Outside Air and Return Air Dampers (100% return air or 100% outside air after 100% return air warmup or cooldown)		Unit controller plus warmup (or cooldown) setting (return air temperature) to delay opening of outside air damper	GE7
	GE8	Outside air and return air inlets with dampers with a 3-position (2 mixed settings/outside air dampers closed) motorized damper and potentiometer. Provides for low and high air flow damper position to control the supply of makeup air, usually wired in unison with a 2-speed exhauster. Motor and drive selections must be based on high airflow. On shutdown, the outside air damper closes.	3 Position (2 mixed settings/outside air closed) Outside Air and Return Air Dampers	Modulating Damper Motor with preset stops	Damper position dial (potentiometer) in the Unit	GE8
	GE10	Outside air and return air inlets with dampers with a modulating damper motor and potentiometer. Provides for mixture of outside and return air as controlled by a manually set remote potentiometer. On shutdown, the outside air damper closes. (Comparable to Reznor Option AR18)	Modulating Outside Air and Return Air Dampers (provide a mixture of outside and return air as determined by control)	Modulating Damper Motor	Remote damper position dial (potentiometer shipped separately)	GE10
	GE11	Outside air and return air inlets with dampers with a modulating damper motor and discharge air mixed air controller. Provides for mixture of outside and return air as controlled by discharge air temperature setting. On shutdown, the outside air damper closes. (Comparable to Reznor Option AR12)			Heat or cool mode mixed air controller (discharge air temperature)	GE11
	GE12	Outside air and return air inlets with dampers with a modulating damper motor, a discharge air mixed air controller, and a potentiometer. Provides for mixture of outside and return air as controlled by discharge air temperature setting with a minimum amount of outside air as determined by the poteniometer setting. On shutdown, the outside air damper closes. (Comparable to Reznor Option AR13)			Unit-Mounted damper position dial (potentiometer) and heat or cool mode mixed air controller (discharge air temperature)	GE12
	GE13	Outside air and return air inlets with dampers and a modulating damper motor and warmup (or cooldown) control (ASHRAE Cycle III). Provides 100% return air on warmup (or cooldown) and mixture of outside and return air as controlled by mixed inlet air temperature setting. On shutdown, the outside air damper closes. (Comparable to Reznor Option AR16)			Warmup (or cooldown) setting (return air temperature) to delay opening of outside air damper plus heat or cool mode mixed air controller (outside air temperature)	GE13
	GE14	Outside air and return air inlets with dampers and a modulating damper motor, potentiometer, and warmup (or cooldown) control (ASHRAE Cycle II). Provides 100% return air on warmup and mixture of outside and return air as controlled by mixed inlet air temperature setting with a minimum amount of outside air after warmup (or cooldown) as determined by the poteniometer setting. On shutdown, the outside air damper closes. (Comparable to Reznor Option AR15)			Warmup (or cooldown) setting (return air temperature) to delay opening of outside air damper plus heat or cool mode mixed air controller (outside air temperature) plus override from unit-mounted damper position dial (poteniometer)	GE14
	GE15	Outside air and return air inlets with dampers and a modulating damper motor and a pressure null switch. Provides a mixture of return and outside air as automatically controlled by building air pressure. On shutdown, the outside air damper closes. (Comparable to Reznor Option AR23)			Null switch (building pressure)	GE15
	GE16	Outside air and return air inlets with dampers and a modulating damper motor with an interface to accept 0-10 volt or 4-20mA signal from a field-supplied DDC system. Provides a mixture of return and outside air as controlled by the building's automated environmental control system.		Modulating Damper Motor with DDC Control	DDC control from field-supplied automated building control	GE16
	GE21	Modulating Damper with Enthalpy Controller	Modulating Outside Air and Return Air Dampers (provide a mixture of outside and return air as determined by control)	Modulating Damper	Unit Controller & Economizer Logic Module	GE21
	GE22	Modulating Damper with Dual Reference Enthalpy Controller		Modulating Damper Motor	Unit Controller & Economizer Logic Module	GE22

[A] Option GD6 for Model RDH & REH Only
[B] Option GD3 and GD5 for Models PDH, PEH and SDH only
[D] Options GE1 through GE16 are not available on Model SHH

NOTE: Options GE21 and GE22 will fully close O/A Damper when the gas heat is engaged for Model SHH.

REZNOR®

MIXING BOX MODULE (cont'd)

GENERAL AIR OPENING AND DAMPER ARRANGEMENTS (cont'd)

Description

The mixing box module is factory installed upstream of the blower cabinet and allows for a variety of outside air and return air configurations with and without dampers. Dampers are available with a selection of actuators and controllers.

On indoor Model PDH, PEH, SDH, and SHH the mixing box is available in single wall construction or double wall construction with either standard insulation (R value 3.8) or high density insulation (R value 4.4).

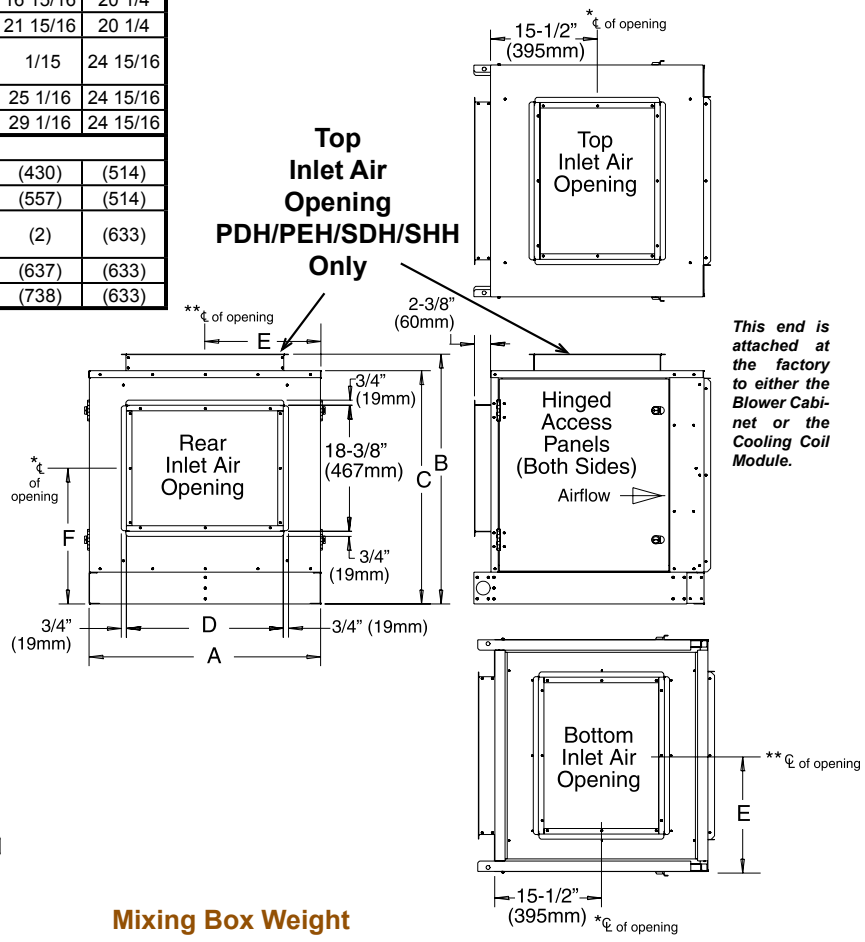
On outdoor Model RDH or REH the mixing box is available in double wall only with either standard insulation (R value 3.8) or high density insulation (R value 4.4).

Mixing Box Dimensions

PEH/ REH Cabinet Size	PDH/RDH/ SDH Size	SHH Size	Mixing Box Dimension Codes					
			A	B	C	D	E**	F*
	Dimensions (inches)							
A	75, 100	N/A	3 3/4	36 15/16	34 1/2	22 7/8	16 15/16	20 1/4
B	125, 150	N/A	43 3/4	36 15/16	34 1/2	26 1/2	21 15/16	20 1/4
N/A	175, 200, 225	130C. 180C	33 3/4	46 3/16	43 3/4	22 7/8	1/15	24 15/16
D	250, 300	260D	50	46 3/16	43 3/4	34 3/4	25 1/16	24 15/16
E	350, 400A	350E	59	46 3/16	43 3/4	45 13/16	29 1/16	24 15/16
	Dimensions (mm)							
A	75, 100	N/A	(95)	(938)	(876)	(581)	(430)	(514)
B	125, 150	N/A	(1,111)	(938)	(876)	(673)	(557)	(514)
N/A	175, 200, 225	130C. 180C	(857)	(1,173)	(1,111)	(581)	(2)	(633)
D	250, 300	260D	(1,270)	(1,173)	(1,111)	(883)	(637)	(633)
E	350, 400A	350E	(1,499)	(1,173)	(1,111)	(1,164)	(738)	(633)

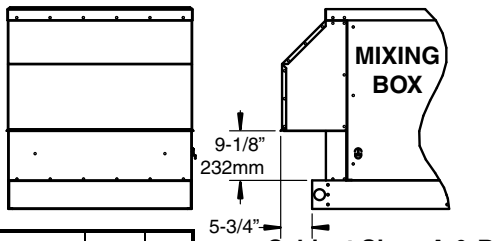
- Duct flange connections are the same size for all mixing box configurations - D x 18-3/8" (467mm) opening with 3/4" (19mm) flanges.
- Top and bottom openings are symmetrical.

** Centerline of opening is at 1/2 of 18-3/8" = 9-3/16" (1/2 of 467mm = 233.5)*
*** Centerline of opening is at 1/2 of D. Dimension E applies to location of opening for all configurations.*



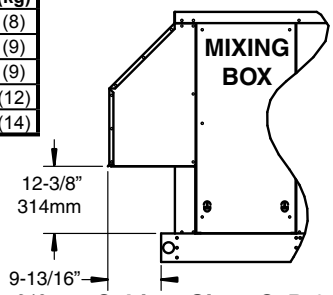
Model RDH or REH Only - 30% O/A Opening w/Small Intake Hood in Back, 100% R/A Opening in Bottom - Option GD6

Must be ordered with mixing box Option MXB1



Cabinet Sizes A & B

REH Cabinet Size	RDH Size	Lbs.	(kg)
A	75, 100	18	(8)
B	125, 150	20	(9)
N/A	175, 200, 225	20	(9)
D	250, 300	26	(12)
E	350, 400A	31	(14)



Cabinet Sizes C, D & E

Mixing Box Weight

- Add weight below to unit weight in Technical Data Tables

Model	Net Weight - lbs. PEH or REH Cabinet Size	A	B	N/A	D	E
	Model SHH	-	-	130C, 180C	260D	350E
	PDH, SDH or RDH Size	75, 100	125, 150	175, 200, 225	250, 300	350, 400A
PDH, PEH, SDH or SHH Only	One Opening (Single Wall)	115	127	130	154	169
	Two Openings (Single Wall)	119	132	134	159	174
PDH, PEH, RDH, REH, SDH or SHH	One Damper (Double Wall)	146	166	166	201	219
	Two Dampers (Double Wall)	146	166	166	199	216

Model	Net Weight (kg)					
PDH, PEH, SDH or SHH Only	One Opening (Single Wall)	(52)	(58)	(59)	(70)	(77)
	Two Openings (Single Wall)	(54)	(60)	(61)	(72)	(79)
PDH, PEH, RDH, REH, SDH or SHH	One Damper (Double Wall)	(66)	(75)	(75)	(91)	(99)
	Two Dampers (Double Wall)	(66)	(75)	(75)	(90)	(98)

REZNOR®

MODULE for EVAPORATIVE COOLER

DESCRIPTION

Evaporative cooling provides cooling based on two principles: (1) water in direct contact with a moving airstream will evaporate if the droplets have long enough exposure; and (2) that evaporation will lower the temperature of the airstream. This evaporative cooler uses rigid cellulose media to retain the moisture providing the airstream with time for evaporation. Using evaporative cooling when cooling needs are limited will help to reduce the cost of traditional cooling, or may also be used as a precooler in conjunction with a traditional cooling coil to reduce the tonnage required for a specific application.

Evaporative cooling module is factory assembled to all PreevA Models and located upstream from the blower cabinet. Any additional optional modules (i.e. cooling coil cabinet or mixing box cabinet) will be positioned between the evaporative cooling module and the blower cabinet.

The thermally protected water pump features a heavy duty, fan cooled motor with moisture proof windings along with a corrosion resistant one piece motor shaft. The snap-out base allows for simple access to the impeller for easy cleaning. The pump is wired to allow for manual or automatic thermostat switching to call for cooling. Standard equipment includes an electrically activated, pump-protector, float switch to ensure that an adequate amount of water is in the reservoir prior to the pump being energized. An automatic fill float and constant bleed line maintains the proper reservoir level while allowing the appropriate bleed-off to prevent accumulation of scale deposits including calcium and magnesium salts. All water-carrying components are constructed of plastics to prohibit corrosion and extend the life of the cooler components.

The optional AquaSaver™ water metering system is designed to decrease water usage by automatically regulating water flow by time and temperature and to decrease maintenance requirements by eliminating the pump and float switches.

STANDARD FEATURES

- Easily accessible, self-cleaning, high-efficiency evaporative media of 6” rigid cellulose media
- Thermally protected water pump
- Electrical motor-protection float switch with stainless steel ball, float and arm
- PVC float valve and bleed line
- 115 volt supply voltage
- Terminal block wiring
- Overflow and drain connections in cabinet bottom
- 300 Series Grade stainless steel water reservoir
- Pre-coat white gloss finish, 60 gloss minimum and RAL 9001, meets ASTM B117 specification for salt spray for 1,000 hours
- Screened inlet (unless metal pre-filters are ordered)

OPTIONAL FEATURES

- Stainless steel cabinet
- 12” rigid cellulose media, 6” or 12” rigid glass fiber media fire-rated to UL900, Class II
- 208 or 230 volt power supply capability
- Automatic fill and drain kit
- Microprocessor based AquaSaver water metering system
- Water hammer arrestor
- 1” or 2“ metal pre-filters

Evaporative Cooler Technical Data

Electric Cabinet Size		A		B		N/A			D		E	
PDH, RDH or SDH Size		75	100	125	150	175	200	225	250	300	350	400A
Cooling Effectiveness	6” Media	68%										
	12” Media	90%										
Maximum Evaporative Cooling Airflow	CFM	1,406	1,875	2,344	2,813	3,281	3,750	3,950	4,688	5,625	6,563	7,000
	M^3/hr	(2,389)	(3,186)	(3,982)	(4,779)	(5,574)	(6,371)	(6,711)	(7,965)	(9,557)	(11,150)	(11,893)
Maximum Face Velocity	FPM	500										
	mm/s	(2,540)										
Pump HP	Pump & Float Water Supply	1/50 HP										
Amps @115/1		0.92										
Media Face (Total)	Dimensions	29.25 x 31.5		29.25 x 41.5		36 x 31.5			36 x 47.75		36 x 55.75	
	Sq Ft	6.4		8.5		7.9			12		14	

Evaporative cooling module is factory assembled to all PREEVA indoor and outdoor models and located upstream from the blower.

NOTE: Not applicable for Model SHH.

REZNOR®

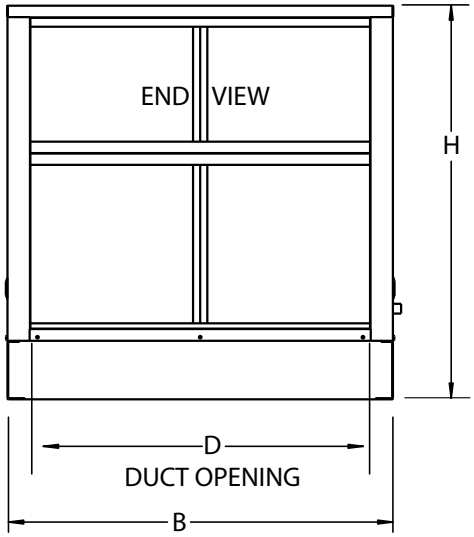
Evaporative Cooler Options

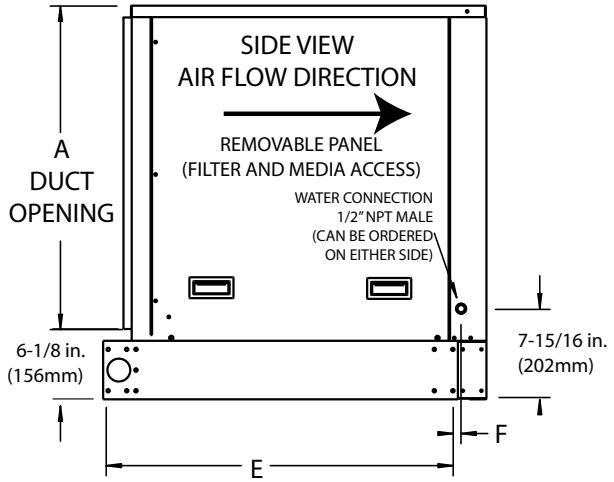
NOTE: Evaporative Cooling is not available with PREEVA^{dH} (dehumidification) coil module

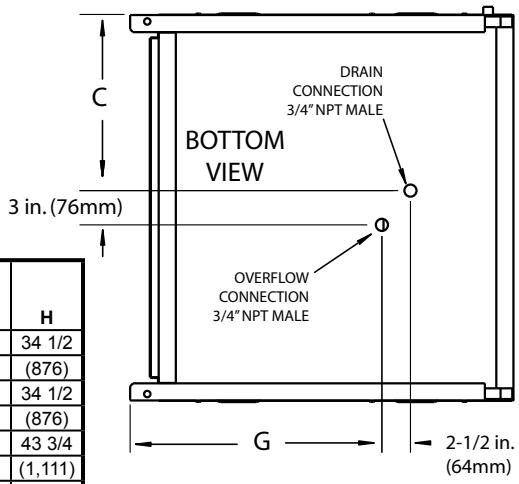
Water Supply	Option ECD2 - Pump and float system
	Option ECD1 - AquaSaver® timed water distribution
Media	6" Rigid Cellulose (Option ASC3)
	12" Rigid Cellulose (Option ASC4)
	6" UL Cellulose (Option ASC5)
	12" UL Cellulose (Option ASC8)
Pre-Filter	1" or 2" Permanent Aluminum Air Filter (Option PF4 or PF5)
Fill & Drain Kits	Provides "automatic" draining and filling of reservoir (pump system)
Freeze Protection Kit	Temperature based automatic draining of water supply line based on ambient temperature
	Temperature based automatic draining of piping in evaporative cooler. (Used with AquaSaver System)
Water Hammer Arrestor	Reduces water noise (Option ECB1) (Used with AquaSaver System)

DIMENSIONS

Listed by Model and Size (± 1/8" 3mm)







PEH Cabinet Size	PDH, SDH Size		A	B	C	D	E	F	G	H
A	75, 100	in	27 1/4	33 3/4	15 3/8	29 13/16	31 1/16	5/16	22 1/16	34 1/2
		(mm)	(693)	(857)	(391)	(757)	(789)	(7)	(560)	(876)
B	125, 150	in	27 1/4	43 3/4	20 3/8	39 13/16	31 1/16	5/16	22 1/16	34 1/2
		(mm)	(693)	(1,111)	(518)	(1,011)	(789)	(7)	(560)	(876)
N/A	175, 200, 225	in	36 1/2	33 3/4	15 3/8	29 13/16	31 1/16	5/16	22 1/16	43 3/4
		(mm)	(928)	(857)	(391)	(757)	(789)	(7)	(560)	(1,111)
D	250, 300	in	36 1/2	50	23 1/2	46 1/16	31 1/16	5/16	22 1/16	43 3/4
		(mm)	(928)	(1,270)	(597)	(1,170)	(789)	(7)	(560)	(1,111)
E	350, 400A	in	36 1/2	58	27 1/2	54 1/16	31 1/16	5/16	22 1/16	43 3/4
		(mm)	(928)	(1,473)	(699)	(1,373)	(789)	(7)	(560)	(1,111)

REH Cabinet Size	RDH Size		B	C	E	F	G	H
A	75, 100	in	33 3/4	15 3/8	27 3/4	1 3/8	20 7/8	36 3/4
		(mm)	(857)	(391)	(705)	(34)	(531)	(933)
B	125, 150	in	43 3/4	20 3/8	27 3/4	1 3/8	20 7/8	36 3/4
		(mm)	(1,111)	(518)	(705)	(34)	(531)	(933)
N/A	175, 200, 225	in	33 3/4	15 3/8	27 3/4	1 3/8	20 7/8	46
		(mm)	(857)	(391)	(705)	(34)	(531)	(1,168)
D	250, 300	in	50	23 1/2	27 3/4	1 3/8	20 7/8	46
		(mm)	(1,270)	(597)	(705)	(34)	(531)	(1,168)
E	350, 400A	in	58	27 1/2	27 3/4	1 3/8	20 7/8	46
		(mm)	(1,473)	(699)	(705)	(34)	(531)	(1,168)

Evaporative Cooler Module Weight

- Add weight below to unit weight in Technical Data Tables

PEH, REH Cabinet Size	PDH, RDH or SDH Size	6 INCH MEDIA				12 INCH MEDIA			
		"DRY" WEIGHT		TOTAL "WET" WEIGHT		"DRY" WEIGHT		TOTAL "WET" WEIGHT	
		lbs.	(kg)	lbs.	(kg)	lbs.	(kg)	lbs.	(kg)
A	75,100	108	(49)	250	(113)	120	(54)	262	(119)
B	125, 150	124	(56)	246	(112)	141	(64)	263	(119)
N/A	175, 200, 225	124	(56)	206	(93)	136	(62)	218	(99)
D	250, 300	153	(69)	260	(118)	172	(78)	279	(127)
E	350, 400	167	(76)	249	(113)	190	(86)	272	(123)

Note: "Wet" weight applies to unit with 3" of water in reservoir.

REZNOR®

RPM/BHP CHARTS (ranges)

Applies to PREEVA Series Models PDH, RDH and SDH

Unit Size	CFM	Temp Rise	Total Static Pressure											
			0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00
75	**563**	100 °F	490/0.06	689/0.11	845/0.18	965/0.25	1090/0.33	1165/0.40	1251/0.50	1351/0.59	1408/0.70	1469/0.76	N/A	N/A
	1406	40 °F	603/0.24	753/0.35	879/0.45	992/0.58	1096/0.70	1188/0.84	1278/0.98	1361/1.10	1454/1.24	1534/1.41	1592/1.54	1687/1.69
100	**750**	100 °F	500/0.08	682/0.14	833/0.21	978/0.30	1098/0.38	1184/0.47	1286/0.56	1364/0.68	1452/0.76	1500/0.89	1607/1.00	1667/1.12
	1875	40 °F	694/0.45	827/0.58	945/0.72	1051/0.85	1148/1.00	1236/1.15	1324/1.30	1389/1.48	1480/1.65	1541/1.79	1607/1.95	1679/2.13
125	**938**	100 °F	561/0.09	811/0.19	966/0.28	1113/0.38	1239/0.48	1340/0.58	1459/0.68	1563/0.80	1642/0.91	1728/1.05	1824/1.15	N/A
	2344	40 °F	850/0.61	965/0.74	1072/0.89	1180/1.07	1282/1.25	1379/1.44	1492/1.63	1609/1.86	1709/2.14	1803/2.36	1908/2.61	1977/2.89
150	**1125**	100 °F	592/0.12	804/0.22	993/0.34	1151/0.46	1282/0.57	1387/0.67	1511/0.80	1607/0.91	1688/1.04	1776/1.16	1841/1.29	N/A
	2812	40 °F	981/0.95	1068/1.10	1161/1.25	1265/1.45	1368/1.67	1454/1.87	1543/2.07	1622/2.26	1699/2.47	1782/2.71	1875/2.99	N/A
175	**1313**	100 °F	492/0.14	646/0.24	788/0.36	927/0.49	1037/0.62	1125/0.76	1212/0.92	1291/1.07	1382/1.20	1432/1.36	1515/1.55	1576/1.72
	3281	40 °F	813/1.06	907/1.28	989/1.49	1070/1.68	1145/1.88	1215/2.11	1278/2.35	1339/2.57	1406/2.83	1458/3.13	1526/3.35	1588/3.66
200	**1500**	100 °F	513/0.18	656/0.28	784/0.41	909/0.55	1026/0.72	1121/0.86	1212/1.03	1304/1.20	1379/1.38	1446/1.54	1519/1.74	1579/1.91
	3750	40 °F	904/1.52	987/1.77	1064/2.01	1136/2.22	1205/2.48	1266/2.73	1333/2.97	1389/3.20	1449/3.45	1508/3.73	1563/3.97	1613/4.23
225	**1688**	100 °F	541/0.22	675/0.34	791/0.46	904/0.61	1020/0.77	1125/0.96	1225/1.15	1310/1.32	1394/1.54	1461/1.71	1535/1.91	N/A
	4219	40 °F	994/2.09	1073/2.37	1144/2.62	1213/2.89	1278/3.17	1337/3.43	1396/3.73	1455/4.00	1513/4.23	1563/4.56	1616/4.84	N/A
250	**1875**	100 °F	492/0.24	647/0.38	773/0.53	882/0.71	980/0.89	1071/1.08	1154/1.25	1230/1.47	1304/1.65	1376/1.81	1442/2.01	N/A
	4688	40 °F	882/2.23	945/2.50	1014/2.80	1084/3.11	1150/3.42	1214/3.73	1280/4.02	1344/4.35	1410/4.71	N/A	N/A	N/A
300	**2250**	100 °F	529/0.35	666/0.52	789/0.68	889/0.86	983/1.05	1071/1.25	1154/1.49	1236/1.71	1308/1.94	1380/2.21	1442/2.43	N/A
	5625	40 °F	1036/3.61	1086/3.96	1139/4.27	1194/4.61	1253/4.99	N/A	N/A	N/A	N/A	N/A	N/A	N/A
350	**2625**	100 °F	529/0.29	698/0.50	840/0.75	955/0.99	1055/1.24	1154/1.49	1243/1.76	1321/2.01	1400/2.29	1469/2.58	1544/2.89	N/A
	6563	40 °F	885/2.17	981/2.58	1069/2.98	1151/3.43	1230/3.91	1303/4.38	1374/4.88	N/A	N/A	N/A	N/A	N/A
400A	**3000**	100 °F	552/0.37	706/0.60	848/0.87	964/1.15	1067/1.44	1159/1.73	1244/2.01	1326/2.30	1404/2.62	1481/2.93	1548/3.24	1611/3.60
	7500	40 °F	984/3.13	1073/3.62	1154/4.11	1230/4.58	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Unit Size	**CFM**	**Temp Rise**	**0.25**	**0.50**	**0.75**	**1.00**	**1.25**	**1.50**	**1.75**	**2.00**	**2.25**	**2.50**	**2.75**	**3.00**
			Total Static Pressure											

**** Total adjusted external static pressure should include external static pressure and accessory/option static pressures. "Base unit" internal resistance has been included in these tables. BHP includes drive losses.***

NOTE: To see complete RPM/BHP tables for Models PDH, PEH, RDH, REH, SDH, or SHH go to www.RezSpec.com and search for "splitsystemblowertables" (no spaces).

REZNOR®

RPM/BHP CHARTS (ranges)

Applies to PREEVA Series Models PEH and REH

Cabinet Size	kW	TEMP RISE (°F) @ KW	CFM	RPM/BHP @ ESP											
				0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00
A	10.0	75.0	420	NA	681/0.09	822/0.15	931/0.21	1038/0.27	1130/0.34	1194/0.42	1292/0.50	1347/0.57	1407/0.65	1472/0.74	1544/0.86
		19.7	1,600	640/0.26	772/0.36	892/0.47	1008/0.59	1121/0.73	1231/0.87	1326/1.01	1420/1.17	1500/1.34	1579/1.50	1655/1.65	1727/1.82
	20.0	79.0	800	504/0.07	710/0.15	863/0.23	992/0.31	1091/0.40	1188/0.50	1277/0.59	1348/0.68	1429/0.79	1500/0.92	1558/0.99	1622/1.13
		19.7	3,200	1053/1.61	1132/1.78	1209/1.96	1280/2.12	1352/2.29	1416/2.49	1481/2.71	1543/2.91	NA	NA	NA	NA
	40.0	79.0	1,600	640/0.26	772/0.36	892/0.47	1008/0.59	1121/0.73	1231/0.87	1326/1.01	1420/1.17	1500/1.34	1579/1.50	1655/1.65	1727/1.82
		33.3	3,800	1223/2.60	1290/2.80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Cabinet Size	kW	TEMP RISE (°F) @ KW	CFM	RPM/BHP @ ESP											
				0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00
B	15	75.0	630	534/0.05	756/0.12	926/0.19	1074/0.28	1196/0.37	1313/0.48	1410/0.58	1500/0.70	1602/0.80	1688/0.91	1783/1.05	1853/1.22
		19.7	2400	736/0.48	867/0.60	994/0.75	1111/0.90	1216/1.06	1319/1.22	1417/1.40	1513/1.59	1600/1.79	1690/1.96	1773/2.18	1856/2.37
	30	79.0	1200	556/0.11	756/0.20	928/0.30	1071/0.40	1200/0.53	1314/0.65	1417/0.77	1513/0.91	1607/1.05	1698/1.19	1782/1.36	1856/1.52
		20.2	4700	1268/2.95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	60	79.0	2400	736/0.48	867/0.60	994/0.75	1111/0.90	1216/1.06	1319/1.22	1417/1.40	1513/1.59	1600/1.79	1690/1.96	1773/2.18	1856/2.37
		40.3	4700	1268/2.95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Cabinet Size	kW	TEMP RISE (°F) @ KW	CFM	RPM/BHP @ ESP											
				0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00
D	30	75.0	1260	429/0.10	600/0.18	737/0.27	851/0.36	947/0.46	1041/0.56	1125/0.69	1200/0.80	1260/0.93	1326/1.05	1400/1.19	1448/1.35
		19.7	4800	762/1.65	818/1.90	891/2.15	974/2.41	1055/2.66	1129/2.93	1197/3.20	1263/3.48	1326/3.75	1383/4.01	1441/4.30	1500/4.62
	60	79.0	2400	487/0.30	632/0.43	750/0.58	854/0.72	952/0.88	1039/1.02	1121/1.19	1200/1.34	1277/1.52	1341/1.68	1412/1.84	1472/2.02
		27.1	7000	1061/4.69	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	90	79.0	3600	604/0.78	703/0.97	811/1.16	905/1.36	989/1.57	1068/1.78	1143/1.99	1212/2.21	1281/2.43	1348/2.66	1412/2.89	1469/3.14
		40.6	7000	1061/4.69	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	120	75.8	5000	789/1.84	843/2.10	907/2.35	988/2.61	1066/2.88	1139/3.17	1208/3.43	1272/3.72	1333/4.01	1393/4.32	1449/4.58	1506/4.91
		54.2	7000	1061/4.69	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Cabinet Size	kW	TEMP RISE (°F) @ KW	CFM	RPM/BHP @ ESP											
				0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00
E	40	75.0	1685	454/0.14	633/0.28	771/0.45	884/0.63	980/0.82	1066/1.01	1149/1.22	1221/1.44	1290/1.67	1352/1.91	1412/2.16	1469/2.41
		19.7	6400	818/2.13	903/2.44	986/2.77	1063/3.10	1136/3.46	1206/3.85	1273/4.23	1337/4.65	NA	NA	NA	NA
	80	79.0	3200	532/0.39	669/0.58	792/0.81	906/1.06	1008/1.33	1101/1.59	1185/1.88	1266/2.18	1337/2.48	1408/2.80	1472/3.10	1538/3.46
		30.1	8400	1026/4.53	1092/4.93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	120	79.0	4800	664/1.00	772/1.25	871/1.52	960/1.80	1045/2.11	1129/2.47	1208/2.82	1286/3.18	1358/3.58	1429/3.95	1494/4.37	1558/4.78
		45.1	8400	1026/4.53	1092/4.93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

RPM/BHP CHARTS (ranges)

Applies to PREEVA Series Model SHH

Unit Size	Temp Rise	CFM	RPM/BHP @ ESP										
			0.00	0.20	0.40	0.60	0.80	1.00	1.20	1.40	1.60	1.80	2.00
130	**75.0**	**1488**	510/0.17	612/0.24	711/0.32	803/0.39	890/0.45	971/0.50	1049/0.56	1128/0.60	1195/0.60	1262/0.60	1330/0.60
	30.0	**3720**	1275/2.60	1317/2.77	1355/2.92	1396/3.09	1435/3.27	1477/3.46	1517/3.67	1560/3.86	1600/4.07	1637/4.29	1677/4.49
180	**75.0**	**1966**	633/0.34	706/0.42	781/0.51	855/0.61	931/0.72	1004/0.82	1069/0.91	1139/1.00	1205/1.08	1267/1.16	1330/1.25
	31.0	**4757**	1532/4.76	1562/4.97	NA	NA	NA	NA	NA	NA	NA	NA	NA
260	**75.0**	**2920**	784/0.77	849/0.89	911/1.01	972/1.14	1031/1.26	1091/1.40	1149/1.56	1207/1.74	1263/1.92	1316/2.10	1369/2.26
	40.3	**5440**	1460/4.97	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
350	**75.0**	**3876**	787/1.01	863/1.21	936/1.42	1008/1.64	1077/1.87	1144/2.12	1209/2.38	1272/2.64	1333/2.92	1394/3.21	1450/3.50
	44.0	**6607**	1341/5.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTE: To see complete RPM/BHP tables for Models PDH, PEH, RDH, REH, SDH, or SHH go to www.RezSpec.com and search for "splitsystemblowertables" (no spaces).

REZNOR®

PRESSURE DROP TABLES

Applies to PREEVA Series Models PDH, RDH, SDH, and Model SHH

PDH, RDH, SDH Unit Size	SHH Unit Size	CFM	Disp. Filters [A]		Perm. Alum. Filters [A]		Pleated Disposable Filters [A]			Mixing Box	Inlet Damper	O/A Intake Hood	Evaporative Cooler Media [C]		Downturn Plenum	Disch Damper	1" Pre-Filter (Opt. PF4)	2" Pre-Filter (Opt. PF5)	Reheat Pump Coils		Add Coil PD from Coil Data Sheet[B]	External PD (Duct System)	Total Adjusted Pressure Drop
			1"	2"	1"	2"	1"	2"	4"				6"	12"					Wet	Dry			
75, 100 (Cab A)	-	569	0.02	0.04	0.01	0.01	0.11	0.04	0.01	0.00	0.01	0.03	0.01	0.01	0.00	0.01	0.01	0.01	■	0.03	■		
		1000	0.04	0.06	0.01	0.02	0.15	0.07	0.03	0.01	0.01	0.03	0.02	0.04	0.01	0.01	0.01	0.02	0.08	0.07			
		1500	0.06	0.09	0.02	0.04	0.21	0.11	0.06	0.02	0.01	0.06	0.04	0.07	0.02	0.01	0.02	0.04	0.15	0.13			
		1898	0.09	0.13	0.03	0.06	0.26	0.15	0.10	0.03	0.02	0.08	0.05	0.11	0.03	0.02	0.03	0.06	0.23	0.19			
125, 150 (Cab B)	-	949	0.03	0.05	0.01	0.01	0.13	0.05	0.02	0.01	0.01	0.03	0.01	0.02	0.01	0.01	0.01	0.01	■	0.03	■		
		1250	0.04	0.06	0.01	0.02	0.15	0.07	0.03	0.01	0.01	0.03	0.02	0.03	0.01	0.01	0.01	0.02	0.06	0.05			
		1500	0.05	0.07	0.01	0.03	0.18	0.08	0.04	0.02	0.01	0.04	0.02	0.04	0.02	0.01	0.01	0.03	0.08	0.07			
		2000	0.07	0.10	0.02	0.05	0.23	0.12	0.07	0.02	0.02	0.06	0.04	0.07	0.02	0.02	0.02	0.05	0.14	0.12			
		2500	0.10	0.14	0.03	0.07	0.28	0.17	0.11	0.03	0.03	0.09	0.05	0.11	0.03	0.03	0.03	0.07	0.20	0.17			
		2847	■	■	0.04	0.08	0.32	0.20	0.14	0.03	0.04	0.11	0.07	0.13	0.03	0.04	0.04	0.08	0.25	0.21			
175, 200, 225 (Cab C)	130C, 180C	1329	0.03	0.06	0.01	0.02	0.14	0.06	0.03	0.02	0.01	0.05	0.02	0.04	0.02	0.01	0.01	0.02	0.12	0.10			
		1650	0.04	0.07	0.01	0.03	0.17	0.08	0.04	0.02	0.02	0.07	0.03	0.06	0.02	0.02	0.01	0.03	0.18	0.15			
		2000	0.06	0.09	0.02	0.04	0.20	0.10	0.05	0.03	0.02	0.09	0.04	0.08	0.03	0.02	0.02	0.04	0.24	0.21			
		2500	0.08	0.12	0.03	0.05	0.24	0.14	0.08	0.03	0.04	0.15	0.06	0.12	0.03	0.04	0.03	0.05	0.36	0.31			
		3000	0.11	0.15	0.04	0.07	0.29	0.18	0.11	0.04	0.06	0.22	0.08	0.16	0.04	0.06	0.04	0.07	0.49	0.42			
		3500	■	■	0.05	0.09	0.35	0.22	0.15	0.04	0.08	0.31	0.11	0.21	0.04	0.08	0.05	0.09	■	0.56	■		
		4000	■	■	0.06	0.12	■	0.28	0.20	0.05	0.11	0.42	0.13	0.27	0.05	0.11	0.06	0.12	■	0.71	■		
		4271	■	■	0.07	0.13	■	■	■	0.05	0.13	0.49	0.15	0.30	0.05	0.13	0.07	0.13	■	0.79	■		
250, 300 (Cab D)	260D	1898	0.03	0.05	0.01	0.02	0.14	0.06	0.02	0.02	0.01	0.05	0.02	0.04	0.02	0.01	0.01	0.02	0.08	0.07			
		2050	0.03	0.06	0.01	0.02	0.15	0.06	0.03	0.02	0.01	0.05	0.02	0.04	0.02	0.01	0.01	0.02	0.09	0.08			
		2500	0.04	0.07	0.01	0.03	0.17	0.08	0.04	0.02	0.02	0.07	0.03	0.06	0.02	0.02	0.01	0.03	0.12	0.11			
		3000	0.06	0.09	0.02	0.04	0.20	0.10	0.05	0.03	0.02	0.09	0.04	0.08	0.03	0.02	0.02	0.04	0.16	0.14			
		3500	0.07	0.11	0.02	0.05	0.23	0.12	0.07	0.03	0.03	0.13	0.05	0.11	0.03	0.03	0.02	0.05	0.21	0.18			
		4000	0.09	0.13	0.03	0.06	0.26	0.15	0.09	0.04	0.04	0.17	0.07	0.13	0.04	0.04	0.03	0.06	0.26	0.23			
		4500	0.11	0.15	0.04	0.07	0.29	0.18	0.11	0.04	0.05	0.22	0.08	0.16	0.04	0.05	0.04	0.07	0.32	0.28			
		5000	■	■	0.04	0.09	0.33	0.21	0.14	0.04	0.07	0.28	0.10	0.19	0.04	0.07	0.04	0.09	0.39	0.33			
		5500	■	■	0.05	0.10	■	0.24	0.17	0.04	0.08	0.35	0.11	0.23	0.04	0.08	0.05	0.10	■	0.40	■		
		5694	■	■	0.05	0.11	■	0.25	0.18	0.05	0.09	0.38	0.12	0.24	0.05	0.09	0.05	0.11	■	0.42	■		
350, 400A (Cab E)	350D	2657	0.04	0.06	0.01	0.02	0.16	0.07	0.03	0.02	0.01	0.06	0.03	0.05	0.02	0.01	0.01	0.02	0.12	0.10			
		3300	0.05	0.08	0.02	0.03	0.19	0.09	0.05	0.02	0.02	0.09	0.04	0.07	0.02	0.02	0.02	0.03	0.17	0.15			
		3500	0.06	0.09	0.02	0.04	0.20	0.10	0.05	0.02	0.02	0.10	0.04	0.08	0.02	0.02	0.02	0.04	0.19	0.16			
		4000	0.07	0.10	0.02	0.04	0.22	0.12	0.07	0.03	0.02	0.13	0.05	0.10	0.03	0.02	0.02	0.04	0.24	0.21			
		4500	0.08	0.12	0.03	0.05	0.25	0.14	0.09	0.03	0.03	0.17	0.06	0.12	0.03	0.03	0.03	0.05	0.30	0.25			
		5000	0.10	0.14	0.03	0.07	0.28	0.16	0.10	0.03	0.04	0.21	0.07	0.15	0.03	0.04	0.03	0.07	0.36	0.31			
		5500	0.12	0.16	0.04	0.08	0.31	0.19	0.13	0.04	0.05	0.27	0.09	0.17	0.04	0.05	0.04	0.08	0.43	0.36			
		6000	■	■	0.04	0.09	0.34	0.22	0.15	0.04	0.05	0.33	0.10	0.20	0.04	0.05	0.04	0.09	0.50	0.43			
		6500	■	■	0.05	0.10	■	0.25	0.17	0.04	0.07	0.39	0.12	0.23	0.04	0.07	0.05	0.10	■	0.49	■		
		7000	■	■	0.06	0.12	■	0.28	0.20	0.04	0.08	0.47	0.13	0.26	0.04	0.08	0.06	0.12	■	0.56	■		
		7400	■	■	0.06	0.13	■	■	■	0.05	0.09	0.53	0.14	0.29	0.05	0.09	0.06	0.13	■	0.62	■		
		7593	■	■	0.07	0.14	■	■	■	0.05	0.09	0.57	0.15	0.30	0.05	0.09	0.07	0.14	■	0.65	■		

[A] Run RezQuote™ or RezPro® Toolbox Coil Selection Software or call your Reznor Representative.
[B] See tables in coil section for pressure drop at specified conditions, run coil selection software or call your Reznor Representative.
[C] Evaporative cooling module not available on Model SHH.

Limits:
TA filters: 400 fpm
1" Pleated filters: 450 fpm
2" & 4" Pleated: 500 fpm
Perm Filters: Approx 600 fpm
Evap Cooling: Approx 550 fpm (500 is recommended max)

Coils: 200 to 550 fpm (450 is recommended max for 14 fpi w/o reheat up to 550 for dry coils or coils w/reheat)

Reheat Pump Dry Coil PD is shown for all CFM's for multispeed operation when not in cooling mode.

REZNOR®

PRESSURE DROP TABLE

Applies to PREEVA Series Models PEH and REH

PEH, REH Cabinet Size	CFM	Disp. Filters [A]		Perm. Alum. Filters [A]		Pleated Disposable Filters [A]			Mixing Box	Inlet Damper	O/A Intake Hood	Evaporative Cooler Media		Downturn Plenum	Disch Damper	1" Pre-Filter (Opt. PF4)	2" Pre-Filter (Opt. PF5)	Reheat Pump Coils		Add Coil PD from Coil Data Sheet[B]	External PD (Duct System)	Total Adjusted Pressure Drop
		1"	2"	1"	2"	1"	2"	4"				6"	12"					Wet	Dry			
A	420	0.01	0.03	0.00	0.01	0.10	0.03	0.01	0.00	0.01	0.02	0.00	0.00	0.00	0.01	0.00	0.01	■	0.03	■		
	1000	0.04	0.06	0.01	0.02	0.15	0.07	0.03	0.01	0.01	0.03	0.02	0.04	0.01	0.01	0.01	0.02	0.08	0.07			
	1500	0.06	0.09	0.02	0.04	0.21	0.11	0.06	0.02	0.01	0.06	0.04	0.07	0.02	0.01	0.02	0.04	0.15	0.13			
	2000	0.10	0.14	0.03	0.07	0.28	0.16	0.10	0.03	0.02	0.09	0.06	0.12	0.03	0.02	0.03	0.07	0.25	0.21			
	2500	■	■	0.05	0.10	0.35	0.23	0.16	0.03	0.04	0.14	0.09	0.17	0.03	0.04	0.05	0.10	■	0.32	■		
	3000	■	■	0.07	0.13	■	■	■	0.04	0.06	0.20	0.12	0.23	0.04	0.06	0.07	0.13	■	0.45	■		
	3500	■	■	0.09	0.18	■	■	■	0.04	0.08	0.28	■	■	0.04	0.08	■	■	■	0.60	■		
	3800	■	■	■	■	■	■	■	0.05	0.10	0.33	■	■	0.05	0.10	■	■	■	0.70	■		
B	630	0.02	0.03	0.00	0.01	0.10	0.03	0.01	0.00	0.01	0.03	0.00	0.01	0.00	0.01	0.00	0.01	n	0.01	■		
	1000	0.03	0.05	0.01	0.02	0.13	0.05	0.02	0.01	0.01	0.03	0.01	0.02	0.01	0.01	0.01	0.02	0.04	0.03			
	1500	0.05	0.07	0.01	0.03	0.18	0.08	0.04	0.02	0.01	0.04	0.02	0.04	0.02	0.01	0.01	0.03	0.08	0.07			
	2000	0.07	0.10	0.02	0.05	0.23	0.12	0.07	0.02	0.02	0.06	0.04	0.07	0.02	0.02	0.02	0.05	0.14	0.12			
	2500	0.10	0.14	0.03	0.07	0.28	0.17	0.11	0.03	0.03	0.09	0.05	0.11	0.03	0.03	0.03	0.07	0.20	0.17			
	3000	■	■	0.05	0.09	0.34	0.22	0.15	0.04	0.04	0.12	0.07	0.15	0.04	0.04	0.05	0.09	0.27	0.23			
	3500	■	■	0.06	0.12	■	0.28	0.20	0.04	0.06	0.16	0.09	0.19	0.04	0.06	0.06	0.12	■	0.30	■		
	4000	■	■	0.08	0.15	■	■	■	0.04	0.08	0.22	0.12	0.24	0.04	0.08	0.08	0.15	■	0.38	■		
	4500	■	■	0.09	0.19	■	■	■	0.05	0.10	0.28	■	■	0.05	0.10	■	■	■	0.46	■		
	4700	■	■	■	■	■	■	■	0.05	0.11	0.30	■	■	0.05	0.11	■	■	■	0.50	■		
D	1260	0.02	0.04	0.01	0.01	0.11	0.04	0.01	0.01	0.01	0.04	0.01	0.02	0.01	0.01	0.01	0.01	■	0.04	■		
	1500	0.02	0.04	0.01	0.01	0.12	0.04	0.02	0.01	0.01	0.04	0.01	0.02	0.01	0.01	0.01	0.01	■	0.05	■		
	2000	0.03	0.06	0.01	0.02	0.15	0.06	0.03	0.02	0.01	0.05	0.02	0.04	0.02	0.01	0.01	0.02	0.09	0.08			
	2500	0.04	0.07	0.01	0.03	0.17	0.08	0.04	0.02	0.02	0.07	0.03	0.06	0.02	0.02	0.01	0.03	0.12	0.11			
	3000	0.06	0.09	0.02	0.04	0.20	0.10	0.05	0.03	0.02	0.09	0.04	0.08	0.03	0.02	0.02	0.04	0.16	0.14			
	3500	0.07	0.11	0.02	0.05	0.23	0.12	0.07	0.03	0.03	0.13	0.05	0.11	0.03	0.03	0.02	0.05	0.21	0.18			
	4000	0.09	0.13	0.03	0.06	0.26	0.15	0.09	0.04	0.04	0.17	0.07	0.13	0.04	0.04	0.03	0.06	0.26	0.23			
	4500	0.11	0.15	0.04	0.07	0.29	0.18	0.11	0.04	0.05	0.22	0.08	0.16	0.04	0.05	0.04	0.07	0.32	0.28			
	5000	■	■	0.04	0.09	0.33	0.21	0.14	0.04	0.07	0.28	0.10	0.19	0.04	0.07	0.04	0.09	0.39	0.33			
	5500	■	■	0.05	0.10	0.36	0.24	0.17	0.04	0.08	0.35	0.11	0.23	0.04	0.08	0.05	0.10	■	0.40	■		
	6000	■	■	0.06	0.12	■	0.28	0.20	0.05	0.10	0.43	0.13	0.26	0.05	0.10	0.06	0.12	■	0.46	■		
	6500	■	■	0.07	0.14	■	■	■	0.05	0.12	0.51	0.15	0.30	0.05	0.12	0.07	0.14	■	0.54	■		
	7000	■	■	0.08	0.16	■	■	■	0.05	0.14	0.60	■	■	0.05	0.14	■	■	■	0.61	■		
E	1685	0.02	0.04	0.01	0.01	0.12	0.04	0.02	0.01	0.01	0.05	0.01	0.02	0.01	0.01	0.01	0.01	■	0.04	■		
	2000	0.03	0.05	0.01	0.02	0.13	0.05	0.02	0.01	0.01	0.05	0.02	0.03	0.01	0.01	0.01	0.02	0.07	0.06			
	2500	0.04	0.06	0.01	0.02	0.15	0.07	0.03	0.02	0.01	0.06	0.02	0.05	0.02	0.01	0.01	0.02	0.11	0.09			
	3000	0.05	0.07	0.01	0.03	0.17	0.08	0.04	0.02	0.01	0.08	0.03	0.06	0.02	0.01	0.01	0.03	0.15	0.12			
	3500	0.06	0.09	0.02	0.04	0.20	0.10	0.05	0.02	0.02	0.10	0.04	0.08	0.02	0.02	0.02	0.04	0.19	0.16			
	4000	0.07	0.10	0.02	0.04	0.22	0.12	0.07	0.03	0.02	0.13	0.05	0.10	0.03	0.02	0.02	0.04	0.24	0.21			
	4500	0.08	0.12	0.03	0.05	0.25	0.14	0.09	0.03	0.03	0.17	0.06	0.12	0.03	0.03	0.03	0.05	0.30	0.25			
	5000	0.10	0.14	0.03	0.07	0.28	0.16	0.10	0.03	0.04	0.21	0.07	0.15	0.03	0.04	0.03	0.07	0.36	0.31			
	5500	0.12	0.16	0.04	0.08	0.31	0.19	0.13	0.04	0.05	0.27	0.09	0.17	0.04	0.05	0.04	0.08	0.43	0.36			
	6000	■	■	0.04	0.09	0.34	0.22	0.15	0.04	0.05	0.33	0.10	0.20	0.04	0.05	0.04	0.09	0.50	0.43			
	6500	■	■	0.05	0.10	0.37	0.25	0.17	0.04	0.07	0.39	0.12	0.23	0.04	0.07	0.05	0.10	0.58	0.49			
	7000	■	■	0.06	0.12	■	0.28	0.20	0.04	0.08	0.47	0.13	0.26	0.04	0.08	0.06	0.12	■	0.56	■		
	7500	■	■	0.07	0.13	■	■	■	0.05	0.09	0.55	0.15	0.29	0.05	0.09	0.07	0.13	■	0.64	■		
	8000	■	■	0.07	0.15	■	■	■	0.05	0.10	0.64	■	■	0.05	0.10	■	■	■	0.72	■		
	8400	■	■	0.08	0.16	■	■	■	0.05	0.11	0.71	■	■	0.05	0.11	■	■	■	0.79	■		

Limits:
TA filters: 400 fpm
1" Pleated filters: 450 fpm
2" & 4" Pleated: 500 fpm
Perm Filters: Approx 600 fpm
Evap Cooling: Approx 550 fpm (500 is recommended max)

Coils: 180 to 550 fpm (450 is recommended max for 14 fpi w/o reheat up to 550 for dry coils or coils w/reheat)

Reheat Pump Dry Coil PD is shown for all CFM's for multispeed operation when not in cooling mode.

REZNOR®

HEATING AND HEATING/COOLING CONTROLS

Applies to PREEVA Series (as indicated)

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)	Remote temperature dial supplied as part of AG15, AG16, AG61, and AG62; Two-stage room thermostat, either Option CL33 or field supplied
AG15		Electronic 2-stage discharge air sensor with remote setpoint, 50-120°F	
AG16		Same as AG15 plus digital discharge temperature display	
AG60	Makeup air with constant discharge air temperature and constant thermal efficiency with 33% low fire capacity - natural gas, 40% low fire capacity - propane	Two-stage ductstat, 50-120°F (discharge air temperature)	
AG61		Electronic discharge air sensor with remote setpoint, 50-120°F	
AG62		Same as AG61 plus digital discharge temperature display	
AG40	Electronic modulation heating (25% low fire - natural gas; 40% low fire -propane)	Includes signal conditioner that accepts an input signal of either 4-20 milliamps or 0-10 volts from a field-supplied controller and converts it to the 0-20 volt DC current required to control the modulating valve. Temperature selection or building system management is from customer-supplied software.	
Heating/Cooling DIGITAL Controls			
All heating/cooling controls (Options DG1, DG2, DG5, and DG6) have a unit-mounted digital controller that is programmed with individual and adjustable heating and cooling setpoints, adjustable changeover setpoint, and low ambient cutoff setpoint. **Depending on which option is selected, the digital controller provides either adjustable room or discharge temperature setpoint.** Both room command modules (below) include "heat-vent-cool and auto-off" blower switches and unoccupied override push button.			
DG1	Space Temperature Control	2-stage heating (33% low fire capacity - natural gas, 40% low fire capacity - propane) / 3-stage cooling	Room-mounted command module with 45-95°F space temperature setpoint.
DG2		Electronic modulation heating (25% low fire - natural gas, 40% low fire - propane) / 3-stage cooling	
DG5	Makeup Air Control (Neutral Air)	2-stage heating (33% low fire capacity - natural gas, 40% low fire capacity - propane) / 3-stage cooling	Room-mounted command module sensing discharge temperature (45-95°F). Discharge setpoint can be adjusted ±6°F.
DG6		Electronic modulation heating (25% low fire - natural gas, 40% low fire - propane) / 3-stage cooling	
D12B-E	Makeup Air Control with Dehumidification	Neutral air/makeup air control with optional space reset/override. Electric heat with SCR control or 4:1 gas modulation. Three stage cooling, dehumidification, schedule and lockouts.	Remote temperature sensor CL67 and remote display RB2A
D12F	Space Temperature Control	Heating and/or Cooling control with optional space reset control:70% low fire capacity, 2 Stage Gas control, 3-stage cooling, lockouts, time schedule. CL67 user adjustable setpoint module must be ordered.	Remote temperature sensor CL67 and remote display RB2A

Ductstat in Options AG3 and AG60

Electronic Ductstat in Options AG15, AG16, AG61, and AG62

Digital Controller and Room Command Modules in Options DG1, DG2, DG5, and DG6

FX05

Programmable Controller

Space Temperature Room-Mounted Command Module part of DG1 and DG2

Makeup Air (Discharge Temperature) Room-Mounted Command Module part of DG5 and DG6

Digital Controller and Room Command Modules in Options D12B, D12C, D12D, D12E, and D12F

FX06

Programmable Controller

RB2A Control Option

CL67 Control Option

REZNOR®

HEATING AND HEATING/COOLING CONTROLS

FX05 SEQUENCE OF OPERATION

Applies to Models PDH, RDH & SDH

INTRODUCTION

Available with the new Reznor PREEVA indirect-fired series is an optional factory installed and pre-programmed complete digital heating and cooling master control. Control options DG1, DG2, DG5, and DG6 come compete with a Johnson Control's FX-05 advanced controller and room command module providing total unit control.

Option DG1 is programmed for 2-stage gas heat & 3-stage cooling with a space temperature controller (45 to 95°F)

Option DG2 is programmed for electronic modulating gas heat for 4:1 turndown capacity on Natural gas (2.5:1 on Propane gas) & 3-stage cooling with a space temperature controller (45 to 95°F)

Option DG5 is programmed for 2-stage gas heat & 3-stage cooling with a discharge air temperature controller that can adjust the discharge air ± 6 °F from setpoint.

Option DG6 is programmed for electronic modulating gas heat for 4:1 turndown capacity on Natural gas (2.5:1 on propane gas) & 3-stage cooling with a discharge air temperature controller that can adjust the discharge air ± 6 °F from setpoint.

All control options include a separate room command module from which the unit can be turned on or off, set to heat, vent or cool mode has an unoccupied override push button. The push-button when activated will immediately command the unit to temporarily lock the controller to the occupied setpoints for 60 minutes. Additionally, the advanced controller can be fitted with a real 7-day time clock card for energy savings and better management of the specific application or a serial communication card for compatibility with either the LON or N2open BAS protocols.

KEY FACTORY DEFAULT SETPOINTS FOR ALL DG OPTIONS

- Occupied Heating Setpoint (HSP) is 68°F. Only operable when slider switch is in "heat" position
- Occupied Cooling Setpoint (CSP) is 72°F. Only operable when slider switch is in "cool" position
- Offset temperature setpoint (DB) is 2°F. Only operable when slider switch is in "auto" position
- Unoccupied Heating Setpoint is the Occupied Heating setpoint minus the adjustable default value of 10°F or 58°F.
- Unoccupied Cooling setpoint is the Occupied Cooling setpoint plus the adjustable default value of 10°F or 82°F.
- Heating deadband (HDB) for occupied and unoccupied mode is adjustable, but factory set at 0°F.
- Heating Prop Band (HPB) for occupied and unoccupied mode is adjustable, but factory set at 10°F.
- Cooling Prop Band (CPB) for occupied and unoccupied mode is adjustable, but factory set at 10°F.
- Boost Setting: When option CL56 (automatic room override thermostat) contacts are closed an immediate boost mode will add an adjustable amount (default 5°F) to the occupied heating setpoint and subtracted from the occupied cooling setpoint to bring the space to the temperature setting of the thermostat. Boost is inoperable in the Auto mode.
- Second Stage Heat Energizing (SSH) is adjustable, but is factory set at a default of 90% of the prop band or 9°F.
- Second Stage Heating Disable (SSO) is adjustable, but is factory set at a default of 5% of the prop band or 0.5°F.

DG1 AND DG2 HEATING SEQUENCE OF OPERATION

As noted above the controller comes complete with a simple preprogrammed sequence of operation and factory set parameters that are typical for most heating and cooling applications. Options DG1 and DG2 use the value at the room command module dial as the heating setpoint, when the switch is set to heating only mode. It is used as the cooling setpoint when the switch is set to cooling only mode. In the Auto Mode, the setpoint dial is the point from which the value of the offset (± 2 °F default) is added and subtracted to achieve the working heating and working cooling setpoints. (For example: if the dial is set is at 72°F, with the value of the offset at 2°F, then the working heating setpoint is 70°F and the working cooling setpoint is 74°F. Either heating or cooling can occur when the switch is in this mode.

In a typical sequence of operation, with the module switch set to heating, the unit will initiate heating if the temperature sensed in the space falls below the heating setpoint (HSP) and the heating deadband (HDB). When this occurs on units with option DG1, the ignition sequence is energized, as is the first or low stage valve. If required, the second or high stage valve will close at the SSH setting (default 90% of the prop band or 9°F.) The second or high stage gas valve will open when the proportional band is below the SSO setting (default 5% of the prop band or 0.5°F). The first or low stage valve will open when the space is above the heating setpoint (HSP) plus the heating deadband (HDB).

Using the defaults as an example, if the space temperature drops below 68°F, the first stage of the two stage gas valve will be energized.

If the space temperature continues to drop to 59°F, the second stage will be energized.

The second stage remains energized until the space temperature reaches 67.5°F, then is de-energized.

The first stage is de-energized when the space temperature reaches the setpoint of 68°F.

REZNOR®

HEATING AND HEATING/COOLING CONTROLS (cont'd)

FX05 SEQUENCE OF OPERATION (cont'd)

DG1 AND DG2 HEATING SEQUENCE OF OPERATION (cont'd)

For units with option DG2, upon a call for heat the ignition sequence is energized as is the safety valve ahead of the modulating valve. The analog output signal will allow the modulating gas valve to fully open for 80 seconds to ensure proper burner ignition. The gas valve will then modulate to a position, linearly with the HSP and the HPB to maintain the space temperature on the room command module.

For example, when the space temperature drops to 67°F, the modulating valve will be fully open for 80 seconds then modulate to the minimum flow position (approximately 6 VDC). If the temperature continues to drop to 58°F, the valve would be in the full open position (approximately 3 VDC). The modulating valve will de-energize when the space temperature reaches the heating setpoint.

DG5 AND DG6 HEATING SEQUENCE OF OPERATION

As noted above the controller comes complete with a simple preprogrammed sequence of operation and factory set parameters that are typical for most heating and cooling applications. Options DG5 and DG6 use the working setpoint value, defined as the heating setpoint (68°F default) plus or minus the setting of the room command module dial. The dial can change the discharge air setpoint ± 6°F or from 62° to 74°F when using the default setting.

In a typical sequence of operation, with the module switch set to heating, the unit will initiate heating if the discharge duct sensor temperature falls below the working setpoint temperature and the heating deadband. When this occurs on units with option DG5, the ignition sequence is energized, as is the first or low stage valve. If required, the second or high stage valve will close at the SSH setting (default 90% of the prop band or 9°F.) The second or high stage gas valve will open when the proportional band is below the SSO setting (default 5% of the prop band or 0.5°F). The first or low stage valve will open when the discharge temperature is above the working setpoint temperature (HSP) plus the heating deadband (HDB).

Using the defaults as an example, if the discharge temperature drops below 68°F, the first stage of the two-stage gas valve will be energized.

If the discharge temperature continues to drop to 59°F, the second stage will be energized.

The second stage remains energized until the discharge temperature reaches 67.5°F then is de-energized.

The first stage is de-energized when the discharge temperature reaches the setpoint of 68°F.

For units with option DG6, upon a call for heat the ignition sequence is energized as is the safety valve ahead of the modulating valve. The analog output signal will allow the modulating gas valve to fully open for 80 seconds to ensure proper burner ignition. The gas valve will then modulate to a position, linearly with the HSP and the HPB to maintain the working setpoint temperature.

For example, when the working discharge temperature drops to 67°F, the modulating valve will be fully open for 80 seconds then modulate to the minimum flow position (approximately 6 VDC).

If the temperature continued to drop to 58°F, the valve would be in the full-open position (approximately 3 VDC). The modulating valve will de-energize when the discharge temperature reaches the working heating setpoint.

DG1, DG2, DG5 AND DG6 COOLING SEQUENCE OF OPERATION

In a typical sequence of operation, with the module switch set to cooling, the unit will initiate cooling if the space temperature (DG1 or DG2) or the discharge duct sensor temperature (DG5 or DG6) climbs above the cooling setpoint temperature (CSP) or the working cooling setpoint temperature into the cooling prop band. At this point the stage one cooling is energized when the space or discharge temperature reaches 10% of the cooling prop band. The second stage of cooling will be energized when the temperature reaches 40% of the cooling prop band and third stage will be energized when the temperature reaches 99% of the prop band.

For example, if the working cooling setpoint on a DG5 system (WCSP) is 72°F, Stage 1 cooling is energized when discharge air temperature increases to 73°F (10% of the 10°F CPB).

Stage 2 is energized when space temperature increases to 76°F (40% of the 10°F CPB).

Stage 3 is energized when the space temperature increases to 81.9°F (99% of the 10°F CPB).

As the space temperature moves back towards WCSP, stage 3 is de-energized at 40% call for cooling, stage 2 is de-energized at 10% call for cooling, and stage 1 is de-energized at 5%.

Compressor Interstage Delay time and Compressor Minimum On time are controlled by the built in time delay which is defaulted at 240 seconds. This means that if stage 1 has just begun, stage 2 cannot start for 240 seconds. Once stage 1 has begun, it must run for 240 seconds before it will be turned off.

BLOWER MODES OF OPERATION

- With the module switch set to the fan or vent position, the blower will run continuously, and heating and cooling modes cannot function.
- When the unit is in the occupied mode and the switch is in either the heat or cool mode, the blower will run continuously. In the unoccupied mode, the fan will only run when there is a call for heating or cooling.
- Proof of fan operation is always monitored via the air-proving switch. If fan proof is lost for 3 seconds, the heating or cooling functions will be shutdown.
- If the mode switch is moved to the off position or the normal heating or cooling cycle ends, the fan will run for a post-purge of 30 seconds.

SAFETY MODES OF OPERATION

- If the controller's discharge air or space sensor reads a temperature value below 36°F for seven continuous minutes, the unit will stop all heating, cooling, or vent functions.
- If the unit's outdoor air sensor reads 68°F or below, mechanical cooling will not function.
- If the unit's outdoor air sensor reads 62°F or above, heating will not function.

REZNOR®

HEATING AND HEATING/COOLING CONTROLS (cont'd)

FX06 SEQUENCE OF OPERATION

NOTE: Control Option D12-B, C, D or E is required with Dehumidification Option AU7L or AU7R

FX06

Programmable Controller

Option D12B (Models PDH, RDH & SDH only)

Option D12C (Models PDH, RDH & SDH only)

Option D12D (Models PEH & REH only)

Option D12E (Models PEH & REH only)

Option D12F (Model SHH only)

General

When the unit is called to operate by external contact closure, time schedule or communication command, the main blower will start and run continuously in occupied mode. The unit operates based on four **Discharge Air Temperature Setpoints listed below**.

- Neutral air heating (default 70°F)
- Space heating (default 80°F)
- Neutral air cooling (default 70°F)
- Neutral air cooling (default 55°F)

The heating and cooling equipment will cycle to maintain the active discharge air temperature setpoint for occupied and unoccupied modes. Heating and cooling may be locked out of operation based upon outdoor air temperature and enthalpy conditions. If equipped with reheat, the control will also activate the dehumidification circuit to maintain a neutral discharge air temperature setpoint and related dewpoint based upon outdoor air and space conditions.

Time Clock:

An FX06 controller has a built-in real time clock. The unit will switch between occupied and unoccupied mode based upon a time of day schedule if activated. In addition, the unit can be commanded to occupied or unoccupied mode using the external dry contacts.

Occupied Mode:

Blower operation is continuous in occupied mode. If equipped with a 2-position damper, the outdoor air damper is electrically interlocked with the blower circuit. When the damper actuator opens to 80%, the blower is allowed to run. If power is lost, the mechanical spring will drive the damper closed.

Unoccupied Mode:

The blower cycles ON/OFF with a call for either heating or cooling from the space sensor. Once the space heating or cooling unoccupied setpoints are satisfied, the blower will continue to run for 60 seconds then shut OFF. During the Unoccupied Cycle the space temperature setpoints will increase/decreased by 9°F (user adjustable)

Unoccupied Override Mode:

If the space setpoint dial on the space sensor is turned during an unoccupied period, the air handling unit will operate in occupied mode for a period of four hours (adjustable 0-800 minutes).

Heating Mode:

(Model SHH in Heating Mode is return air only)

When the unit is in heating mode, the unit will discharge air based upon the neutral air discharge heating setpoint point (Default = 70ºF) or the room discharge air heating setpoint (Default = 80ºF). When the space temperature is below the dial setpoint by 1.8ºF, the unit will provide room discharge air temperature to maintain the dial setpoint temperature. The unit will remain in space heating mode until the space temperature is above the setpoint by 1.8ºF. The unit provides "Neutral Air" temperatures when not in space heating or cooling modes. If the space sensor is not installed, the unit will operate to provide neutral air only.

Upon a call for heat, to maintain the active discharge air setpoint, the unit will cycle between 1-2 stages of heat and (if available) modulate the gas valve/SCR to maintain the discharge air temperature.

Cooling Mode:

When the unit is in cooling mode, the unit will discharge air based upon the neutral air cooling setpoint point (Default = 70ºF) and the room discharge air cooling setpoint (Default = 55ºF). When the space temperature is above the dial setpoint by 1.8ºF, the unit will provide room discharge air temperature to maintain the dial setpoint temperature. The unit will remain in space cooling mode until the space temperature is below the dial setpoint by 1.8ºF. The unit provides "Neutral Air" temperatures when not in space heating or cooling modes. If the space sensor is not installed, the unit will operate to provide neutral air only.

Upon a call for cooling mode to maintain the active discharge air setpoint, the unit will cycle between 1-3 stage of DX control to maintain the discharge air temperature. The anti-cycling program limits the availability of compressors and minimum on/off times.

Dehumidification:

(Not applicable to Model SHH)

Reheat control is enabled based on the outdoor dewpoint temperature setpoint (DP1). If the outside air dewpoint is above the setpoint (DP1 = 60ºF), the reheat circuit will activate. The reheat circuit adds 12°F to 17°F to the discharge air temperature after it leaves the main evaporator coils of the unit. The cooling circuit will stage to maintain the active discharge air temperature setpoint. The reheat control output will be OFF based upon any of the following conditions:

- The space temperature sensor calls for the unit to provide space cooling.
- The unit is equipped with a space humidistat that can de-activate the reheat.
- Mechanical low and high limit temperature limit lockouts.

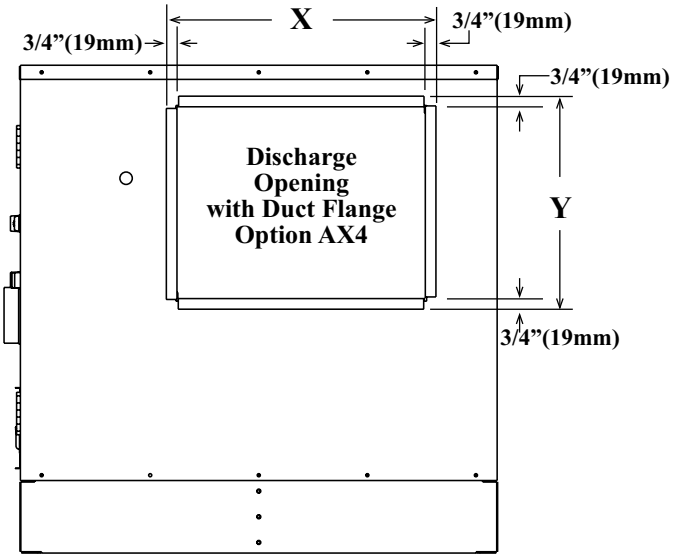
REZNOR®

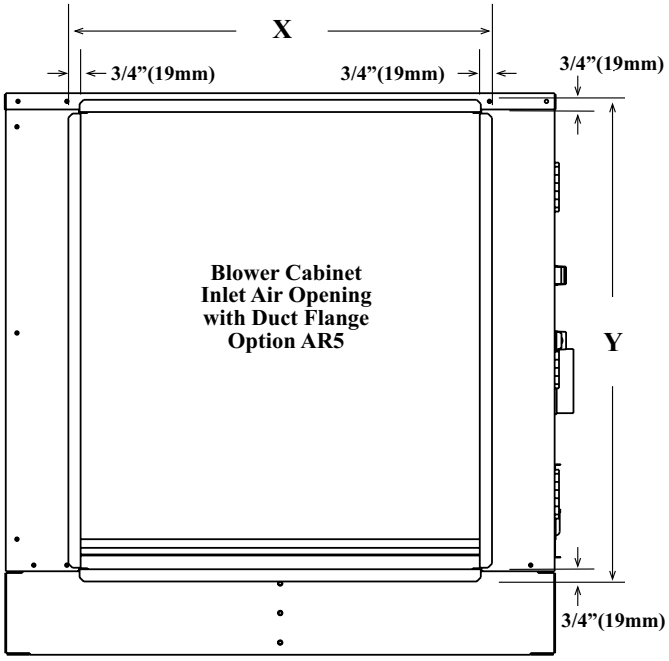
MODEL PDH, PEH, SDH and SHH
Optional Accessories

DUCT FLANGE DIMENSIONS

The optional discharge duct flange is 4" (102mm) deep with a 3/4" (19mm) wide flange on all sides.

The optional inlet duct flange on the blower cabinet is 1-1/2" (38mm) deep with a 3/4" (19mm) wide flange on all sides.





Dimensions of Optional Discharge Duct Flange

PEH Cabinet Size	PDH or SDH Size	SHH	X		Y	
			inches	(mm)	inches	(mm)
A	**75, 100**	**-**	19 1/16	(484)	15 1/16	(383)
B	**125, 150**	**-**	29 1/16	(738)	15 1/16	(383)
N/A	**175, 200, 225**	**130C, 180C**	22 1/4	(565)	24 5/16	(618)
D	**250, 300**	**260D**	30 1/8	(765)	24 5/16	(618)
E	**350, 400A**	**350E**	29 13/16	(757)	24 5/16	(618)

[A] Discharge Duct Flange is standard on Model PEH.

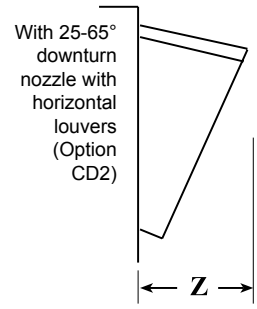
Dimensions of Optional Inlet Air Duct Flange

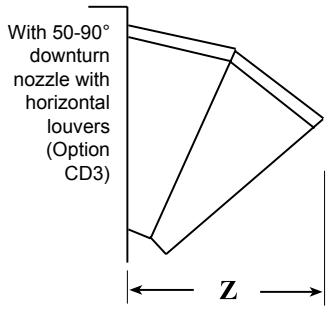
PEH Cabinet Size	PDH, SDH Size	SHH	X		Y	
			inches	mm	inches	mm
A	**75, 100**	**-**	26	(660)	26 9/16	(675)
B	**125, 150**	**-**	36	(914)	26 9/16	(675)
N/A	**175, 200, 225**	**130C, 180C**	26	(660)	38 7/8	(987)
D	**250, 300**	**260D**	42 1/4	(1,073)	38 7/8	(987)
E	**350, 400A**	**350E**	50 1/4	(1,276)	38 7/8	(987)

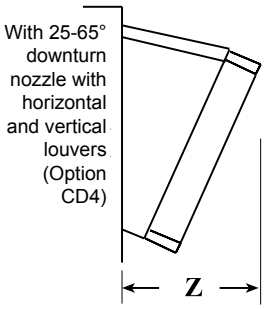
Inlet air dimensions different on cooling coil cabinet.

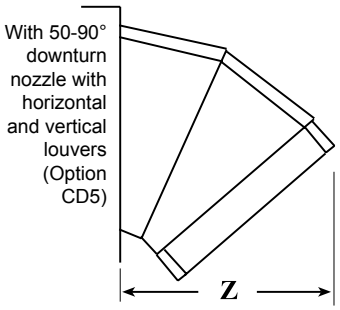
DISCHARGE AIR NOZZLE DIMENSIONS

Applies to Models PDH, SDH and SHH only.









Dimension Z

PDH, SDH Sizes	75, 100, 125, 150		175, 200, 225, 250, 300, 350, 400A	
SHH Sizes	-		130C, 180C, 260D, 350E	
Option	inches	mm	inches	mm
CD2	9	(229)	13 9/16	(344)
CD3	15 11/16	(398)	23 5/8	(600)
CD4	12 1/2	(318)	17 1/8	(435)
CD5	18 15/16	(481)	25 11/16	(652)

Option CD5 - Nozzle with Horizontal and Vertical Louvers

REZNOR®

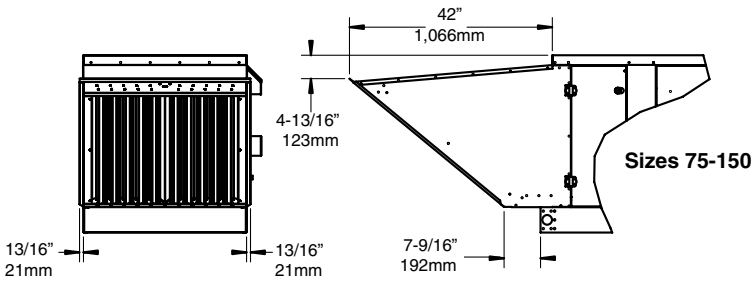
MODEL RDH and REH ACCESSORIES

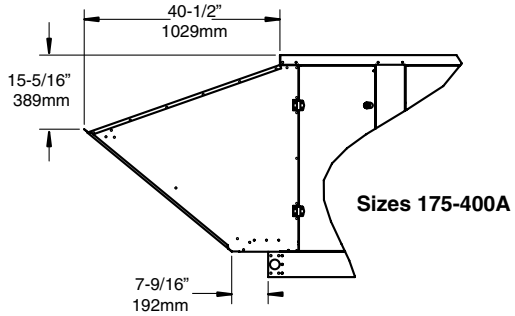
OPTIONAL WEATHER HOOD - Dimensions

100% Outside Air Screened Intake Hood w/Rain Baffles - Option AS2

Weather hood shipped separately, knocked down, for field installation.

REH Cabinet Size	RDH Size	lbs	(kg)
A	75-100	70	(32)
B	125-150	76	(34)
N/A	175-225	76	(34)
D	250-300	87	(39)
E	350-400A	96	(44)

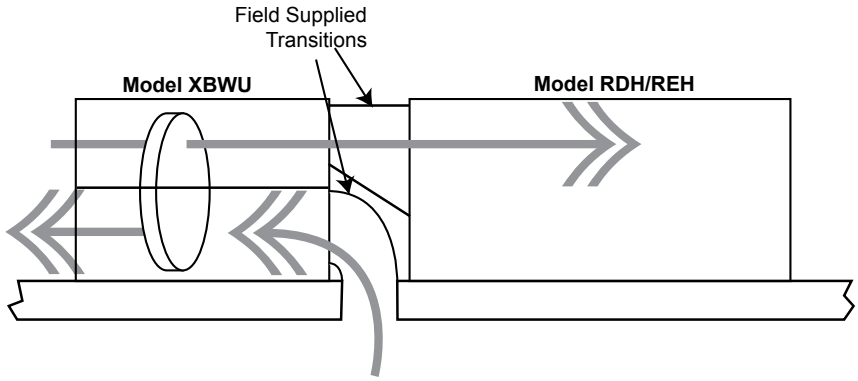




OPTIONAL ENERGY RECOVERY ARRANGEMENT

For more information, see the Energy Recovery Catalog, Form C-ER.

ARRANGEMENT FOR USE WTIH ENERGY RECOVERY MODULE



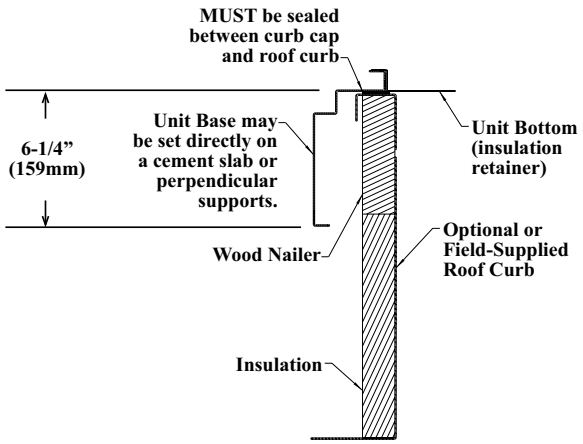
MODEL RDH and REH ROOF CURB

Model RDH and REH outdoor systems are designed to be mounted on a roof or a cement slab. The system may be set directly on a slab without any additional support. When on a roof, either a manufacturer-designed roof curb, a field-supplied roof curb, or other field-supplied support is required. NOTE: A roof curb is recommended with a downturn plenum and/or bottom return air to provide a weatherproof installation.

The system is equipped with a load-bearing curb cap which forms the integral part of the unit. The curb cap has bolted seams and is designed so that it may be set directly on a cement slab, on perpendicular supports, or over a roof curb.

NOTE: When replacing existing Model RBP or RGB with Model RDH, a transition curb is required. For dimension information on transition curb, go to www.RezSpec.com, and search for "rdhtransitioncurb" (no spaces).

Curb Cap Base

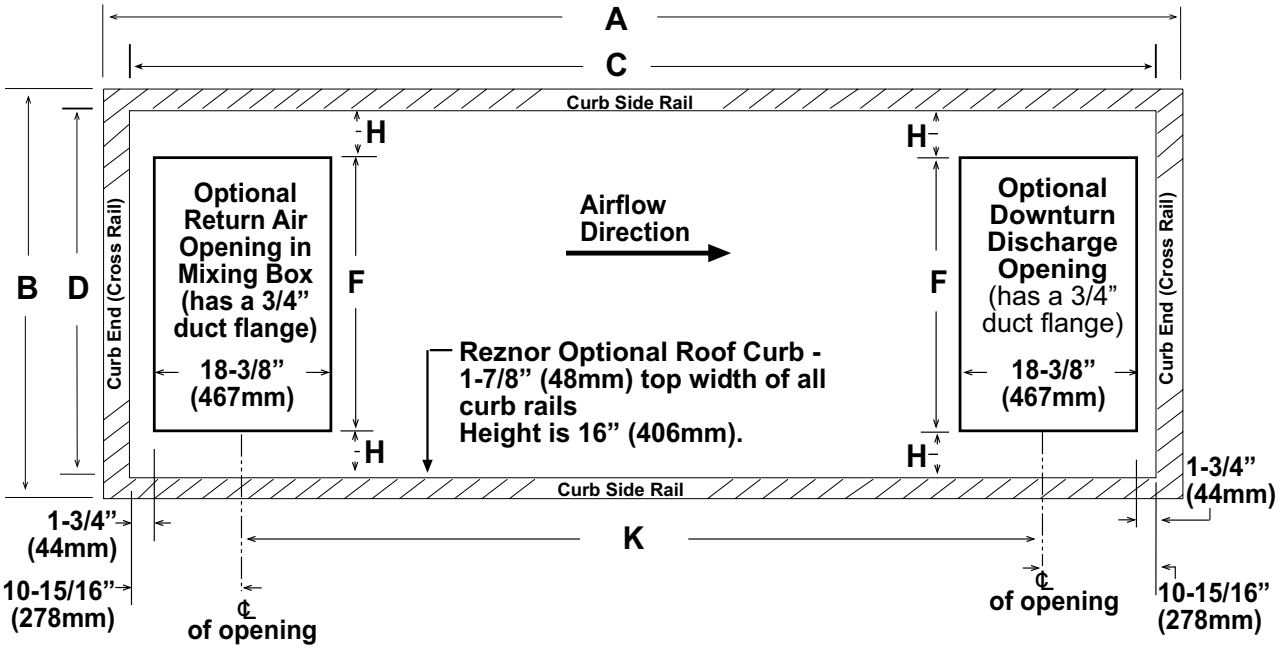


REZNOR®

MODEL RDH and REH
ROOF CURB DIMENSIONS

Configuration*	Option Code	RDH Size	REH Size	Inches (±1/8)				mm (±3)				Weight	
				A	B	C	D	A	B	C	D	lbs	kg
Basic Unit ONLY (blower and heat section) with horizontal discharge	CJ8A	75/100	10A/20A/40A	51-13/16	29-13/16	48-1/16	26-1/16	1,316	757	1,221	662	90	41
		125/150	15B/30B/60B	51-13/16	39-13/16	48-1/16	36-1/16	1,316	1,011	1,221	916	101	46
		175/200/225	N/A	67-1/2	29-13/16	63-3/4	26-1/16	1,715	757	1,619	662	107	49
		250/300	30D/60D/90D/120D	67-1/2	46-1/16	63-3/4	42-5/16	1,715	1,170	1,619	1,075	125	57
		350/400A	40E/80E/120E	67-1/2	54-1/16	63-3/4	50-5/16	1,715	1,373	1,619	1,278	134	61
Basic unit PLUS 1 either - Downturn Discharge Plenum (AQ5 or AQ8); OR Mixing Box (MXB1) with horizontal discharge; OR Cooling Coil Cabinet without Reheat (AU5 or AU6) with horizontal discharge	CJ8B	75/100	10A/20A/40A	79-9/16	29-13/16	75-13/16	26-1/16	2,021	757	1,926	662	120	54
		125/150	15B/30B/60B	79-9/16	39-13/16	75-13/16	36-1/16	2,021	1,011	1,926	916	131	59
		175/200/225	N/A	95-1/4	29-13/16	91-1/2	26-1/16	2,419	757	2,324	662	138	63
		250/300	30D/60D/90D/120D	95-1/4	46-1/16	91-1/2	42-5/16	2,419	1,170	2,324	1,075	155	70
		350/400A	40E/80E/120E	95-1/4	54-1/16	91-1/2	50-5/16	2,419	1,373	2,324	1,278	164	74
Basic unit PLUS 2 - Down Discharge (AQ5or8) AND Mixing Box OR Cooling Coil Cabinet without Reheat (AU5or6); OR Mixing Box AND Cooling Coil Cabinet without Reheat AU5or6) with horizontal discharge	CJ8C	75/100	10A/20A/40A	107-5/16	29-13/16	103-9/16	26-1/16	2726	757	2631	662	151	68
		125/150	15B/30B/60B	107-5/16	39-13/16	103-9/16	36-1/16	2726	1011	2631	916	162	73
		175/200/225	N/A	123	29-13/16	119-1/4	26-1/16	3124	757	3029	662	168	76
		250/300	30D/60D/90D/120D	123	46-1/16	119-1/4	42-5/16	3124	1170	3029	1075	186	84
		350/400A	40E/80E/120E	123	54-1/16	119-1/4	50-5/16	3124	1373	3029	1278	195	88
Basic unit PLUS 3 - Down Discharge Plenum (AQ5or8) AND Mixing Box (MXB1) AND Cooling Coil Cabinet without Reheat (AU5 or AU6)	CJ8D	75/100	10A/20A/40A	135-1/16	29-13/16	131-5/16	26-1/16	3431	757	3335	662	181	82
		125/150	15B/30B/60B	135-1/16	39-13/16	131-5/16	36-1/16	3431	1011	3335	916	192	87
		175/200/225	N/A	150-3/4	29-13/16	147	26-1/16	3829	757	3734	662	199	90
		250/300	30D/60D/90D/120D	150-3/4	46-1/16	147	42-5/16	3829	1170	3734	1075	216	98
		350/400A	40E/80E/120E	150-3/4	54-1/16	147	50-5/16	3829	1373	3734	1278	225	102
Basic unit PLUS 1 - Cooling Coil Cabinet with Reheat (AU7) with horizontal discharge	CJ8E	75/100	10A/20A/40A	104-9/16	29-13/16	100-13/16	26-1/16	2656	757	2561	662	149	68
		125/150	15B/30B/60B	104-9/16	39-13/16	100-13/16	36-1/16	2656	1011	2561	916	160	73
		175/200/225	N/A	120-1/4	29-13/16	116-1/2	26-1/16	3054	757	2959	662	167	76
		250/300	30D/60D/90D/120D	120-1/4	46-1/16	116-1/2	42-5/16	3054	1170	2959	1075	184	83
		350/400A	40E/80E/120E	120-1/4	54-1/16	116-1/2	50-5/16	3054	1373	2959	1278	193	88
Basic unit PLUS 2 - Cooling Coil Cabinet with Reheat (AU7) AND Down Discharge Plenum (AQ5or8) OR Mixing Box (MXB1) with horizontal discharge	CJ8F	75/100	10A/20A/40A	132-5/16	29-13/16	128-9/16	26-1/16	3361	757	3266	662	180	82
		125/150	15B/30B/60B	132-5/16	39-13/16	128-9/16	36-1/16	3361	1011	3266	916	191	87
		175/200/225	N/A	148	29-13/16	144-1/4	26-1/16	3759	757	3664	662	197	89
		250/300	30D/60D/90D/120D	148	46-1/16	144-1/4	42-5/16	3759	1170	3664	1075	215	98
		350/400A	40E/80E/120E	148	54-1/16	144-1/4	50-5/16	3759	1373	3664	1278	224	102
Basic unit PLUS 3 - Cooling Coil Cabinet with Reheat (AU7) AND Down Discharge Plenum (AQ5or8) AND Mixing Box (MXB1)	CJ8G	75/100	10A/20A/40A	160-1/16	29-13/16	156-5/16	26-1/16	4066	757	3970	662	210	95
		125/150	15B/30B/60B	160-1/16	39-13/16	156-5/16	36-1/16	4066	1011	3970	916	221	100
		175/200/225	N/A	175-3/4	29-13/16	172	26-1/16	4464	757	4369	662	228	103
		250/300	30D/60D/90D/120D	175-3/4	46-1/16	172	42-5/16	4464	1170	4369	1075	245	111
		350/400A	40E/80E/120E	175-3/4	54-1/16	172	50-5/16	4464	1373	4369	1278	254	115

		Dimensions (inches ±1/8)					Dimensions (mm ±3)				
		F	H	K (with mixing box and down discharge)			F	H	K (with mixing box and down discharge)		
RDH Size	REH Size	(with mixing box and/ or down discharge)		no cooling coil module	with a cooling coil module		(with mixing box and/or down discharge)		no cooling coil module	with a cooling coil module	
					no reheat	with reheat				no reheat	with reheat
75/100	10A/20A/40A	22-7/8	1-9/16	81-5/8	109-3/8	134-3/8	581	40	2073	2778	3413
125/150	15B/30B/60B	26-1/2	4-3/4	81-5/8	109-3/8	134-3/8	673	121	2073	2778	3413
175/200/225	N/A	22-7/8	1-9/16	97-3/8	125-1/8	150-1/8	581	40	2473	3178	3813
250/300	30D/60D/90D/120D	34-3/4	3-3/4	97-3/8	125-1/8	150-1/8	883	96	2473	3178	3813
350/400A	40E/80E/120E	45-13/16	2-1/4	97-3/8	125-1/8	150-1/8	1164	57	2473	3178	3813



• Curb is 16" high.

REZNOR®

HIGH ALTITUDE CAPACITY CHANGES

Models PDH, RDH, SDH - U.S. Installations

The input and/or the capacity of the heater changes with altitude. The table below lists inputs and capacities at altitudes from sea level to 9,000 ft (2,745M) for installations in the United States. The table on the following page lists inputs and capacities at altitudes from sea level to 4,500 ft (1373M) for installations in Canada.

BTUH Inputs and Capacities by Altitude in the UNITED STATES for Models PDH, RDH & SDH

ALTITUDE		Normal Input	Thermal Output Capacity	2-Stage Minimum Input (applies to AG2, AG3, AG15, AG16)	2-Stage with Venter Motor Controller Minimum Input (applies to AG60, AG61, AG62, DG1, DG5, D12A)		Modulation Minimum Input (applies to Options DG2, DG6, D12B)	
					Natural	Propane	Natural	Propane
Feet	**Meters**	**Size 75**						
0-2000	0-610	75,000	60,750	52,500	24,750	30,000	18,750	30,000
2001-3000	611-915	70,500	57,105	49,350	23,265	28,200	17,625	28,200
3001-4000	916-1220	69,000	55,890	48,300	22,770	27,600	17,250	27,600
4001-5000	1221-1525	67,500	54,675	47,250	22,275	27,000	16,875	27,000
5001-6000	1526-1830	66,000	53,460	46,200	21,780	26,400	16,500	26,400
6001-7000	1831-2135	64,500	52,245	45,150	21,285	25,800	16,125	25,800
7001-8000	2136-2440	63,000	51,030	44,100	20,790	25,200	15,750	25,200
8001-9000	2441-2745	61,500	49,815	43,050	20,295	24,600	15,375	24,600
Feet	**Meters**	**Size 125**						
0-2000	0-610	125,000	101,250	87,500	41,250	50,000	31,250	50,000
2001-3000	611-915	117,500	95,175	82,250	38,775	47,000	29,375	47,000
3001-4000	916-1220	115,000	93,150	80,500	37,950	46,000	28,750	46,000
4001-5000	1221-1525	112,500	91,125	78,750	37,125	45,000	28,125	45,000
5001-6000	1526-1830	110,000	89,100	77,000	36,300	44,000	27,500	44,000
6001-7000	1831-2135	107,500	87,075	75,250	35,475	43,000	26,875	43,000
7001-8000	2136-2440	105,000	85,050	73,500	34,650	42,000	26,250	42,000
8001-9000	2441-2745	102,500	83,025	71,750	33,825	41,000	25,625	41,000
Feet	**Meters**	**Size 175**						
0-2000	0-610	175,000	141,750	122,500	57,750	70,000	43,750	70,000
2001-3000	611-915	164,500	133,245	115,150	54,285	65,800	41,125	65,800
3001-4000	916-1220	161,000	130,410	112,700	53,130	64,400	40,250	64,400
4001-5000	1221-1525	157,500	127,575	110,250	51,975	63,000	39,375	63,000
5001-6000	1526-1830	154,000	124,740	107,800	50,820	61,600	38,500	61,600
6001-7000	1831-2135	150,500	121,905	105,350	49,665	60,200	37,625	60,200
7001-8000	2136-2440	147,000	119,070	102,900	48,510	58,800	36,750	58,800
8001-9000	2441-2745	143,500	116,235	100,450	47,355	57,400	35,875	57,400
Feet	**Meters**	**Size 225**						
0-2000	0-610	225,000	182,250	157,500	74,250	90,000	56,250	90,000
2001-3000	611-915	211,500	171,315	148,050	69,795	84,600	52,875	84,600
3001-4000	916-1220	207,000	167,670	144,900	68,310	82,800	51,750	82,800
4001-5000	1221-1525	202,500	164,025	141,750	66,825	81,000	50,625	81,000
5001-6000	1526-1830	198,000	160,380	138,600	65,340	79,200	49,500	79,200
6001-7000	1831-2135	193,500	156,735	135,450	63,855	77,400	48,375	77,400
7001-8000	2136-2440	189,000	153,090	132,300	62,370	75,600	47,250	75,600
8001-9000	2441-2745	184,500	149,445	129,150	60,885	73,800	46,125	73,800
Feet	**Meters**	**Size 300**						
0-2000	0-610	300,000	243,000	210,000	99,000	120,000	75,000	120,000
2001-3000	611-915	282,000	228,420	197,400	93,060	112,800	70,500	112,800
3001-4000	916-1220	276,000	223,560	193,200	91,080	110,400	69,000	110,400
4001-5000	1221-1525	270,000	218,700	189,000	89,100	108,000	67,500	108,000
5001-6000	1526-1830	264,000	213,840	184,800	87,120	105,600	66,000	105,600
6001-7000	1831-2135	258,000	208,980	180,600	85,140	103,200	64,500	103,200
7001-8000	2136-2440	252,000	204,120	176,400	83,160	100,800	63,000	100,800
8001-9000	2441-2745	246,000	199,260	172,200	81,180	98,400	61,500	98,400
Feet	**Meters**	**Size 400A**						
0-2000	0-610	400,000	324,000	280,000	132,000	160,000	100,000	160,000
2001-3000	611-915	376,000	304,560	263,200	124,080	150,400	94,000	150,400
3001-4000	916-1220	368,000	298,080	257,600	121,440	147,200	92,000	147,200
4001-5000	1221-1525	360,000	291,600	252,000	118,800	144,000	90,000	144,000
5001-6000	1526-1830	352,000	285,120	246,400	116,160	140,800	88,000	140,800
6001-7000	1831-2135	344,000	278,640	240,800	113,520	137,600	86,000	137,600
7001-8000	2136-2440	336,000	272,160	235,200	110,880	134,400	84,000	134,400
8001-9000	2441-2745	328,000	265,680	229,600	108,240	131,200	82,000	131,200

Normal Input	Thermal Output Capacity	2-Stage Minimum Input (applies to AG2, AG3, AG15, AG16)	2-Stage with Venter Motor Controller Minimum Input (applies to AG60, AG61, AG62, DG1, DG5, D12A)		Modulation Minimum Input (applies to Options DG2, DG6, D12B)	
			Natural	Propane	Natural	Propane
Size 100						
100,000	81,000	70,000	33,000	40,000	25,000	40,000
94,000	76,140	65,800	31,020	37,600	23,500	37,600
92,000	74,520	64,400	30,360	36,800	23,000	36,800
90,000	72,900	63,000	29,700	36,000	22,500	36,000
88,000	71,280	61,600	29,040	35,200	22,000	35,200
86,000	69,660	60,200	28,380	34,400	21,500	34,400
84,000	68,040	58,800	27,720	33,600	21,000	33,600
82,000	66,420	57,400	27,060	32,800	20,500	32,800
Size 150						
150,000	121,500	105,000	49,500	60,000	37,500	60,000
141,000	114,210	98,700	46,530	56,400	35,250	56,400
138,000	111,780	96,600	45,540	55,200	34,500	55,200
135,000	109,350	94,500	44,550	54,000	33,750	54,000
132,000	106,920	92,400	43,560	52,800	33,000	52,800
129,000	104,490	90,300	42,570	51,600	32,250	51,600
126,000	102,060	88,200	41,580	50,400	31,500	50,400
123,000	99,630	86,100	40,590	49,200	30,750	49,200
Size 200						
200,000	162,000	140,000	66,000	80,000	50,000	80,000
188,000	152,280	131,600	62,040	75,200	47,000	75,200
184,000	149,040	128,800	60,720	73,600	46,000	73,600
180,000	145,800	126,000	59,400	72,000	45,000	72,000
176,000	142,560	123,200	58,080	70,400	44,000	70,400
172,000	139,320	120,400	56,760	68,800	43,000	68,800
168,000	136,080	117,600	55,440	67,200	42,000	67,200
164,000	132,840	114,800	54,120	65,600	41,000	65,600
Size 250						
250,000	202,500	175,000	82,500	100,000	62,500	100,000
235,000	190,350	164,500	77,550	94,000	58,750	94,000
230,000	186,300	161,000	75,900	92,000	57,500	92,000
225,000	182,250	157,500	74,250	90,000	56,250	90,000
220,000	178,200	154,000	72,600	88,000	55,000	88,000
215,000	174,150	150,500	70,950	86,000	53,750	86,000
210,000	170,100	147,000	69,300	84,000	52,500	84,000
205,000	166,050	143,500	67,650	82,000	51,250	82,000
Size 350						
350,000	283,500	245,000	115,500	140,000	87,500	140,000
329,000	266,490	230,300	108,570	131,600	82,250	131,600
322,000	260,820	225,400	106,260	128,800	80,500	128,800
315,000	255,150	220,500	103,950	126,000	78,750	126,000
308,000	249,480	215,600	101,640	123,200	77,000	123,200
301,000	243,810	210,700	99,330	120,400	75,250	120,400
294,000	238,140	205,800	97,020	117,600	73,500	117,600
287,000	232,470	200,900	94,710	114,800	71,750	114,800

REZNOR®

HIGH ALTITUDE CAPACITY CHANGES

Models PDH, RDH, SDH - Canadian Installations

BTUH Inputs and Capacities by Altitude in CANADA for Models PDH, RDH & SDH

ALTITUDE		Normal Input	Thermal Output Capacity	2-Stage Minimum Input (applies to AG2, AG3, AG15, AG16)	2-Stage with Venter Motor Controller Minimum Input (applies to AG60, AG61, AG62, DG1, DG5, D12A)		Modulation Minimum Input (applies to Options DG2, DG6, D12B)	
					Natural	Propane	Natural	Propane
Feet	**Meters**	**Size 75**						
0-2000	0-610	75,000	60,750	52,500	24,750	30,000	18,750	30,000
2001-4500	611-1373	67,500	54,675	47,250	22,275	27,000	16,875	27,000
Feet	**Meters**	**Size 125**						
0-2000	0-610	125,000	101,250	87,500	41,250	50,000	31,250	50,000
2001-4500	611-1373	112,500	91,125	78,750	37,125	45,000	28,125	45,000
Feet	**Meters**	**Size 175**						
0-2000	0-610	175,000	141,750	122,500	57,750	70,000	43,750	70,000
2001-4500	611-1373	157,500	127,575	110,250	51,975	63,000	39,375	63,000
Feet	**Meters**	**Size 225**						
0-2000	0-610	225,000	182,250	157,500	74,250	90,000	56,250	90,000
2001-4500	611-1373	202,500	164,025	141,750	66,825	81,000	50,625	81,000
Feet	**Meters**	**Size 300**						
0-2000	0-610	300,000	243,000	210,000	99,000	120,000	75,000	120,000
2001-4500	611-1373	270,000	218,700	189,000	89,100	108,000	67,500	108,000
Feet	**Meters**	**Size 400A**						
0-2000	0-610	400,000	324,000	280,000	132,000	160,000	100,000	160,000
2001-4500	611-1373	360,000	291,600	252,000	118,800	144,000	90,000	144,000

		Normal Input	Thermal Output Capacity	2-Stage Minimum Input (applies to AG2, AG3, AG15, AG16)	2-Stage with Venter Motor Controller Minimum Input (applies to AG60, AG61, AG62, DG1, DG5, D12A)		Modulation Minimum Input (applies to Options DG2, DG6, D12B)	
					Natural	Propane	Natural	Propane
Size 100								
100,000	81,000	70,000	33,000	40,000	25,000	40,000		
90,000	72,900	63,000	29,700	36,000	22,500	36,000		
Size 150								
150,000	121,500	105,000	49,500	60,000	37,500	60,000		
135,000	109,350	94,500	44,550	54,000	33,750	54,000		
Size 200								
200,000	162,000	140,000	66,000	80,000	50,000	80,000		
180,000	145,800	126,000	59,400	72,000	45,000	72,000		
Size 250								
250,000	202,500	175,000	82,500	100,000	62,500	100,000		
225,000	182,250	157,500	74,250	90,000	56,250	90,000		
Size 350								
350,000	283,500	245,000	115,500	140,000	87,500	140,000		
315,000	255,150	220,500	103,950	126,000	78,750	126,000		

HIGH ALTITUDE CAPACITY CHANGES

Model SHH

USA INPUTS & CAPACITIES BY ALTITUDE

ALTITUDE		130		180		260		350	
FEET	**METERS**	**NORMAL INPUT (BTU/ HR)**	**THERMAL OUTPUT CAPACITY (BTU/HR)**	**NORMAL INPUT (BTU/ HR)**	**THERMAL OUTPUT CAPACITY (BTU/HR)**	**NORMAL INPUT (BTU/ HR)**	**THERMAL OUTPUT CAPACITY (BTU/HR)**	**NORMAL INPUT (BTU/ HR)**	**THERMAL OUTPUT CAPACITY (BTU/HR)**
0 - 2000	0 - 610	131000	120520	175000	159250	260000	236600	345000	313950
2001 - 3000	611 - 915	123140	113289	164500	149695	244400	222404	324300	295113
3001 - 4000	916 - 1220	120520	110878	161000	146510	239200	217672	317400	288834
4001- 5000	1221 - 1525	117900	108468	157500	143325	234000	212940	310500	282555
5001 - 6000	1526 - 1830	115280	106058	154000	140140	228800	208208	303600	276276
6001 - 7000	1831 - 2135	112660	103647	150500	136955	223600	203476	296700	269997
7001 - 8000	2136 - 2440	110040	101237	147000	133770	218400	198744	289800	263718
8001 - 9000	2441 - 2745	107420	98826	143500	130585	213200	194012	282900	257439
9001 - 10000	2746 - 3045	104800	96416	140000	127400	208000	189280	276000	251160

CANADA INPUTS & CAPACITIES BY ALTITUDE

ALTITUDE		130		180		260		350	
FEET	**METERS**	**NORMAL INPUT (BTU/ HR)**	**THERMAL OUTPUT CAPACITY (BTU/HR)**	**NORMAL INPUT (BTU/ HR)**	**THERMAL OUTPUT CAPACITY (BTU/HR)**	**NORMAL INPUT (BTU/ HR)**	**THERMAL OUTPUT CAPACITY (BTU/HR)**	**NORMAL INPUT (BTU/ HR)**	**THERMAL OUTPUT CAPACITY (BTU/HR)**
0 - 2000	0 - 610	131000	120520	175000	159250	260000	236600	345000	313950
2001 - 4500	611 - 1373	117900	108468	157500	143325	234000	212940	310500	282555

REZNOR®

COOLING COIL MODULE WITH DX OR CHILLED WATER COIL

Description

PREEVA units have a wide selection of factory installed custom designed DX and Chilled Water coils tailor made to the application, from 100% outside air in severe climates to 100% return air in mild climates. Coil application is designed by Reznor Software such as RezQuote™ or RezPro® Toolbox. The performance data is in compliance with ARI Standard 410. Design/Performance Data Sheets are generated by the software or are available from your Reznor Representative by submitting the Request Form found later in this catalog.

The double wall insulated draw-through coil cabinet is factory assembled to the system blower cabinet. Both DX and Chilled Water Coil cabinets are available. Both sides of the cooling coil section have easily removable door panels for routine coil inspection and cleaning. The removable stainless steel drain pan has an exterior 1" NPT connection.

- Reznor Coil Selection Software is downloadable from www.RezSpec.com

Primary considerations are:

1) Sizing the PREEVA unit to meet both heating and cooling requirements.
2) Deciding on condenser capacity and staging.
3) Specifying cooling controls

Approximate cooling airflow ranges and capacity ranges (sea level at 45° suction and 45° chilled water) are shown in the DX and Chilled Water Performance Range Tables. Somewhat higher or lower capacities will result from changes in elevation, operating temperatures, flow rates, etc.

Cooling Coil Module Options

DX Coil and dH Coil Circuiting	Single Circuit
	50-50 Dual Circuit
	1/3 - 2/3 Split Circuit
Coil Casing	Galvanized Steel
	Stainless Steel
Refrigerant Options	R22, R134a, R407c, R410a
Filters	1", 2", or 4" Pleated
	1" Permanent
	1" Disposable
Coil Material	Copper Tube with Aluminum Fins
	Copper Tube with Copper Fins
Coil Coating	ElectroFin™ Polymeric Coating
Cabinet	Double wall w/ insulation
	Double wall with high desnity insulation

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

NOTE: To select the correct coil, you (or your Reznor Representative) must run the Reznor Coil Selection Software Program.

REZNOR®

COIL SELECTION SOFTWARE

The Reznor Coil Selection Software (DX selection, shown above) that is part of RezQuote™ and RezPro® Toolbox packages will optimally design heating and cooling coils for your specific application for all Reznor models utilizing custom coils.

Exact design and performance are shown on coil data sheets output by Reznor coil selection software. You may request or download a copy of the software or submit the coil request form (found at the end of this section on cooling) to your Reznor Representative, who can then provide you with a detailed coil run.

DX Coil Controls and Circuits

DX coils are available for one, two, or three stage operation. Two or three stage operation is generally recommended for makeup air, where the load on the coil may vary considerably. PREEVA digital control options DG5 and DG6 are ideally suited to sense makeup air discharge temperature and provide two or three stages of capacity, as required. Up to 3:1 cooling turndown makes hot gas bypass unnecessary or keeps hot gas bypass operation to a minimum.

Two stage DX cooling operation is accomplished by two equal capacity interlaced coil circuits for connection to a two stage condensing unit or two equal capacity single stage condensers. Three stage operation is accomplished by two unequal interlaced circuits, with approximately 1/3 of the coil tubes on the first circuit and 2/3 of the coil tubes on the second. Two condensing units of unequal capacity are used – one 5 ton and one 10 ton for example. The first circuit is connected to the smaller condenser and the second to the larger. The 3 stage digital cooling control system in the PREEVA will activate the first condenser on first stage. On second stage, the first condenser is deactivated and the larger second condenser is activated. On third stage, both condensers are activated. The three-stage digital cooling control (Option DG1, DG2, DG5, DG6, D12D or D12E) in the PREEVA actually makes 3 separate staging relays, so other logics are configurable. TXV's, liquid line solenoids, any desired hot gas bypass valves, and condensing units are provided by others. Alternate analog heating controls are available for cooling controls by others or heating/cooling by room thermostat only. Call your Reznor Representative for special requirements.

Coil Design – DX Coils

Individual coils are custom designed and internally circuited by Reznor coil selection/design software to optimize for the exact conditions specified. Variables are:

External Circuiting: Single (one stage), Dual 50-50 (2 stage), Dual 1/3-2/3 (3 stage)

Refrigerants: R22, R134a, R407c, or R410a

Rows: 2, 3, 4, or 6

Fins per Inch: 8, 10, 12, or 14

Tube OD: 1/2" (standard) or 3/8" (low load)

Fin Height: 20", 22.5", or 25" (75 to 150 sizes)
30", 32.5", or 35" (175 to 400A sizes)

Internal Circuiting: The number of internal coil circuits is thermodynamically optimized, but circuits may be increased to decrease refrigerant pressure drop or decreased to increase refrigerant velocity. Refrigerant velocity should be above 1000 fpm and refrigerant pressure drop should be less than 8 psi. When coil loads are light and refrigerant velocity would be less than 1100 fpm with 1/2" tube, 3/8" tube is used to improve refrigerant velocity . Note that higher refrigerant velocities are available with 20", 25", 30" and 35" height coils and lower refrigerant pressure drop with optimal thermodynamic efficiency are available with 22.5" and 32.5" height coils (due to internal circuiting). In general, preference is given to coils having the lowest air pressure drop, which favors taller fin heights.

Coil Design - Chilled Water Coils

Individual coils are custom designed and internally circuited by Reznor coil selection/design software to optimize for the exact conditions specified. Variables are:

Refrigerants: Water, Ethylene Glycol(%), or Propylene Glycol(%)

Rows: 4 or 6

Fins per Inch: 6, 8, 10, 12, or 14

Tube OD: 1/2

Fin Height: 25" (75 to 150 sizes) or 35" (175 to 400A sizes)

Internal Circuiting: Quarter, Half, Three Quarter, or Single serpentine

Quarter circuit coils are used for low flow rates and have high pressure drops. Full circuit coils are for high flow rates and have low pressure drops. Half and Three Quarter circuit coils are in between. The best circuiting for a given application can be optimized based on flow rate, pressure drop and output requirements.

Chilled water coil performance is significantly diminished by glycol, higher percentages causing lower performance. The unit size/coil face may have to be increased to achieve adequate cooling performance with glycol in some cases. See approximate derates in the table below:

Chilled Water Coil Output Derate (from pure water) for Glycol						
Glycol Type	% Glycol by Wt	12%	20%	28%	36%	40%
Ethylene	Derate	**2.7%**	**4.2%**	**6.4%**	**10.1%**	**11.7%**
	Freezing Point ºF	24.7	17.9	9.2	-1.5	-8.1
Propylene	Derate	**3.9%**	**7.0%**	**13.6%**	**22.9%**	**28.2%**
	Freezing Point ºF	24.9	19.2	2.2	0.8	-6.0

REZNOR®

R410 DX & CHILLED WATER PERFORMANCE TABLES

DX Coil Performance Range Table R-410a @ 45º F Sat Suction, Sea Level

PreevA Cabinet Size	Gas Unit Size	Model SHH	Entering Air DB/ WB ºF	Fin Height (in.)	Cooling Airflow (scfm)	Face Vel (sfpm)	2 Row, 8 Fin (minimum)				6 Row, 14 Fin (maximum)			
							Total/Sens MBH	Leaving DB/WB ºF	APD (in. WC)	Coil Wt (lbs)	Total/Sens MBH	Leaving DB/WB ºF	APD (in. WC)	Coil Wt (lbs)
A	75, 100	-	80/67	20	833	250	19 / 14	64.6 / 60.4	0.06	36	39 / 26	51.2 / 51.2	0.32	73
				25	2083	500	30 / 26	68.5 / 62.9	0.20	42	88 / 60	53.4 / 53.4	0.74	93
B	125, 150	-	80/67	20	1181	250	25 / 19	64.9 / 60.6	0.06	43	60 / 39	49.7 / 49.7	0.25	100
				25	2951	500	40 / 36	68.7 / 63.0	0.19	51	121 / 84	53.8 / 53.8	0.74	120
C	175, 200, 225	130C, 180C	80/67	30	1250	250	28 / 21	64.6 / 60.4	0.06	53	59 / 39	51.2 / 51.2	0.32	102
				35	2917	500	43 / 37	68.4 / 62.7	0.20	56	123 / 84	53.4 / 53.4	0.74	124
D	250, 300	260D	80/67	30	2096	250	45 / 34	64.9 / 60.6	0.06	64	105 / 68	50.0 / 50.0	0.25	160
				35	4892	500	71 / 61	68.4 / 62.8	0.20	72	206 / 141	53.4 / 53.4	0.74	182
E	350, 400A	350E	80/67	30	2513	250	56 / 42	64.6 / 60.3	0.06	72	123 / 80	50.6 / 50.6	0.32	172
				35	5864	500	89 / 75	68.2 / 62.6	0.20	81	253 / 171	53.0 / 53.0	0.74	211
PreevA Cabinet Size	Gas Unit Size	Model SHH	Entering Air DB/ WB ºF	Fin Height (in.)	Cooling Airflow (scfm)	Face Vel (sfpm)	2 Row, 8 Fin (minimum)				6 Row, 14 Fin (maximum)			
							Total/Sens MBH	Leaving DB/WB ºF	APD (in. WC)	Coil Wt (lbs)	Total/Sens MBH	Leaving DB/WB ºF	APD (in. WC)	Coil Wt (lbs)
A	75, 100	-	95/75	20	833	250	41 / 28	72.7 / 66.1	0.06	43	65 / 40	51.1 / 51.1	0.25	77
				25	2083	500	46 / 38	78.2 / 69.5	0.20	42	135 / 87	56.5 / 56.5	0.74	93
B	125, 150	-	95/75	20	1181	250	40 / 28	72.9 / 66.3	0.06	43	89 / 55	52.2 / 52.2	0.32	94
				25	2951	500	68 / 54	77.9 / 69.3	0.20	51	194 / 124	56.2 / 56.1	0.74	120
C	175, 200, 225	-	95/75	30	1250	250	41 / 30	73.1 / 66.5	0.06	49	98 / 59	51.1 / 51.1	0.25	109
				35	2917	500	64 / 53	78.2 / 69.5	0.20	56	189 / 121	56.5 / 56.5	0.74	124
D	250, 300	-	95/75	30	2096	250	73 / 51	72.5 / 65.9	0.06	64	158 / 97	52.4 / 52.4	0.32	149
				35	4892	500	118 / 89	78.2 / 68.9	0.17	76	327 / 208	55.7 / 55.7	0.74	182
E	350, 400A	-	95/75	30	2513	250	90 / 61	72.7 / 65.6	0.05	76	200 / 120	50.6 / 50.6	0.25	185
				35	5864	500	148 / 108	78.0 / 68.6	0.17	85	392 / 249	55.7 / 55.7	0.74	211

Note: Coils designed in the RezPro Coil Designer are optimized (fin height, tube diameter, circuiting, fin type, refrigerant velocity & PD) for specific conditions and condenser circuit capacities. Above selections are based on 45 ºF SST, 100 ºF liquid line temp, 8 ºF superheat. Coil weights vary depending upon specific circuiting and coil design.

Chilled Water Coil Performance Range Table, 45º Water, Sea Level (no glycol)

PreevA Unit Size	Model SHH	Entering Air WB/ DB ºF	Fin Height (in.)	Cooling Airflow (scfm)	Face Vel (sfpm)	4 Row, 6 Fin (minimum)						6 Row, 14 Fin (maximum)					
						Total/ Sens MBH	Leaving WB/DB ºF	APD (in. WC)	LWT ºF	Dry Wt (lbs)	Fluid Wt (lbs)	Total/ Sens MBH	Leaving WB/DB ºF	APD (in. WC)	LWT ºF	Dry Wt (lbs)	Fluid Wt (lbs)
75, 100	-	80/67	25	1042	250	35 / 24	59.3 / 56.4	0.09	53.3	62	82	48 / 32	51.7 / 51.6	0.25	56.6	93	121
				2083	500	54 / 38	63.1 / 59.1	0.28	51.4	62	82	88 / 60	53.5 / 53.3	0.74	55.5	93	121
125, 150	-	80/67	25	1476	250	51 / 34	59.0 / 56.1	0.09	53.6	78	103	65 / 44	52.6 / 52.5	0.25	56.0	120	157
				2951	500	79 / 56	62.7 / 58.7	0.28	51.7	78	103	130 / 88	52.7 / 52.6	0.74	56.0	120	157
175, 200, 225	130C, 180C	80/67	35	1458	250	49 / 33	59.3 / 56.4	0.09	53.3	82	110	67 / 45	51.7 / 51.6	0.25	56.6	124	164
				2917	500	75 / 54	63.1 / 59.1	0.28	51.4	82	110	123 / 85	53.5 / 53.3	0.74	55.5	124	164
250, 300	260D	80/67	35	2446	250	80 / 55	59.5 / 56.6	0.09	53.2	114	155	110 / 75	52.1 / 52.1	0.25	56.3	182	241
				4892	500	133 / 93	62.6 / 58.6	0.28	51.8	114	155	218 / 147	52.5 / 52.3	0.74	56.1	182	242
350, 400A	350E	80/67	35	2932	250	98 / 66	59.3 / 56.4	0.09	53.3	130	178	136 / 91	51.7 / 51.6	0.25	56.6	211	280
				5864	500	162 / 113	62.4 / 58.4	0.28	51.9	130	178	256 / 174	52.8 / 52.7	0.74	55.9	211	280
PreevA Unit Size	Model SHH	Entering Air ºF WB/DB	Fin Height (in.)	Cooling Airflow (scfm)	Face Vel (sfpm)	4 Row, 6 Fin (minimum)						6 Row, 14 Fin (maximum)					
						Total/ Sens MBH	Leaving WB/DB ºF	APD (in. WC)	LWT ºF	Dry Wt (lbs)	Fluid Wt (lbs)	Total/ Sens MBH	Leaving WB/DB ºF	APD (in. WC)	LWT ºF	Dry Wt (lbs)	Fluid Wt (lbs)
75, 100	-	95/75	25	1042	250	57 / 36	63.7 / 59.7	0.09	52.7	62	82	74 / 47	54.0 / 53.8	0.25	55.1	93	121
				2083	500	89 / 58	69.5 / 63.6	0.28	51.0	62	82	148 / 93	54.4 / 54.1	0.74	55.0	93	121
125, 150	-	95/75	25	1476	250	79 / 50	64.2 / 60.1	0.09	52.5	78	103	118 / 72	50.7 / 50.5	0.25	56.3	120	157
				2951	500	124 / 82	69.6 / 63.7	0.28	50.9	78	103	208 / 131	54.5 / 54.3	0.74	54.9	120	157
175, 200, 225	-	95/75	35	1458	250	80 / 50	63.7 / 59.7	0.09	52.7	82	110	104 / 65	54.0 / 53.8	0.25	55.1	124	163
				2917	500	124 / 81	69.5 / 63.6	0.28	51.0	82	110	207 / 130	54.4 / 54.1	0.74	55.0	124	164
250, 300	-	95/75	35	2446	250	133 / 83	63.9 / 59.9	0.09	52.6	114	155	178 / 111	53.5 / 53.4	0.25	55.2	182	245
				4892	500	211 / 137	69.4 / 63.4	0.28	51.1	114	155	339 / 215	54.9 / 54.6	0.74	54.8	182	241
350, 400A	-	95/75	35	2932	250	162 / 100	63.7 / 59.6	0.09	52.8	130	178	219 / 135	52.8 / 52.7	0.25	55.5	211	284
				5864	500	250 / 164	69.5 / 63.6	0.28	51.0	130	177	396 / 253	55.6 / 55.3	0.74	54.5	211	284

Note: Some variation in capacity is possible by varying circuiting (Quarter, Half, Three-Quarter, and Single serpentine available), Flow Rate and Fluid Pressure Drop. Values shown represent a requested fluid temp rise of 10 ºF with a requested max fluid PD of 18 ft WC. All circuit types are represented.

[A] Actual Main Coil Capacity and Total System Cooling MBH will depend upon design of main coil and condenser selected. It is not feasible to achieve an exact main coil temperature or system discharge temperature - condenser used will either be smaller or larger than requested capacity. The goal of neutral air and the neutral air control system is to provide outside air to the space at a temperature and humidity ratio that will allow a conventional cooling system for the space to maintain precise conditions regardless of outside air condition.

[B] Wet bulb temperature (essentially enthalpy) is by far the primary determinant of system performance at a given SCFM. Entering dry bulb and main coil condenser ambient have a much less dramatic effect. A system operating at 100/74 can be conservatively estimated at 95/75.

REZNOR®

REHEAT PUMP (RHP) PERFORMANCE

Applies to Models PDH, PEH, RDH, REH and SDH

Performance Range Table R-410a at Sea Level

PreevA Cab Size	RHP Nom Tons	Cooling Airflow (scfm)	Face Vel SFPM	Main Coil Fin Height (in.)	95/77 °F Entering Air, LAT 55/55 °F Main Coil							95/77 °F Entering Air, LAT 51/51 °F Main Coil						
					LAT Precool Coil		Main Coil Capacity	Leaving Reheat Coil		Total Cooling MBH[A]	Reheat MBH	LAT Precool Coil		Main Coil Capacity	Leaving Reheat Coil		Total Cooling MBH[A]	Reheat MBH
					DB °F	WB °F	MBH	DB °F	WB °F			DB °F	WB °F	MBH	DB °F	WB °F		
A	2	1000	300	20	80.5	71.0	51.1	85.0	65.8	76.3	32.3	80.3	70.9	61.2	81.2	62.7	86.9	32.4
		1667	400	25	84.4	73.0	98.0	74.4	62.3	126.5	34.7	84.2	72.9	115.2	70.5	58.8	144.2	34.9
		2083	500	25	85.6	73.7	128.1	71.0	61.1	158.0	35.8	85.6	73.6	149.8	67.1	57.6	180.2	36.1
B	2.5	1417	300	20	82.5	71.4	74.6	80.6	64.4	106.6	38.9	82.5	71.4	89.4	76.7	61.1	121.9	39.1
		2361	400	25	86.4	73.5	143.7	71.4	61.2	179.0	41.5	86.2	73.5	168.3	67.5	57.7	204.1	41.8
		2951	500	25	87.6	74.2	187.1	68.4	60.1	223.7	42.6	87.5	74.0	216.7	64.5	56.6	253.8	42.8
C	2.5	1500	300	30	77.9	70.6	74.4	82.9	65.1	113.2	44.8	77.8	70.5	89.8	79.0	61.9	129.3	45.2
		2333	400	35	82.0	72.8	135.3	73.9	62.1	177.2	47.3	81.9	72.7	159.5	70.0	58.7	202.1	47.7
		2917	500	35	83.5	73.5	177.0	70.5	60.9	220.3	48.5	83.5	73.4	207.3	66.6	57.4	251.4	48.9
D	5	2516	300	30	79.3	70.4	123.2	84.7	65.7	190.0	80.2	79.1	70.3	148.4	80.8	62.6	216.2	80.6
		3913	400	35	83.3	72.6	223.8	75.2	62.5	296.9	84.9	83.2	72.5	264.3	71.3	59.2	338.5	85.5
		4891	500	35	84.8	73.4	295.2	71.6	61.3	371.1	87.1	84.8	73.3	346.0	67.7	57.8	423.1	87.7
E	5	3016	300	30	77.0	70.6	149.5	83.1	65.2	229.2	91.1	76.9	70.5	180.3	79.3	62.0	261.3	91.8
		4691	400	35	81.2	72.7	271.1	74.0	62.1	356.6	95.7	81.2	72.7	319.7	70.2	58.7	406.5	96.5
		5864	500	35	82.8	73.4	355.1	70.6	60.9	443.2	97.9	82.8	73.4	416.1	66.7	57.4	505.6	98.8

PreevA Cab Size	RHP Nom Tons	Cooling Airflow (scfm)	Face Vel SFPM	Main Coil Fin Height (in.)	95/75 °F Entering Air, LAT 55/55 °F Main Coil							95/75 °F Entering Air, LAT 51/51 °F Main Coil						
					LAT Precool Coil		Main Coil Capacity	Leaving Reheat Coil		Total Cooling MBH[A]	Reheat MBH	LAT Precool Coil		Main Coil Capacity	Leaving Reheat Coil		Total Cooling MBH[A]	Reheat MBH
					DB °F	WB °F	MBH	DB °F	WB °F			DB °F	WB °F	MBH	DB °F	WB °F		
A	2	1000	300	20	79.5	68.9	43.1	84.3	65.6	67.7	31.4	79.3	68.8	53.2	80.4	62.4	78.3	31.6
		1667	400	25	83.6	70.9	84.4	73.9	62.1	112.1	33.8	83.5	70.9	101.6	70.0	58.7	129.8	34.0
		2083	500	25	84.9	71.6	111.0	70.6	60.9	140.1	34.9	84.8	71.6	132.6	66.7	57.4	162.2	35.1
B	2.5	1417	300	20	81.9	69.5	64.1	80.0	64.2	95.2	38.0	81.8	69.4	78.7	76.0	60.9	110.3	38.1
		2361	400	25	85.8	71.5	124.4	71.0	61.1	158.6	40.5	85.7	71.4	148.9	67.0	57.5	183.7	40.7
		2951	500	25	87.1	72.1	162.7	68.1	60.0	198.2	41.5	87.0	72.0	192.3	64.2	56.4	228.3	41.7
C	2.5	1500	300	30	76.7	68.6	63.2	82.2	64.9	101.1	43.8	76.6	68.5	78.6	78.3	61.7	117.0	44.1
		2333	400	35	81.0	70.7	116.4	73.4	61.9	157.2	46.1	80.9	70.6	140.5	69.5	58.5	182.0	46.5
		2917	500	35	82.6	71.4	153.0	70.1	60.8	195.3	47.3	82.6	71.4	183.4	66.3	57.3	226.4	47.8
D	5	2516	300	30	78.3	68.4	104.2	84.0	65.5	169.3	78.3	78.2	68.3	129.9	80.1	62.3	196.0	78.7
		3913	400	35	82.4	70.5	192.1	74.7	62.4	263.3	82.8	82.3	70.5	232.6	70.8	59.0	304.8	83.4
		4891	500	35	84.1	71.3	255.1	71.2	61.1	329.0	85.0	84.0	71.3	305.9	67.3	57.6	380.9	85.6
E	5	3016	300	30	75.7	68.5	125.8	82.4	65.0	203.4	88.8	75.5	68.4	156.6	78.6	61.8	235.4	89.5
		4691	400	35	80.1	70.6	233.1	73.6	62.0	316.4	93.4	80.1	70.6	281.5	69.7	58.5	366.1	94.2
		5864	500	35	82.0	71.3	306.6	70.3	60.8	392.9	96.0	81.9	71.3	367.5	66.4	57.3	455.1	96.8

PreevA Cab Size	RHP Nom Tons	Cooling Airflow (scfm)	Face Vel SFPM	Fin Height (in.)	95/72 °F Entering Air, LAT 55/55 °F Main Coil							95/72 °F Entering Air, LAT 51/51 °F Main Coil						
					LAT Precool Coil		Main Coil Capacity	Leaving Reheat Coil		Total Cooling MBH[A]	Reheat MBH	LAT Precool Coil		Main Coil Capacity	Leaving Reheat Coil		Total Cooling MBH[A]	Reheat MBH
					DB °F	WB °F	MBH	DB °F	WB °F			DB °F	WB °F	MBH	DB °F	WB °F		
A	2	1000	300	20	78.0	65.7	31.9	83.1	65.2	55.5	30.2	77.8	65.6	42.1	79.2	62.0	66.1	30.3
		1667	400	25	82.4	67.8	65.3	73.1	61.8	91.9	32.4	82.3	67.7	82.4	69.2	58.4	109.5	32.6
		2083	500	25	83.9	68.6	87.6	70.0	60.7	115.5	33.5	83.7	68.5	108.4	66.1	57.2	136.8	33.7
B	2.5	1417	300	20	80.8	66.3	48.2	79.0	63.9	78.0	36.5	80.7	66.3	63.0	75.1	60.5	93.3	36.7
		2361	400	25	84.9	68.4	97.1	70.4	60.8	129.9	38.9	84.8	68.3	121.5	66.4	57.3	154.8	39.1
		2951	500	25	86.3	69.0	128.3	67.6	59.8	162.3	39.9	86.3	69.0	159.0	63.7	56.2	193.5	40.1
C	2.5	1500	300	30	74.9	65.4	46.6	81.2	64.6	82.9	42.2	74.8	65.3	61.9	77.3	61.3	98.8	42.4
		2333	400	35	79.7	67.5	89.3	72.9	61.7	128.8	44.8	79.6	67.5	113.4	69.0	58.3	153.5	45.1
		2917	500	35	82.0	68.1	117.8	69.9	60.7	159.3	46.6	81.8	68.1	148.1	66.0	57.1	190.2	46.9
D	5	2516	300	30	76.8	65.2	76.3	83.0	65.2	138.8	75.5	76.7	65.1	102.0	79.1	61.9	165.4	75.8
		3913	400	35	81.1	67.4	147.5	74.0	62.1	215.7	79.8	81.1	67.3	187.8	70.1	58.7	257.1	80.3
		4891	500	35	83.0	68.2	198.6	70.5	60.9	198.6	81.3	82.8	68.1	248.1	66.6	57.4	320.0	82.2
E	5	3016	300	30	73.7	65.2	92.1	81.5	64.7	166.9	85.9	73.6	65.2	122.9	77.7	61.5	198.8	86.5
		4691	400	35	78.8	67.4	176.7	71.4	61.2	258.3	91.5	79.0	67.4	226.2	69.3	58.4	308.8	92.2
		5864	500	35	81.7	68.1	234.9	70.3	60.9	320.5	95.3	81.5	68.0	295.5	66.2	57.2	382.3	95.9

[A] Actual Main Coil Capacity and Total System Cooling MBH will depend upon design of main coil and condenser selected. It is not feasible to achieve an exact main coil temperature or system discharge temperature - condenser used will either be smaller or larger than requested capacity. The goal of neutral air and the neutral air control system is to provide outside air to the space at a temperature and humidity ratio that will allow a conventional cooling system for the space to maintain precise conditions regardless of outside air condition.

[B] Wet bulb temperature (essentially enthalpy) is by far the primary determinant of system performance at a given SCFM. Entering dry bulb and main coil condenser ambient have a much less dramatic effect. A system operating at 100/74 can be conservatively estimated at 95/75.

REZNOR®

COOLING COIL MODULE WITH REHEAT OPTION

PREEVA^{dH} DX Coil option (AU7L & AU7R) are specifically designed for conditioning 100% outside or mixed air (outside and return air).

Reheat Application Overview:

In conventional systems, dehumidification occurs by chilling the air below a desired dewpoint. This typically means a 55°F dry bulb leaving coil temperature (50% Rh at 75°F). Because conventional systems limit the outside air to less than 25%, it is not necessary to continuously dehumidify the air. The 25% OA limit allows the conventional system to dehumidify the space air such that it rarely exceeds normal indoor expectations. If you allow a conventional return air unit to treat 100% outside, the following happens. The zone temperature will reach the desired space setpoint and then deactive the DX cooling. This in turns allows 100% untreated hot and moist outside air to enter the zone, thus increasing the space temperature and humidity. Over time, the zone will reach the desired temperature setpoint but will have a dewpoint greater than 60-70°F depending on the climate. A room with a 75°F temperature setpoint at 70°F dewpoint, results in a space relative humidity of 84%! This is uncomfortable as well as a perfect environment for growing mold. The high SHR of conventional systems does not remove enough moisture.

Reheat option not available on Model SHH.

100% outside air entering a non process environment should consider dehumidification depending on the climate. To prevent the space from over cooling, the AU7 option reheats the leaving air from the main evaporator to 70-75°F, thus providing Neutral air to the zone. The neutral air essentially has zero effect on the space conditions, thus preventing over cooling. If required the dehumidification system can be turned off thus allowing 55°F to enter the space for space cooling requirements. (Unit must be sized correctly to allow 55°F from the main evaporator when the reheat system is turned off.)

Specifying the quanity (reheat availability under all load conditions), control of reheat (staged or modulating) and selection of the appropriate reheat system requires a working knowledge of the refrigeration cycle and HVAC system design. Considerations for the reheat system typically fall into three application types:

Constant Reheat - Applied where the space sensible and latent loads are small in comparison to the outside air load. When the outside air load dominates the space load, a neutral air (continuous dehumidified air delivered between 70° and 75°F) approach may be preferred. Typical applications include corridors and locker rooms.

Variable Reheat - Applied where the space sensible or latent loads vary in comparison to the outside air loads. Variable sensible heat gains (solar, electric loads, occupancy etc.) affect the amount of reheat required to maintain space temperature and relative humidity. If the equipment treats both outside air and maintains space temperature (a sole source unit), a variable reheat system will be required. Typical examples include surgical rooms and “clean” rooms.

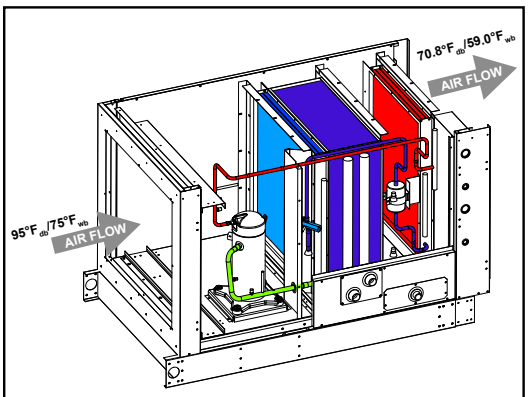
No Reheat - Applied where the space sensible load is constant and much greater than the outside air load. Typical examples include motor and telecommunications centers where cooling is required at all times.

Dehumidification Module Description:

The **dH DX Coil modules** are only applicable in climates where dehumidification is required. Typically, this represents geographical areas that see a 60°F dewpoint frequency greater than 400 hours per year. To illustrate the performance, compare the performance of a cooling-only model to the cooling/dehumidifying model.

The dehumidification unit Re-Heat Pump™ system uses a basic heat pump refrigeration circuit for dehumidification and reheat. Evaporator capacity is a small part (approximately 15-20%) of the total design capacity, allowing continuous operation at low loads (between 55 and 60°F ambient dewpoint). The reheat pump system precooling evaporator coil is installed upstream of the main evaporator coil, and the reheat pump condenser coil is in the downstream position. The upstream precool coil tempers outside air and lowers wet bulb depression of the air entering the main evaporator coil (86.4/75.3). Heat removed from the precool coil is rejected to the downstream reheat coil (71.2/61.5 including compressor heat of compression). In this mode of operation the system is configured as a stand-alone neutral air unit which conditions only the outside air to the building. If the main evaporator coil were removed, the refrigeration system would resemble a standard residential dehumidifier.

Since the dehumidification unit refrigeration circuit is independent of the main evaporative cooling coil, performance is relatively constant. **This translates into ease of commissioning and verification of the Re-Heat Pump™ system performance under mild or extreme conditions.** Other package systems that use hot gas reheat must maintain higher than needed condenser head pressures for reliable operation and adequate reheat. Under low load conditions, poor performance of hot gas reheat and subcooling reheat systems can be caused by compressor unloading and oil return issues. These system often require low ambient run kits to be installed for proper operation. Service, diagnosis, and performance of hot gas reheat systems can be difficult to verify at conditions other than design.



PREEVA^{dH} Coil Module

The Re-Heat Pump™ downstream reheat (condenser) coil provides a nominal 10 to 17 degrees of “reheat” to the supply airstream. This temperature rise is accomplished with high compressor COP’s and low air pressure drop coils. **For equivalent reheat performance, other technologies, such as heat pipes or flat plate heat exchangers may have greater than ten times the air pressure drop of the Re-Heat Pump™ coils.**

Additionally, performance of the heat pump is independent of the main cooling coil, while wrap around heat pipes or flat plate heat exchangers require an active cooling coil for energy transfer. At part load, the reheat pump can operate in a stand alone mode to provide both dehumidification and reheat.

While the dehumidification unit compressor consumes additional energy during dehumidification modes, the year round benefit of reduced fan energy will result in lower annual energy costs.

REZNOR®

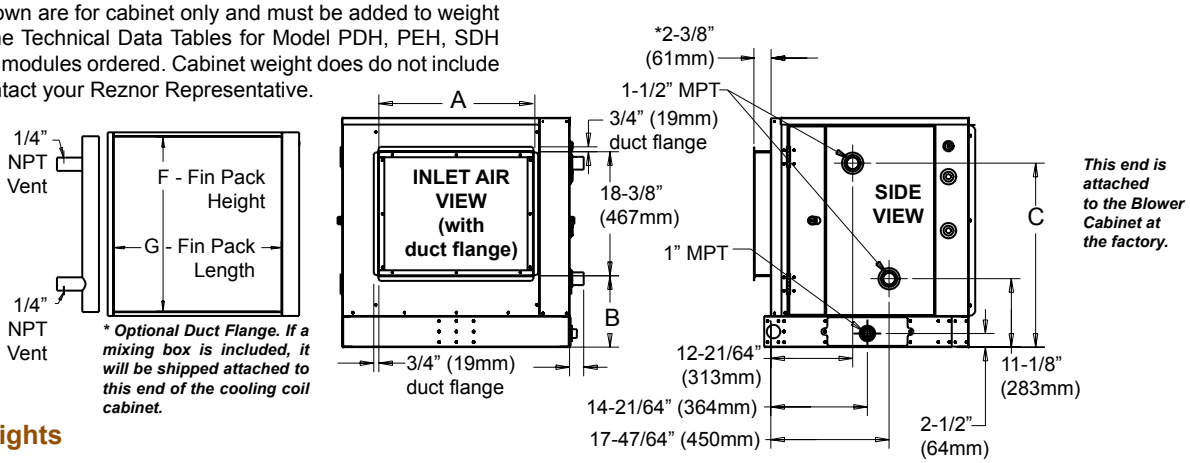
COOLING COIL MODULE

Dimensions and Weights

Draw-Through Cooling Coil Module for Chilled Water Coil - Applies to Models PDH, PEH, SDH and SHH Only

	Model PDH or SDH	Model SHH	Cabinet Dimensions			Coil Dimensions				Net Weight
			A	B	C	F	G	Max Face Area	Max Air Flow at 500 FPM	
PEH Cabinet Size	Dimensions inches							sq. ft.	CFM	lbs
A	75, 100	N/A	22 7/8	11 1/8	30 3/4	25	24	4.17	2,085	497
B	125, 150	N/A	26 1/2	11 1/8	30 3/4	25	34	5.90	2,950	560
C	175, 200, 225	130C, 180C	22 7/8	15 3/4	40 1/2	35	24	5.83	2,915	569
D	250, 300	260D	34 3/4	15 3/4	40 1/2	35	40 1/4	9.78	4,890	687
E	350, 400A	350E	45 3/4	15 3/4	40 1/2	35	48 1/4	11.73	5,865	751
	Dimensions (mm)							(sq. M)	(M^3/hr)	kg
A	75, 100	N/A	(581)	(283)	(781)	(635)	(610)	(0.39)	(3,542)	(225)
B	125, 150	N/A	(673)	(283)	(781)	(635)	(864)	(0.55)	(5,012)	(254)
C	175, 200, 225	130C, 180C	(581)	(400)	(1,029)	(889)	(610)	(0.54)	(4,953)	(258)
D	250, 300	260D	(883)	(400)	(1,029)	(889)	(1,022)	(0.91)	(8,308)	(312)
E	350, 400A	350E	(1,164)	(400)	(1,029)	(889)	(1,226)	(1.09)	(9,965)	(341)

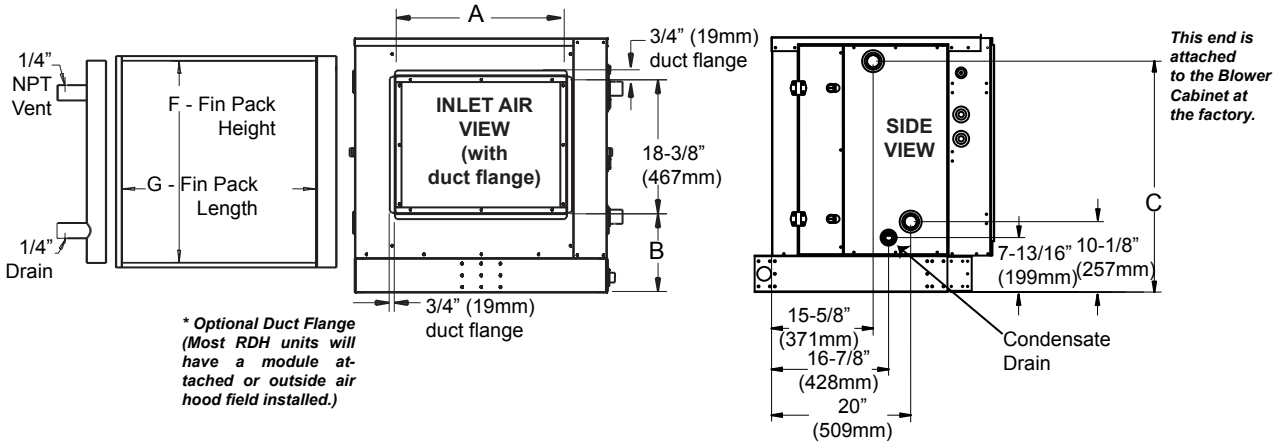
- Coil Cabinet weights shown are for cabinet only and must be added to weight of base unit (found in the Technical Data Tables for Model PDH, PEH, SDH and SHH) and any other modules ordered. Cabinet weight does do not include coil. For coil weights contact your Reznor Representative.



Dimensions and Weights

Draw-Through Cooling Coil Module for Chilled Water Coil - Applies to Models RDH and REH Only

REH Cabinet Size	RDH Size	Chilled Water Cabinet Dimension			Coil Dimension		Max Face Area	Max Air Flow at 500 FPM	Net Weight
Inches		A	B	C	F	G	sq. ft.	CFM	lbs
A	75, 100	22 7/8	11 1/8	33 1/4	25	24	4.17	2,085	497
B	125, 150	26 1/2	11 1/8	33 1/4	25	34	5.90	2,950	560
N/A	175, 200, 225	22 7/8	15 3/4	42 1/2	35	24	5.83	2,915	569
D	250, 300	34 3/4	15 3/4	42 1/2	35	40 1/4	9.78	4,890	687
E	350, 400A	45 3/4	15 3/4	42 1/2	35	48 1/4	11.73	5,865	751
(mm)		A	B	C	F	G	(sq. M)	(M^3/hr)	kg
A	75, 100	(581)	(283)	(844)	(635)	(610)	(0.39)	(3,542)	(225)
B	125, 150	(673)	(283)	(844)	(635)	(864)	(0.55)	(5,012)	(254)
N/A	175, 200, 225	(581)	(400)	(1,079)	(889)	(610)	(0.54)	(4,953)	(258)
D	250, 300	(883)	(400)	(1,079)	(889)	(1,022)	(0.91)	(8,308)	(312)
E	350, 400A	(1,164)	(400)	(1,079)	(889)	(1,226)	(1.09)	(9,965)	(341)



- Coil Cabinet weights shown are for cabinet only and must be added to weight of base unit (found in the Technical Data Tables for Model RDH and REH) and any other modules ordered. Cabinet weight does do not include coil. For coil weights contact your Reznor Representative.

REZNOR®

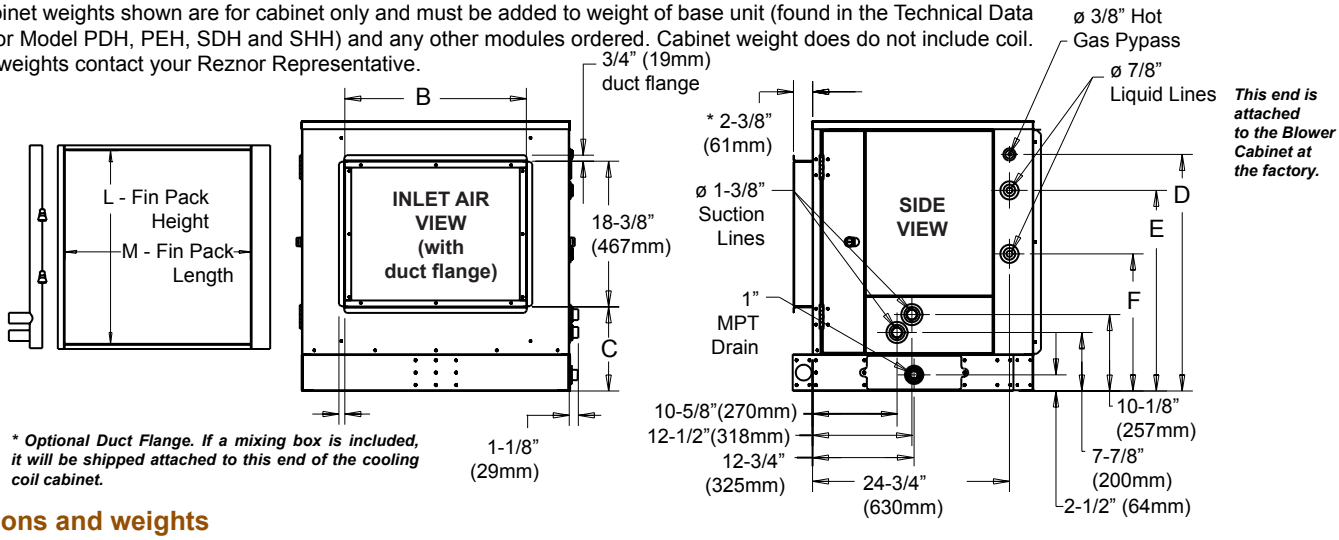
COOLING COIL MODULE

Dimensions and Weights

Draw-Through Cooling Coil Module for DX Coil - Applies to Models PDH, PEH, SDH and SHH Only

PEH Cabinet Size	Model PDH/ SDH	Model SHH	Cabinet Dimensions					Coil Dimensions		Max Face Area	Max Air Flow at 500 FPM	Net Weight
Inches			B	C	D	E	F	L	M	sq. ft.	CFM	lbs
A	75, 100	N/A	22 7/8	11 1/16	30 5/16	25 3/4	17 13/16	25	24	4.17	2,085	146
B	125, 150	N/A	22 7/8	11 1/16	30 5/16	25 3/4	17 13/16	25	34	5.90	2,950	166
C	175, 200, 225	130C, 180C	22 7/8	11 1/16	30 5/16	25 3/4	17 13/16	35	24	5.83	2,915	166
D	250, 300	260D	34 3/4	15 3/4	34 15/16	30 7/16	22 3/8	35	40 1/4	9.78	4,890	201
E	350, 400A	350E	54 3/4	15 3/4	34 15/16	30 7/16	22 3/8	35	48 1/4	11.73	5,865	219
mm			B	C	D	E	F	L	M	(sq. M)	(M^3/hr)	kg
A	75, 100	N/A	(581)	(281)	(770)	(654)	(452)	(635)	(610)	(0.39)	(3,542)	(66)
B	125, 150	N/A	(581)	(281)	(770)	(654)	(452)	(635)	(864)	(0.55)	(5,012)	(75)
C	175, 200, 225	130C, 180C	(581)	(281)	(770)	(654)	(452)	(889)	(610)	(0.54)	(4,953)	(75)
D	250, 300	260D	(883)	(400)	(887)	(773)	(568)	(889)	(1,022)	(0.91)	(8,308)	(91)
E	350, 400A	350E	(1,391)	(400)	(887)	(773)	(568)	(889)	(1,226)	(1.09)	(9,965)	(99)

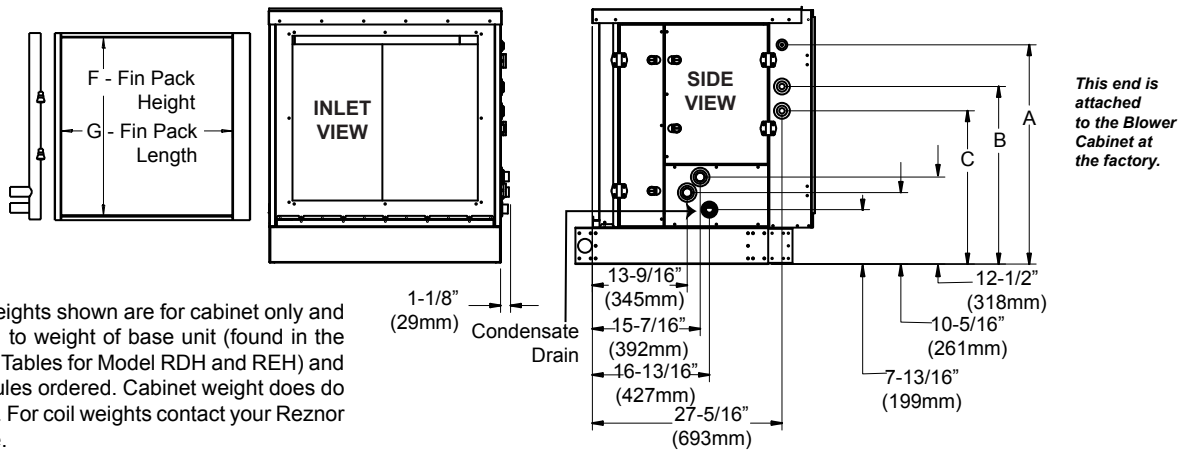
- Coil Cabinet weights shown are for cabinet only and must be added to weight of base unit (found in the Technical Data Tables for Model PDH, PEH, SDH and SHH) and any other modules ordered. Cabinet weight does do not include coil. For coil weights contact your Reznor Representative.



Dimensions and weights

Draw-Through Cooling Coil Module for DX Coil - Applies to Models RDH and REH Only

REH Cabinet Size	RDH Size	DX Cabinet Dimensions			Coil Dimensions		Max Face Area	Max Air Flow at 500 FPM	Net Weight
Inches		A	B	C	F	G	sq. ft.	CFM	lbs
A	75, 100	31 9/16	25 9/16	22 1/16	25	24	4.17	2,085	497
B	125, 150	31 9/16	25 9/16	22 1/16	25	34	5.90	2,950	560
N/A	175, 200, 225	40 13/16	34 13/16	23 5/16	35	24	5.83	2,915	569
D	250, 300	40 13/16	34 13/16	23 5/16	35	40 1/4	9.78	4,890	687
E	350, 400A	40 13/16	34 13/16	23 5/16	35	48 1/4	11.73	5,865	751
(mm)		A	B	C	F	G	(sq. M)	(M^3/hr)	kg
A	75, 100	(802)	(649)	(560)	(635)	(610)	(0.39)	(3,542)	(225)
B	125, 150	(802)	(649)	(560)	(635)	(864)	(0.55)	(5,012)	(254)
N/A	175, 200, 225	(1,037)	(884)	(592)	(889)	(610)	(0.54)	(4,953)	(258)
D	250, 300	(1,037)	(884)	(592)	(889)	(1,022)	(0.91)	(8,308)	(312)
E	350, 400A	(1,037)	(884)	(592)	(889)	(1,226)	(1.09)	(9,965)	(341)



- Coil Cabinet weights shown are for cabinet only and must be added to weight of base unit (found in the Technical Data Tables for Model RDH and REH) and any other modules ordered. Cabinet weight does do not include coil. For coil weights contact your Reznor Representative.

REZNOR®

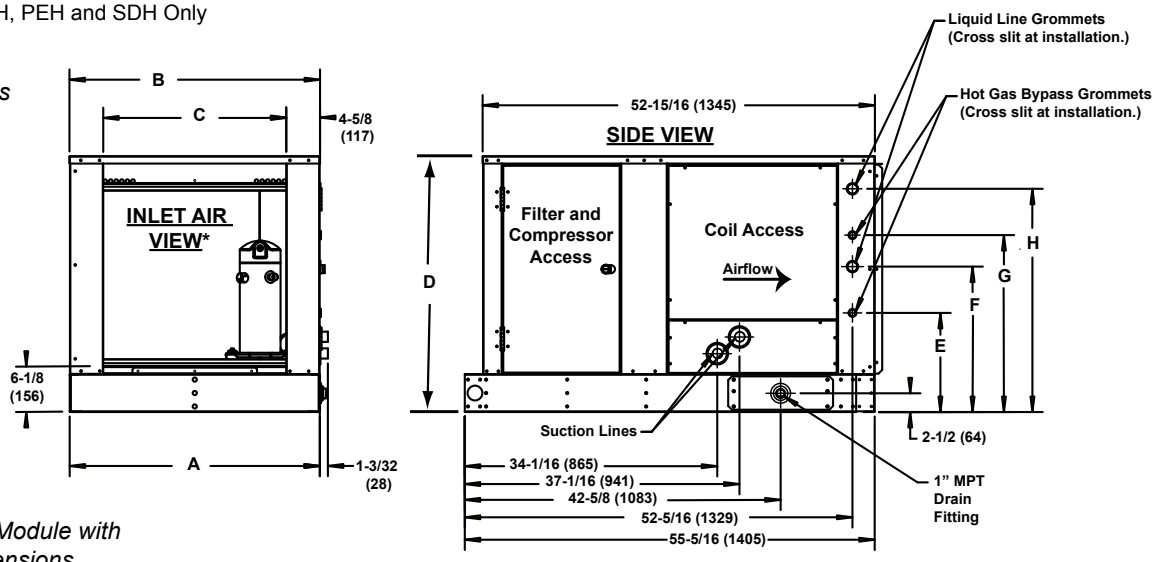
DEHUMIDIFCATION COOLING COIL MODULE

Dimensions - Draw-Through dH Cooling Coil Module for DX Coil

Applies to Models PDH, PEH and SDH Only

DX Cooling Coil Module Dimensions with Reheat

*If there is no mixing box or evaporative cooler attached, the inlet air opening would have an optional duct flange.



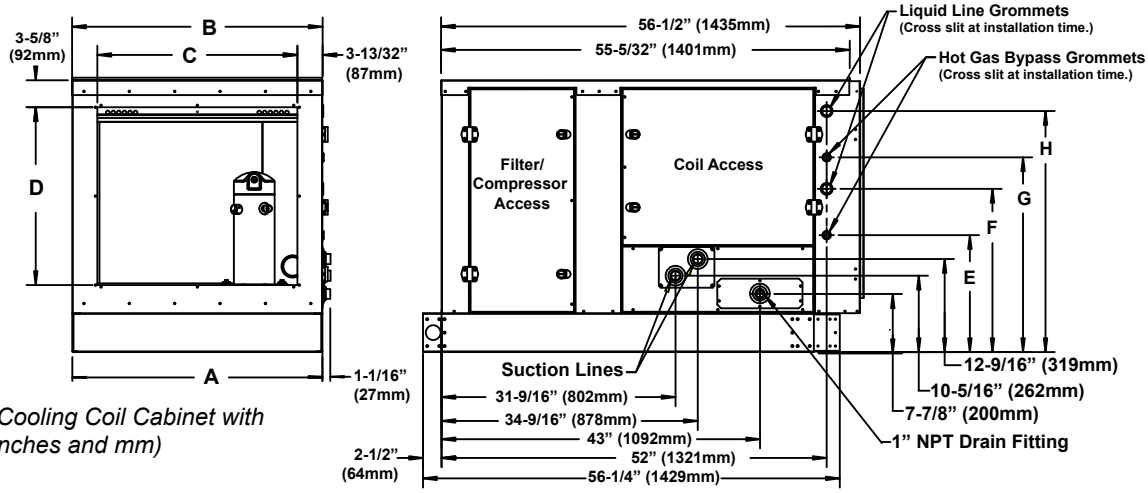
DX Cooling Coil Module with Reheat Dimensions

Model PDH or SDH Size	Model PEH Size	DX Cooling Coil Module with Reheat (Dehumidification) Dimension Codes															
		A	B	C	D	E	F	G	H	A	B	C	D	E	F	G	H
		Dimensions (inches)								Dimensions (mm)							
75/100	10A/20A/40A	33-3/4	33-13/16	24-23/32	34-17/32	13-3/8	19-5/8	23-7/8	30-1/8	857	859	628	877	340	498	606	765
125/150	15B/30B/60B	43-3/4	43-13/16	34-23/32	34-17/32	13-3/8	19-5/8	23-7/8	30-1/8	1111	1113	882	877	340	498	606	765
175/200/225	N/A	33-3/4	33-13/16	24-23/32	43-7/8	15-3/8	21-5/8	27-7/8	34-1/8	857	859	628	1114	391	549	708	867
250/300	30D/60D/90D/120D	50	50-5/32	40-15/16	43-7/8	15-3/8	21-5/8	27-7/8	34-1/8	1270	1274	1040	1114	391	549	708	867
350/400A	40E/80E/120E	58	58-5/32	48-15/16	43-7/8	15-3/8	21-5/8	27-7/8	34-1/8	1473	1503	1243	1114	391	549	708	867

Dimensions - Draw-Through dH Cooling Coil Module for DX Coil

Applies to Models RDH and REH Only

Dimensions of DX Cooling Coil Cabinet with Re-heat, Option AU7



Dimensions of DX Cooling Coil Cabinet with Reheat (inches and mm)

Model RDH Size	Model REH Size	DX Cooling Coil Module with Reheat (Dehumidification) Dimension Codes															
		A	B	C	D	E	F	G	H	A	B	C	D	E	F	G	H
		Dimensions (inches)								Dimensions (mm)							
75/100	10A/20A/40A	33-3/4	33-13/16	27	24	15-3/4	22	26-1/4	32-1/2	857	859	686	610	400	559	667	826
125/150	15B/30B/60B	43-3/4	43-13/16	37	24	15-3/4	22	26-1/4	32-1/2	1111	1113	940	610	400	559	667	826
175/200/225	N/A	33-3/4	33-13/16	27	33-1/4	17-3/4	24	30-1/4	36-1/2	857	859	686	845	451	610	768	927
250/300	30D/60D/90D/120D	50	50-5/32	43-1/4	33-1/4	17-3/4	24	30-1/4	36-1/2	1270	1274	1099	845	451	610	768	927
350/400A	40E/80E/120E	58	58-5/32	51-1/4	33-1/4	17-3/4	24	30-1/4	36-1/2	1473	1503	1302	845	451	610	768	927

dH Coil Cabinet Net Weight

Cabinet Size	Model Size	Net Weight	
		lbs	kg
A	75, 100	497	(225)
B	125, 150	560	(254)
C	175, 200, 225	569	(258)
D	250, 300	687	(312)
E	350, 400A	751	(341)

REZNOR®

MCA & MOP Data (ranges)

For PREEVA® Dehumidification Units

Models PDH, RDH or SDH

NOTE: For complete MCA & MOP Data, go to www.RezSpec.com and search for “preevamcamopdata” (no spaces).

PDH RHD SDH Size	Reheat Compressor Model	AK2 208/1/60							AK3 230/1/60						
		Compressor			Blower Motor				Compressor			Blower Motor			
		RLA	MCC	LRA	HP	FLA	MCA	MOP	RLA	MCC	LRA	HP	FLA	MCA	MOP
75-100	ZP29K5E	14.1	22.0	77.0	1/4	2.3	19.9	35	14.1	22.0	77.0	1/4	2.3	19.9	35
					5	28.3	49.5	70				5	25.6	46.1	70
125-150	ZP29K5E	14.1	22.0	77.0	1/4	2.3	19.9	35	14.1	22.0	77.0	1/4	2.3	19.9	35
					5	28.3	49.5	70				5	25.6	46.1	70
175-200-225	ZP29K5E	14.1	22.0	77.0	1/4	2.3	19.9	35	14.1	22.0	77.0	1/4	2.3	19.9	35
					5	28.3	49.5	70				5	25.6	46.1	70
250-300	ZP57K3E	30.1	47.0	158.0	1/4	2.3	40.0	70	30.1	47.0	158.0	1/4	2.3	40.0	70
					5	28.3	66.0	90				5	25.6	63.3	90
350-400	ZP57K3E	30.1	47.0	158.0	1/4	2.3	40.0	70	30.1	47.0	158.0	1/4	2.3	40.0	70
					5	28.3	66.0	90				5	25.6	63.3	90

PDH RHD SDH Size	Reheat Compressor Model	AK6 230/3/60							AK5 208/3/60						
		Compressor			Blower Motor				Compressor			Blower Motor			
		RLA	MCC	LRA	HP	FLA	MCA	MOP	RLA	MCC	LRA	HP	FLA	MCA	MOP
75-100	ZP29K5E	9.0	14.0	71.0	1/4	1.4	12.6	20	9.0	14.0	71.0	1/4	1.1	12.3	20
					5	13.2	25.5	35				5	13.4	25.7	40
125-150	ZP29K5E	9.0	14.0	71.0	1/4	1.4	12.6	20	9.0	14.0	71.0	1/4	1.1	12.3	20
					5	13.2	25.5	35				5	13.4	25.7	40
175-200-225	ZP29K5E	9.0	14.0	71.0	1/4	1.4	12.6	20	9.0	14.0	71.0	1/4	1.1	12.3	20
					5	13.2	25.5	35				5	13.4	25.7	40
250-300	ZP57K3E	20.5	32.0	155.0	1/4	1.4	27.0	45	20.5	32.0	155.0	1/4	1.1	26.7	45
					5	13.2	38.8	60				5	13.4	39.0	60
350-400	ZP57K3E	20.5	32.0	155.0	1/4	1.4	27.0	45	20.5	32.0	155.0	1/4	1.1	26.7	45
					5	13.2	38.8	60				5	13.4	39.0	60

PDH RHD SDH Size	Reheat Compressor Model	AK7 480/3/60							AK8 575/3/60						
		Compressor			Blower Motor				Compressor			Blower Motor			
		RLA	MCC	LRA	HP	FLA	MCA	MOP	RLA	MCC	LRA	HP	FLA	MCA	MOP
75-100	ZP29K5E	5.6	8.8	38.0	1/4	0.75	7.8	15	3.8	5.9	36.5	1/2	0.9	5.6	15
					5	6.6	13.9	20				5	5.4	10.5	15
125-150	ZP29K5E	5.6	8.8	38.0	1/4	0.75	7.8	15	3.8	5.9	36.5	1/2	0.9	5.6	15
					5	6.6	13.9	20				5	5.4	10.5	15
175-200-225	ZP29K5E	5.6	8.8	38.0	1/4	0.75	7.8	15	3.8	5.9	36.5	1/2	0.9	5.6	15
					5	6.6	13.9	20				5	5.4	10.5	15
250-300	ZP57K3E	9.6	15.0	75.0	1/4	0.75	12.8	20	7.6	11.9	54.0	1/2	0.9	10.4	15
					5	6.6	18.6	25				5	5.4	14.9	20
350-400	ZP57K3E	9.6	15.0	75.0	1/4	0.75	12.8	20	7.6	11.9	54.0	1/2	0.9	10.4	15
					5	6.6	18.6	25				5	5.4	14.9	20

REZNOR®

MCA & MOP Data (ranges)

For PREEVA® Electric Units without Dehumidification

Models PEH or REH

NOTE: For complete MCA & MOP Data, go to www.RezSpec.com and search for "preevamcamopdata" (no spaces).

PEH, REH Cabinet Size	kW	AK2 208/1/60						AK3 230/1/60					
		EH FLA	Blower Motor HP	Blower Motor FLA	MCA	MOP (Fuse)	MOP	EH FLA	Blower Motor HP	Blower Motor FLA	MCA	MOP (Fuse)	MOP
A	10	36.1	1/4	2.3	47.4	80	80	41.7	1/4	2.3	54.4	90	90
			5	28.3	73.4	100	100		5	25.6	77.7	100	100
	20	72.2	1/4	2.3	92.6	150	150	83.3	1/4	2.3	106.5	175	175
			5	28.3	118.6	175	175		5	25.6	129.8	200	200
B	15	54.2	1/4	2.3	70.0	125	125	62.5	1/4	2.3	80.4	125	125
			5	28.3	96.0	150	150		5	25.6	103.7	150	150
	30	108.3	1/4	2.3	137.7	225	225	125.0	1/4	2.3	158.6	250	250
			5	28.3	163.7	250	250		5	25.6	181.9	300	300

PEH, REH Cabinet Size	kW	AK5 208/3/60						AK6 230/3/60					
		EH FLA	Blower Motor HP	Blower Motor FLA	MCA	MOP (Fuse)	MOP	EH FLA	Blower Motor HP	Blower Motor FLA	MCA	MOP (Fuse)	MOP
A	20	41.7	1/4	1.1	53.2	90	90	48.1	1/4	1.4	61.5	100	100
			5	13.4	65.5	100	100		5	13.2	73.3	100	100
	40	83.4	1/4	1.1	105.3	175	175	96.2	1/4	1.4	121.7	200	200
			5	13.4	117.6	200	200		5	13.2	133.5	225	225
B	30	62.5	1/4	1.1	79.3	125	125	72.2	1/4	1.4	91.6	150	150
			5	13.4	91.6	150	150		5	13.2	103.4	175	175
	60	125.1	1/4	1.1	126.5	125	150	144.3	1/4	1.4	146.1	125	150
			5	13.4	141.8	150	150		5	13.2	160.8	175	175
D	30	62.5	1/4	1.1	79.3	125	125	72.2	1/4	1.4	91.6	150	150
			5	13.4	91.6	150	150		5	13.2	103.4	175	175
	60	125.1	1/4	1.1	126.5	125	150	144.3	1/4	1.4	146.1	125	150
			5	13.4	141.8	150	150		5	13.2	160.8	175	175
	90	187.6	1/4	1.1	189.0	175	200	216.5	1/4	1.4	218.3	200	225
			5	13.4	204.4	200	225		5	13.2	233.0	225	250
	120	250.2	1/4	1.1	251.6	250	300	288.7	1/4	1.4	290.4	250	300
			5	13.4	266.9	250	300		5	13.2	305.2	300	350
E	40	83.4	1/4	1.1	105.3	175	175	96.2	1/4	1.4	121.7	200	200
			5	13.4	117.6	200	200		5	13.2	133.5	225	225
	80	166.8	1/4	1.1	168.2	150	175	192.5	1/4	1.4	194.2	175	200
			5	13.4	183.5	175	200		5	13.2	209.0	225	225
	120	250.2	1/4	1.1	251.6	250	300	288.7	1/4	1.4	290.4	250	300
			5	13.4	266.9	250	300		5	13.2	305.2	300	350

PEH, REH Cabinet Size	kW	AK7 480/3/60						AK8 575/3/60					
		EH FLA	Blower Motor HP	Blower Motor FLA	MCA	MOP (Fuse)	MOP	EH FLA	Blower Motor HP	Blower Motor FLA	MCA	MOP (Fuse)	MOP
A	20	24.1	1/4	0.75	30.8	50	50	20.1	1/2	0.9	26.0	45	45
			5	6.6	36.7	60	60		5	5.4	30.5	50	50
	40	48.1	1/4	0.75	60.9	100	100	40.2	1/2	0.9	51.1	90	90
			5	6.6	66.7	100	100		5	5.4	55.6	90	90
B	30	36.1	1/4	0.75	45.9	80	80	30.1	1/2	0.9	38.6	60	60
			5	6.6	51.7	80	80		5	5.4	43.1	70	70
	60	72.2	1/4	0.75	73.1	70	80	60.2	1/2	0.9	61.4	60	70
			5	6.6	80.4	80	90		5	5.4	67.0	70	70
D	30	36.1	1/4	0.75	45.9	80	80	30.1	1/2	0.9	38.6	60	60
			5	6.6	51.7	80	80		5	5.4	43.1	70	70
	60	72.2	1/4	0.75	73.1	70	80	60.2	1/2	0.9	61.4	60	70
			5	6.6	80.4	80	90		5	5.4	67.0	70	70
	90	108.3	1/4	0.75	109.2	100	125	90.4	1/2	0.9	91.5	90	100
			5	6.6	116.5	100	125		5	5.4	97.1	100	100
	120	144.3	1/4	0.75	145.3	125	150	120.5	1/2	0.9	121.6	100	125
			5	6.6	152.6	150	175		5	5.4	127.2	125	150
E	40	48.1	1/4	0.75	60.9	100	100	40.2	1/2	0.9	51.1	90	90
			5	6.6	66.7	100	100		5	5.4	55.6	90	90
	80	96.2	1/4	0.75	97.2	90	100	80.3	1/2	0.9	81.5	80	90
			5	6.6	104.5	100	125		5	5.4	87.1	90	90
	120	144.3	1/4	0.75	145.3	125	150	120.5	1/2	0.9	121.6	100	125
			5	6.6	152.6	150	175		5	5.4	127.2	125	150

REZNOR®

MCA & MOP Data (ranges)

For PREEVA® Electric Units with Dehumification

Models PEH or REH

NOTE: For complete MCA & MOP Data, go to www.RezSpec.com and search for "preevamcamopdata" (no spaces).

PEH, REH Cabinet Size	Reheat Compressor Model	Electric Heat kW	AK2 208/1/60								AK3 230/1/60							
			Blower Motor		Cooling		Heating				Blower Motor		Cooling		Heating			
			HP	FLA	MCA	MOP	MCA	MOP	MCA	MOP	HP	FLA	MCA	MOP	MCA	MOP	MCA	MOP
A	ZP29K5E	10	1/4	2.3	19.9	35	47.4	80	47.4	80	1/4	2.3	19.9	35	54.4	90	54.4	90
			5	28.3	49.5	70	73.4	100	73.4	100	5	25.6	46.1	70	77.7	100	77.7	100
		20	1/4	2.3	19.9	35	92.6	150	92.6	150	1/4	2.3	19.9	35	106.5	175	106.5	175
			5	28.3	49.5	70	118.6	175	118.6	175	5	25.6	46.1	70	129.8	200	129.8	200
B	ZP29K5E	15	1/4	2.3	19.9	35	70.0	125	70.0	125	1/4	2.3	19.9	35	80.4	125	80.4	125
			5	28.3	49.5	70	96.0	150	96.0	150	5	25.6	46.1	70	103.7	150	103.7	150
		30	1/4	2.3	19.9	35	137.7	225	137.7	225	1/4	2.3	19.9	35	158.6	250	158.6	250
			5	28.3	49.5	70	163.7	250	163.7	250	5	25.6	46.1	70	181.9	300	181.9	300

PEH, REH Cabinet Size	Reheat Compressor Model	Electric Heat kW	AK5 208/3/60								AK6 230/3/60							
			Blower Motor		Cooling		Heating				Blower Motor		Cooling		Heating			
			HP	FLA	MCA	MOP	MCA	MOP	MCA	MOP	HP	FLA	MCA	MOP	MCA	MOP	MCA	MOP
A	ZP29K5E	20	1/4	1.1	12.3	20	53.2	90	53.2	90	1/4	1.4	12.6	20	61.5	100	61.5	100
			5	13.4	25.7	40	65.5	100	65.5	100	5	13.2	25.5	35	73.3	100	73.3	100
		40	1/4	1.1	12.3	20	105.3	175	105.3	175	1/4	1.4	12.6	20	121.7	200	121.7	200
			5	13.4	25.7	40	117.6	200	117.6	200	5	13.2	25.5	35	133.5	225	133.5	225
B	ZP29K5E	30	1/4	1.1	12.3	20	79.3	125	79.3	125	1/4	1.4	12.6	20	91.6	150	91.6	150
			5	13.4	25.7	40	91.6	150	91.6	150	5	13.2	25.5	35	103.4	175	103.4	175
		60	1/4	1.1	12.3	20	126.5	150	126.5	150	1/4	1.4	12.6	20	146.1	150	146.1	150
			5	13.4	25.7	40	141.8	150	141.8	150	5	13.2	25.5	35	160.8	175	160.8	175
D	ZP57K3E	30	1/4	1.1	12.3	20	79.3	125	79.3	125	1/4	1.4	12.6	20	91.6	150	91.6	150
			5	13.4	25.7	40	91.6	150	91.6	150	5	13.2	25.5	35	103.4	175	103.4	175
		60	1/4	1.1	12.3	20	126.5	150	126.5	150	1/4	1.4	12.6	20	146.1	150	146.1	150
			5	13.4	25.7	40	141.8	150	141.8	150	5	13.2	25.5	35	160.8	175	160.8	175
		90	1/4	1.1	12.3	20	189.0	200	189.0	200	1/4	1.4	12.6	20	218.3	225	218.3	225
			5	13.4	25.7	40	204.4	225	204.4	225	5	13.2	25.5	35	233.0	250	233.0	250
		120	1/4	1.1	12.3	20	251.6	300	251.6	300	1/4	1.4	12.6	20	290.4	300	290.4	300
			5	13.4	25.7	40	266.9	300	266.9	300	5	13.2	25.5	35	305.2	350	305.2	350
E	ZP57K3E	40	1/4	1.1	26.7	45	105.3	175	105.3	175	1/4	1.4	27.0	45	121.7	200	121.7	200
			5	13.4	39.0	60	117.6	200	117.6	200	5	13.2	38.8	60	133.5	225	133.5	225
		80	1/4	1.1	26.7	45	168.2	175	168.2	175	1/4	1.4	27.0	45	194.2	200	194.2	200
			5	13.4	39.0	60	183.5	200	183.5	200	5	13.2	38.8	60	209.0	225	209.0	225
		120	1/4	1.1	26.7	45	251.6	300	251.6	300	1/4	1.4	27.0	45	290.4	300	290.4	300
			5	13.4	39.0	60	266.9	300	266.9	300	5	13.2	38.8	60	305.2	350	305.2	350

PEH, REH Cabinet Size	Reheat Compressor Model	Electric Heat kW	AK7 480/3/60								AK8 575/3/60							
			Blower Motor		Cooling		Heating				Blower Motor		Cooling		Heating			
			HP	FLA	MCA	MOP	MCA	MOP	MCA	MOP	HP	FLA	MCA	MOP	MCA	MOP	MCA	MOP
A	ZP29K5E	20	1/4	0.75	7.8	15	30.8	50	30.8	50	1/2	0.9	5.6	15	26.0	45	26.0	45
			5	6.6	13.9	20	36.7	60	36.7	60	5	5.4	10.5	15	30.5	50	30.5	50
		40	1/4	0.75	7.8	15	60.9	100	60.9	100	1/2	0.9	5.6	15	51.1	90	51.1	90
			5	6.6	13.9	20	66.7	100	66.7	100	5	5.4	10.5	15	55.6	90	55.6	90
B	ZP29K5E	30	1/4	0.75	7.8	15	45.9	80	45.9	80	1/2	0.9	5.6	15	38.6	60	38.6	60
			5	6.6	13.9	20	51.7	80	51.7	80	5	5.4	10.5	15	43.1	70	43.1	70
		60	1/4	0.75	7.8	15	73.1	80	73.1	80	1/2	0.9	5.6	15	61.4	70	61.4	70
			5	6.6	13.9	20	80.4	90	80.4	90	5	5.4	10.5	15	67.0	70	67.0	70
D	ZP57K3E	30	1/4	0.75	7.8	15	45.9	80	45.9	80	1/2	0.9	5.6	15	38.6	60	38.6	60
			5	6.6	13.9	20	51.7	80	51.7	80	5	5.4	10.5	15	43.1	70	43.1	70
		60	1/4	0.75	7.8	15	73.1	80	73.1	80	1/2	0.9	5.6	15	61.4	70	61.4	70
			5	6.6	13.9	20	80.4	90	80.4	90	5	5.4	10.5	15	67.0	70	67.0	70
		90	1/4	0.75	7.8	15	109.2	125	109.2	125	1/2	0.9	5.6	15	91.5	100	91.5	100
			5	6.6	13.9	20	116.5	125	116.5	125	5	5.4	10.5	15	97.1	100	97.1	100
		120	1/4	0.75	7.8	15	145.3	150	145.3	150	1/2	0.9	5.6	15	121.6	125	121.6	125
			5	6.6	13.9	20	152.6	175	152.6	175	5	5.4	10.5	15	127.2	150	127.2	150
E	ZP57K3E	40	1/4	0.75	12.8	20	60.9	100	60.9	100	1/2	0.9	10.4	15	51.1	90	51.1	90
			5	6.6	18.6	25	66.7	100	66.7	100	5	5.4	14.9	20	55.6	90	55.6	90
		80	1/4	0.75	12.8	20	97.2	100	97.2	100	1/2	0.9	10.4	15	81.5	90	81.5	90
			5	6.6	18.6	25	104.5	125	104.5	125	5	5.4	14.9	20	87.1	90	87.1	90
		120	1/4	0.75	12.8	20	145.3	150	145.3	150	1/2	0.9	10.4	15	121.6	125	121.6	125
			5	6.6	18.6	25	152.6	175	152.6	175	5	5.4	14.9	20	127.2	150	127.2	150

MCA & MOP Data

Applies to Model SHH

BLOWER MOTOR H.P. (OPTION)	MINIMUM CIRCUIT AMPACITY - (MCA) AMPS							CALCULATED MAXIMUM OVERCURRENT PROTECTION (MOP)							Maximum Fuze Size						
	115 V. 1 PH. 60 HZ.	208 V. 1 PH. 60 HZ.	230 V. 1 PH. 60 HZ.	208 V. 3 PH. 60 HZ.	230 V. 3 PH. 60 HZ.	460 V. 3 PH. 60 HZ.	575 V. 3 PH. 60 HZ.	115 V. 1 PH. 60 HZ.	208 V. 1 PH. 60 HZ.	230 V. 1 PH. 60 HZ.	208 V. 3 PH. 60 HZ.	230 V. 3 PH. 60 HZ.	460 V. 3 PH. 60 HZ.	575 V. 3 PH. 60 HZ.	115 V. 1 PH. 60 HZ.	208 V. 1 PH. 60 HZ.	230 V. 1 PH. 60 HZ.	208 V. 3 PH. 60 HZ.	230 V. 3 PH. 60 HZ.	460 V. 3 PH. 60 HZ.	575 V. 3 PH. 60 HZ.
	STD. AK1	**STD. AK2**	**STD. AK3**	**STD. AK5**	**STD. AK6**	**STD. AK7**	**STD. AK8**	**STD. AK1**	**STD. AK2**	**STD. AK3**	**STD. AK5**	**STD. AK6**	**STD. AK7**	**STD. AK8**	**STD. AK1**	**STD. AK2**	**STD. AK3**	**STD. AK5**	**STD. AK6**	**STD. AK7**	**STD. AK8**
1/4 (AL2)	8.0	5.1	5.1	3.9	4.2	3.5	-	12.6	7.4	7.4	6.1	6.4	5.7	-	15	15	15	15	15	15	-
1/3 (AL3)	9.7	6.0	6.0	4.2	4.4	3.6	-	15.7	9.0	9.0	6.4	6.6	5.8	-	15	15	15	15	15	15	-
1/2 (AL4)	13.2	8.6	7.7	5.3	6.0	4.3	3.7	22.0	13.7	12.1	7.8	9.0	6.5	5.9	20	15	15	15	15	15	15
3/4 (AL5)	16.0	10.1	9.1	5.8	5.5	4.1	3.8	27.0	16.4	14.6	8.7	8.1	6.3	6.0	25	15	15	15	15	15	15
1 (AL6)	18.5	11.6	10.3	6.8	6.2	4.4	3.9	31.5	19.1	16.8	10.5	9.4	6.6	6.1	30	20	15	15	15	15	15
1-1/2 (AL7)	21.0	12.0	11.6	9.2	8.5	5.7	4.4	36.0	19.8	19.1	14.8	13.5	8.5	6.6	35	20	20	15	15	15	15
2 (AL8)	33.0	17.6	17.6	11.0	10.5	6.6	4.9	57.6	29.9	29.9	18.0	17.1	10.1	7.1	50	30	30	15	15	15	15
3 (AL9)	-	19.3	17.7	13.5	13.0	7.6	6.7	-	33.0	30.1	22.5	21.6	11.9	10.3	-	30	30	20	20	15	15
5 (AL10)	-	37.6	34.2	19.0	18.7	10.5	9.0	-	65.9	59.8	32.4	31.9	17.1	14.4	-	60	60	30	30	15	15
1/4 (AL19)	6.7	5.0	4.7	4.4	4.2	3.5	-	10.3	7.2	6.9	6.6	6.4	5.7	-	15	15	15	15	15	15	-
1/3 (AL20)	8.0	5.1	5.2	4.0	4.0	3.4	-	12.6	7.4	7.6	6.2	6.2	5.6	-	15	15	15	15	15	15	-
1/2 (AL21)	11.2	6.6	6.7	5.1	4.8	3.8	3.5	18.4	10.1	10.3	7.4	7.0	6.0	5.7	15	15	15	15	15	15	15
3/4 (AL22)	16.0	9.0	9.1	4.8	5.0	3.9	3.6	27.0	14.4	14.6	7.0	7.2	6.1	5.8	25	15	15	15	15	15	15
1 (AL23)	17.2	10.0	9.7	6.3	6.5	4.5	4.2	29.2	16.2	15.7	9.6	9.9	6.7	6.4	30	15	15	15	15	15	15
1-1/2 (AL24)	22.7	14.1	12.5	7.6	7.7	5.0	4.4	39.1	23.6	20.7	11.9	12.1	7.2	6.6	40	20	20	15	15	15	15
2 (AL25)	32.2	-	12.6	11.0	9.5	5.8	5.1	56.2	-	20.9	18.0	15.3	8.7	7.4	50	-	20	15	15	15	15
3 (AL26)	39.7	-	21.0	12.1	11.2	6.7	6.0	69.7	-	36.0	20.0	18.4	10.3	9.0	70	-	35	20	15	15	15
5 (AL27)	-	-	27.5	22.2	17.2	9.7	8.2	-	-	47.7	38.2	29.2	15.7	13.0	-	-	45	35	30	15	15
1 (AL36)	-	-	-	6.1	6.0	4.3	3.9	-	-	-	9.2	9.0	6.5	6.1	-	-	-	15	15	15	15
1-1/2 (AL37)	-	-	-	7.8	7.2	4.8	4.4	-	-	-	12.3	11.2	7.0	6.6	-	-	-	15	15	15	15
2 (AL38)	-	-	-	9.8	9.2	5.7	4.9	-	-	-	15.9	14.8	8.5	7.1	-	-	-	15	15	15	15
3 (AL39)	-	-	-	12.6	11.5	6.8	6.0	-	-	-	20.9	18.9	10.5	9.0	-	-	-	20	15	15	15
5 (AL40)	-	-	-	16.7	16.7	9.5	8.2	-	-	-	28.3	28.3	15.3	13.0	-	-	-	25	25	15	15
1 (AL45)	-	-	-	6.5	6.2	4.5	-	-	-	-	9.9	9.4	6.7	-	-	-	-	15	15	15	-
1-1/2 (AL46)	-	-	-	8.5	8.3	5.2	-	-	-	-	13.5	13.2	7.6	-	-	-	-	15	15	15	-
2 (AL47)	-	-	-	9.8	9.6	6.0	-	-	-	-	15.9	15.5	9.0	-	-	-	-	15	15	15	-
3 (AL48)	-	-	-	13.5	12.7	8.0	-	-	-	-	22.5	21.1	12.6	-	-	-	-	20	20	15	-

REZNOR®

REZNOR®

SAMPLE SPECIFICATION
MODEL SHH
HIGH EFFICIENCY SPLIT SYSTEM

Provide packaged, indoor heating (and cooling) units with separated combustion as Reznor® brand equipment.

The units shall be the SHH series, minimum 91% efficiency, with separated-combustion gas furnace, designed for ceiling suspension or floor or slab mounting. The gas furnace is to be arranged for ducted inlet combustion air and flue gas exhaust. The unit must have single point wall or roof penetration for entry of combustion air and exhaust of flue gases by the use of a concentric adapter.

Controls

All units shall be equipped for use with (natural gas) (propane); (115/1) (208/1) (230/1) (208/3) (230/3) (460/3) (575/3) supply voltage with (unit mounted, non-fusible, lockable disconnect switch); 24-volt control voltage transformer; protective air proving switch; resiliently mounted isolated venter motor; a high temperature limit, high flue temperature limit and condensate drain blockage switch. Furnace operation shall be controlled through an integrated circuit board. The circuit board shall monitor heater operation and have LED diagnostic indicator lights to identify abnormalities in control functions. Unit shall have a two-stage gas control with DDC or thermostat controls.

Heat Section

The gas furnace shall have a Reznor Tcore3® heat exchanger and single burner combustion system. The Heating system shall provide a minimum of 91% thermal efficiency. The TCORE^3 combustion systems shall be of aluminized steel (409 stainless steel) primary heat exchanger and aluminum secondary heat exchanger. The furnace shall be equipped with all required safety elements including flue high temperature switch, condensate drain, condensate drain blockage shutdown switch and heat exchanger high temperature shutdown.

Blower Section

The (single wall, insulated) (double wall [insulated] [high density insulated]) blower section shall be supplied with (horizontal supply opening) (screened horizontal supply opening) (horizontal supply air inlet opening with duct flanges) (screened horizontal supply air inlet opening with duct flanges). The blower section shall include an adjustable belt-driven centrifugal blower and (open dripproof) (totally enclosed) (premium efficiency) [rubber] [spring] vibration isolated motor with (contactor) (motor starter) (variable frequency drive). (Unit may include [1" or 2" disposable] [1" or 2" permanent] [1", 2", or 4" pleated] filters).

Optional Accessories

Packaged unit may have factory-attached modules:

- (mixing box for inlet air with selection of outside and return entering air configurations [top, bottom, rear combinations with or without screens], outside or outside and return air dampers modulating economizer controls with direct-coupled 24VAC spring return actuators. Construction of mixing box will be (single wall, insulated) (double wall, [insulated] [high density insulated]).

- (draw-through cooling coil module with factory installed [dx coil] [chilled water coil]. Construction of cooling coil module will be double wall with [standard (R value 3.8)] [high density (R value 4.4)] insulation). (Cooling coil cabinet to include UVC germicidal lamp for neutralization of VOCs and micro-organisms for improved IAQ).

Dual compressor systems shall be designed to provide a minimum three-stage capacity increment using integrated DDC or thermostat control. The refrigerant circuits shall include thermal expansion valves with external equalizers. Service gage ports and refrigerant line filter dryers are factory installed as standard.

Cabinet

The packaged system shall have a pre-coat RAL 1001 white paint finish. Finish shall be a minimum 80 gloss on G30 galvanized steel.

Cabinet shall have through-the-base electrical supply knockout. Control, burner, and blower service compartment doors shall be hinged. Blower door hardware shall be heavy duty stainless. Control and burner door hardware shall have heavy duty external hardware.

The following features will be factory installed: (duct flanges); (discharge louvers [horizontal] [horizontal and vertical]); (convenience outlet); (firestat); (discharge temperature low limit), (over/under voltage or phase loss protection); (high, low, or high and low gas pressure switches); and (relays).

The following accessories will be provided: horizontal or vertical vent/combustion air kit; (downturn nozzle [25-65° with or without vertical louvers] [50-90° with or without vertical louvers]); (thermostat selection to match all analog control systems), (gas pressure regulator); (remote console); and (fused disconnect switch).

Certification

The packaged heating and cooling system shall be design-certified to ANSI Z83.8 and CSA 2.6 Standards. The energy usage shall be designed to meet ASHRAE Standard 90.1.

See specific information for sizes and capacities.

Product manufacturer must have minimum of 40 years of experience with separated combustion heating equipment.

REZNOR®

SAMPLE SPECIFICATION
MODEL SDH,
INDOOR HEATING AND MAKEUP AIR UNITS (SEPARATED COMBUSTION)

Provide packaged, indoor heating and makeup air units with separated combustion as Reznor® brand equipment. The units shall be the SDH series, minimum 81% efficiency, with separated-combustion gas furnace, designed for ceiling suspension or floor or slab mounting. The gas furnace is to be arranged for ducted inlet combustion air and flue gas exhaust. The unit must have single point wall or roof penetration for entry of combustion air and exhaust of flue gases by the use of a concentric adapter. Separated combustion is to be used in negative building pressures and/or dirty or corrosive atmospheres.

CONTROLS

All units shall be equipped for use with (natural gas) (propane); (115/1) (208/1) (230/1) (208/3) (230/3) (460/3) (575/3) supply voltage with (unit mounted, non-fusible, lockable disconnect switch); 24-volt control transformer; protective air proving switch; resiliently mounted isolated venter motor; and a high temperature limit control. Operation shall be controlled through an integrated circuit board. The circuit board shall monitor heater operation and have LED diagnostic indicator lights to identify abnormalities in control functions. Unit shall have a (one-stage gas control) (two-stage gas control) (two-stage gas makeup air control) (33% low fire capacity makeup air control) (2-stage heating/3-stage cooling digital control [space temperature] [discharge temperature]); or (electronic modulation heating 25% low fire - natural gas, 40% low fired - propane/3-stage cooling digital control [space temperature] [discharge temperature]).

HEATING SECTION

The gas furnace shall have a Reznor TCORE2® heat exchanger and single burner combustion system. The heat exchanger shall be of (aluminized) (409 stainless) (316 stainless) steel. The furnace shall be equipped with all required safety elements.

BLOWER SECTION

The (single wall, [uninsulated] [insulated]) (double wall [insulated] [high density insulated]) blower section shall be supplied with (horizontal supply opening) (screened horizontal supply opening) (horizontal supply air inlet opening with duct flanges) (screened horizontal supply air inlet opening with duct flanges). The blower section shall include an adjustable belt-driven centrifugal blower and (open dripproof) (totally enclosed) (premium efficiency) [rubber] [spring] vibration isolated motor with (contactor) (motor starter) (variable frequency drive). (Unit may include [1" or 2" disposable] [1" or 2" permanent] [1", 2", or 4" pleated] filters).

OPTIONAL ACCESSORIES

Packaged unit may have factory-attached modules:

- (mixing box for inlet air with selection of outside and return entering air configurations [top, bottom, rear combinations with or without screens], outside or outside and return air dampers [manual, 2-position, 3-position, modulating, DDC controlled] with direct-coupled 24VAC actuators and a variety of controls [unit mounted or remote dial; mixed air controller with or without warm-up; building pressure null switch]. Construction of mixing box will be (single wall, [uninsulated] [insulated]) (double wall, [insulated] [high density insulated]).

- (draw-through cooling coil module with factory installed [dx coil] [chilled water coil]. Construction of cooling coil module will be double wall with [standard (R value 3.8)] [high density (R value 4.4)] insulation). (Cooling coil cabinet to include UVC germicidal lamp for neutralization of VOCs and micro-organizms for improved IAQ).

Reheat pump shall include a dedicated compressor and R410A refrigeration circuit using full condenser reheat or total heat of rejection in the supply air stream. All methods of reheat shall comply with ASHRAE 90.1 requirements. Dual compressor systems shall be designed to provide a minimum three-stage capacity increment using integrated DDC control. The refrigerant circuits shall include thermal expansion valves with external equalizers. Service gage ports and refrigerant line filter dryers are factory installed as standard. Precooling coils shall not exceed one row depth to minimize air pressure drop. The reheat coil position shall include a minimum separation of 4" from the cooling coil to eliminate re-evaporation of cooling coil condensate. Modulating capacity control not required unless necessary to maintain proper discharge air control.

- (evaporative cooling module. Construction of evaporative cooling cabinet will be [white pre-painted] [300 series stainless steel] with 300 series stainless steel reservoir [and (1") (2") aluminum pre-filter]. Water system to include [recirculating float and pump] [AquaSaver™ microprocessor-based timed distribution system]. Evaporative media to consist of [6"] [12"] [Glacier-Core®] [Glas-dek® UL900 Class I noncombustible] media.

CABINET

The packaged system shall have a pre-coat RAL 1001 white paint finish. Finish shall be a minimum 80 gloss on G30 galvanized steel.

Cabinet shall have through-the-base electrical supply knockout. Control, burner, and blower service compartment doors shall be hinged. Blower door hardware shall be heavy duty stainless. Control and burner door hardware shall have heavy duty external hardware.

The following features will be factory installed: (duct flanges); (discharge louvers [horizontal] [horizontal and vertical]); (convenience outlet); (firestat); (discharge temperature low limit), (over/under voltage or phase loss protection); (high ambient limit); (high, low, or high and low gas pressure switches); (heat section condensate drain); and (relays).

The following accessories will be provided: horizontal or vertical vent/combustion air kit; (downturn nozzle [25-65° with or without vertical louvers] [50-90° with or without vertical louvers]); (thermostat selection to match all analog control systems), (gas pressure regulator); (remote console); and (fused disconnect switch).

CERTIFICATIONS

The packaged heating and makeup air system shall be design-certified to ANSI Z83.8 and CSA 2.6 Standards. The energy usage shall be designed to meet ASHRAE Standard 90.1.

See specific information for sizes and capacities.

Product manufacturer must have minimum of 40 years of experience with separated combustion heating equipment.

REZNOR®

SAMPLE SPECIFICATION
MODEL PDH,
INDOOR, POWER-VENTED HEATING AND MAKEUP AIR UNITS

Provide packaged, indoor heating and makeup air, power-vented units as Reznor® brand equipment. The units shall be the PDH series, minimum 81% efficiency, designed for ceiling suspension or slab or floor mounting. The gas furnace is to be arranged for ducted flue gas exhaust.

CONTROLS

All units shall be equipped for use with (natural gas) (propane); (115/1) (208/1) (230/1) (208/3) (230/3) (460/3) (575/3) supply voltage with (unit mounted, non-fusible, lockable disconnect switch); 24-volt control transformer; protective air proving switch; resiliently mounted isolated venter motor; and a high temperature limit control. Operation shall be controlled through an integrated circuit board. The circuit board shall monitor heater operation and have LED diagnostic indicator lights to identify abnormalities in control functions. Unit shall have a (one-stage gas control) (two-stage gas control) (two-stage gas makeup air control) (33% low fire capacity makeup air control) (2-stage heating/3-stage cooling digital control [space temperature] [discharge temperature]); or (electronic modulation heating 25% low fire - natural gas, 40% low fired - propane/3-stage cooling digital control [space temperature] [discharge temperature]).

HEATING SECTION

The gas furnace shall have a Reznor TCORE2® heat exchanger and single burner combustion system. The heat exchanger shall be of (aluminized) (409 stainless) (316 stainless) steel.

The furnace shall be equipped with all required safety elements.

BLOWER SECTION

The (single wall, [uninsulated] [insulated]) (double wall [insulated] [high density insulated]) blower section shall be supplied with (horizontal supply opening) (screened horizontal supply opening) (horizontal supply air inlet opening with duct flanges) (screened horizontal supply air inlet opening with duct flanges). The blower section shall include an adjustable belt-driven vibration isolated centrifugal blower and (open dripproof) (totally enclosed) (premium efficiency) [rubber] [spring] vibration isolated motor with (contactor) (motor starter) (variable frequency drive). (Unit may include [1" or 2" disposable] [1" or 2" permanent] [1", 2", or 4" pleated] filters).

OPTIONAL ACCESSORIES

Packaged unit may have factory-attached modules:

- (mixing box for inlet air with selection of outside and return entering air configurations [top, bottom, rear combinations with or without screens], outside or outside and return air dampers [manual, 2-position, 3-position, modulating, DDC controlled] with direct-coupled 24VAC actuators and a variety of controls [unit mounted or remote dial; mixed air controller with or without warm-up; building pressure null switch]. Construction of mixing box will be (single wall, [uninsulated] [insulated]) (double wall, [insulated] [high density insulated]).

- (draw-through cooling coil module with factory installed [dx coil] [chilled water coil]. Construction of cooling coil module will be double wall with [standard (R value 3.8)] [high density (R value 4.4)] insulation). (Cooling coil cabinet to include UVC germicidal lamp for neutralization of VOCs and micro-organizms for improved IAQ).

Option AU7L and AU7R shall include a dedicated compressor and refrigeration circuit using full condenser reheat or total heat of rejection in the supply air stream. All methods of reheat shall comply with ASHRAE 90.1 requirements. Dual compressor systems shall be designed to provide a minimum three-stage capacity increment using integrated DDC control. The refrigerant circuits shall include thermal expansion valves with external equalizers. Service gage ports and refrigerant line filter dryers are factory installed as standard. Precooling coils shall not exceed one row depth to minimize air pressure drop. The reheat coil position shall include a minimum separation of 4" from the cooling coil to eliminate re-evaporation of cooling coil condensate. Modulating capacity control not required unless necessary to maintain proper discharge air control.

- (evaporative cooling module. Construction of evaporative cooling cabinet will be [white pre-painted] [300 series stainless steel] with 300 series stainless steel reservoir [and (1") (2") aluminum pre-filter]. Water system to include [recirculating float and pump] [AquaSaver™ microprocessor-based timed distribution system]. Evaporative media to consist of [6"] [12"] [Glacier-Core®] [Glas-dek® UL900 Class I noncombustible] media.

- outside air only damper option.

CABINET

The packaged system shall have a pre-coat RAL 1001 white paint finish. Finish shall be a minimum 80 gloss on G30 galvanized steel.

Cabinet shall have through-the-base utility knockouts. Control, burner, and blower service compartment doors shall be hinged. Blower door hardware shall be heavy duty stainless. Control and burner door hardware shall have heavy duty external hardware.

The following features will be factory installed: (duct flanges); (discharge louvers [horizontal] [horizontal and vertical]); (convenience outlet); (firestat); (discharge temperature low limit), (over/under voltage or phase loss protection); (high ambient limit); (high, low, or high and low gas pressure switches); (heat section condensate drain); and (relays).

The following accessories will be provided: (vent cap); (downturn nozzle [25-65° with or without vertical louvers] [50-90° with or without vertical louvers]); (thermostat selection to match all analog control systems), (gas pressure regulator); (remote console); and (fused disconnect switch).

CERTIFICATIONS

The packaged heating and makeup air system shall be design-certified to ANSI Z83.8 and CSA 2.6 Standards. The energy usage shall be designed to meet ASHRAE Standard 90.1.

See specific information for sizes and capacities.

Product manufacturer must have minimum of 40 years of experience with makeup air heating equipment.

REZNOR®

SAMPLE SPECIFICATION
MODEL RDH
ROOFTOP, POWER-VENTED HEATING AND MAKEUP AIR UNITS

Provide packaged, rooftop heating and makeup air, power-vented units as Reznor® brand equipment. The units shall be the RDH series, minimum 81% efficiency, designed for rooftop or slab mounting.

CONTROLS

All units shall be equipped for use with (natural gas) (propane); (115/1) (208/1) (230/1) (208/3) (230/3) (460/3) (575/3) supply voltage with (unit mounted, non-fusible, lockable disconnect switch); 24-volt control transformer; protective air proving switch; resiliently mounted isolated venter motor; and a high temperature limit control. Operation shall be controlled through an integrated circuit board. The circuit board shall monitor heater operation and have LED diagnostic indicator lights to identify abnormalities in control functions. Unit shall have a (one-stage gas control) (two-stage gas control) (two-stage gas makeup air control) (33% low fire capacity makeup air control) (2-stage heating/3-stage cooling digital control [space temperature] [discharge temperature]); or (electronic modulation heating 25% low fire - natural gas, 40% low fired - propane/3-stage cooling digital control [space temperature] [discharge temperature]).

HEATING SECTION

The gas furnace shall have a Reznor TCORE2® heat exchanger and single burner combustion system. The heat exchanger shall be of (aluminized) (409 stainless) (316 stainless) steel.

The furnace shall be equipped with all required safety elements.

BLOWER SECTION

The double wall (insulated) (high density insulated) blower section shall be supplied with (horizontal supply opening) (horizontal supply air inlet opening with duct flanges). The blower section shall include an adjustable belt-driven centrifugal blower and (open dripproof) (totally enclosed) (premium efficiency) [rubber] [spring] vibration isolated motor with (contactor) (motor starter) (variable frequency drive). (Unit may include [1" or 2" disposable] [1" or 2" permanent] [1", 2", or 4" pleated] filters) (100% O/A weatherhood with rain baffles will be supplied for field installation).

OPTIONAL ACCESSORIES

Packaged unit may have factory-attached modules:

- (mixing box for inlet air with selection of outside and return entering air configurations [bottom, rear combinations with or without screens], outside or outside and return air dampers [(30% O/A hood for use with mixing box) (100% O/A weatherhood with rain baffles will be supplied for field installation)] [manual, 2-position, 3-position, modulating, DDC controlled] with direct-coupled 24VAC actuators and a variety of controls [unit mounted or remote dial; mixed air controller with or without warm-up; building pressure null switch]. Construction of mixing box will be double wall [insulated] [high density insulated])

- (draw-through cooling coil module with factory installed [dx coil] [chilled water coil]. Construction of cooling coil module will be double wall with [standard (R value 3.8)] [high density (R value 4.4)] insulation). (Cooling coil cabinet to include UVC germicidal lamp for neutralization of VOCs and micro-organizms for improved IAQ).

Option AU7L and AU7R shall include a dedicated compressor and refrigeration circuit using full condenser reheat or total heat of rejection in the supply air stream. All methods of reheat shall comply with ASHRAE 90.1 requirements. Dual compressor systems shall be designed to provide a minimum three-stage capacity increment using integrated DDC control. The refrigerant circuits shall include thermal expansion valves with external equalizers. Service gage ports and refrigerant line filter dryers are factory installed as standard. Precooling coils shall not exceed one row depth to minimize air pressure drop. The reheat coil position shall include a minimum separation of 4" from the cooling coil to eliminate re-evaporation of cooling coil condensate. Modulating capacity control not required unless necessary to maintain proper discharge air control.

- (downturn plenum cabinet. Construction of downturn plenum will be double wall with [standard (R value 3.8)] [high density (R value 4.4)] insulation).

- (evaporative cooling module. Construction of evaporative cooling cabinet will be [white pre-painted] [300 series stainless steel] with 300 series stainless steel reservoir [and (1") (2") aluminum pre-filter]. Water system to include [recirculating float and pump] [AquaSaver™ microprocessor-based timed distribution system]. Evaporative media to consist of [6"] [12"] [Glacier-Core®] [Glas-dek® UL900 Class I noncombustible] media.

- outside air damper only option.

CABINET

The packaged system shall have a pre-coat RAL 9001 white paint finish. Finish shall be a minimum 60 gloss. with a G90 substrate. Finish shall meet ASTM B117 specifications for salt spray at 1,000 hours.

Cabinet shall have through-the-base electrical supply knockout. Control, burner, and blower service compartment doors shall be hinged. Blower door hardware shall be heavy duty stainless. Control and burner door hardware shall have heavy duty external hardware.

The following optional features will be factory installed: (duct flanges); (convenience outlet); (firestat); (discharge temperature low limit), (over/under voltage or phase loss protection); (high ambient limit); (high, low, or high and low gas pressure switches); (heat section condensate drain); and (relays).

The following accessories will be provided: (vertical vent extension kit); (thermostat selection to match all analog control systems), (gas pressure regulator); (remote console); and (fused disconnect switch) (16" roof curb) ([100% O/A weatherhood with rain baffles]) (compatible energy recovery module with appropriate wiring connections) (photoelectric air duct smoke detector); (matching energy recovery module).

CERTIFICATIONS

The packaged heating and makeup air system shall be design-certified to ANSI Z83.8 and CSA 2.6 Standards. The energy usage shall be designed to meet ASHRAE Standard 90.1.

REZNOR®

SAMPLE SPECIFICATION
MODEL PEH,
INDOOR, ELECTRIC HEATING AND MAKEUP AIR UNITS

Provide packaged, indoor heating and makeup air units as Reznor® brand equipment. The units shall be the PEH series, designed for ceiling suspension or slab or floor mounting. .

CONTROLS

All units shall be equipped for electric heat; (208/1) (230/1) (208/3) (230/3) (460/3) (575/3) supply voltage with (unit mounted, non-fusible, lockable disconnect switch); 24-volt control transformer; protective air proving switch; and a high temperature limit control. Unit shall have a (one-stage heat control for recirculating air) (two-stage heat control for [recirculating air] [intermittent makeup air]) (2-stage heating/3-stage cooling digital control [space temperature] [discharge temperature]); or (SCR electronic modulation heating /3-stage cooling digital control [space temperature] [discharge temperature]).

HEATING SECTION

Unit shall include an electric résistance heating section using open element with insulated ceramic bushing, fuses, contactors, auto reset high temperature limit switch and other necessary safety devices. Provide capacity sizes and staged/modulating control as shown on the plans.The furnace shall be equipped with all required safety elements.

BLOWER SECTION

The (single wall, [uninsulated] [insulated]) (double wall [insulated] [high density insulated]) blower section shall be supplied with (horizontal supply opening) (screened horizontal supply opening) (horizontal supply air inlet opening with duct flanges) (screened horizontal supply air inlet opening with duct flanges). The blower section shall include an adjustable belt-driven (rubber) (spring) vibration isolated centrifugal blower and (open drip-proof) (totally enclosed) (premium efficiency) [rubber] [spring] vibration isolated motor with (contactor) (motor starter) (variable frequency drive). (Unit may include [1” or 2” disposable] [1” or 2” permanent] [1”, 2”, or 4” pleated] filters).

OPTIONAL ACCESSORIES

Packaged unit may have factory-attached modules:

- (mixing box for inlet air with selection of outside and return entering air configurations [top, bottom, rear combinations with or without screens], outside or outside and return air dampers [manual, 2-position, 3-position, modulating, DDC controlled] with direct-coupled 24VAC actuators and a variety of controls [unit mounted or remote dial; mixed air controller with or without warm-up; building pressure null switch]. Construction of mixing box will be (single wall, [uninsulated] [insulated]) (double wall, [insulated] [high density insulated]).

- (draw-through cooling coil module with factory installed [dx coil] [chilled water coil]. Construction of cooling coil module will be double wall with [standard (R value 3.8)] [high density (R value 4.4)] insulation). (Cooling coil cabinet to include UVC germicidal lamp for neutralization of VOCs and micro-organizms for improved IAQ).

Option AU7L and AU7R shall include a dedicated compressor and refrigeration circuit using full condenser reheat or total heat of rejection in the supply air stream. All methods of reheat shall comply with ASHRAE 90.1 requirements. Dual compressor systems shall be designed to provide a minimum three-stage capacity increment using integrated DDC control. The refrigerant circuits shall include thermal expansion valves with external equalizers. Service gage ports and refrigerant line filter dryers are factory installed as standard. Precooling coils shall not exceed one row depth to minimize air pressure drop. The reheat coil position shall include a minimum separation of 4” from the cooling coil to eliminate re-evaporation of cooling coil condensate. Modulating capacity control not required unless necessary to maintain proper discharge air control.

- (evaporative cooling module. Construction of evaporative cooling cabinet will be [white pre-painted] [300 series stainless steel] with 300 series stainless steel reservoir [and (1”) (2”) aluminum pre-filter]. Water system to include [recirculating float and pump] [AquaSaver™ microprocessor-based timed distribution system]. Evaporative media to consist of [6”] [12”] [Glacier-Core®] [Glas-dek® UL900 Class I noncombustible] media.

CABINET

The packaged system shall have a pre-coat RAL 1001 white paint finish. Finish shall be a minimum 80 gloss on G30 galvanized steel.

Cabinet shall have through-the-base electrical supply knockout. Control, burner, and blower service compartment doors shall be hinged. Blower door hardware shall be heavy duty stainless. Control and burner door hardware shall have heavy duty external hardware. Air flow outlet shall be provided with discharge duct flange.

The following features will be factory installed: (convenience outlet); (firestat); (discharge temperature low limit), (over/under voltage or phase loss protection); (high ambient limit); and (relays).

The following accessories will be provided: (thermostat selection to match all analog control systems), (remote console); and (fused disconnect switch).

CERTIFICATIONS

The packaged heating and makeup air system shall be design-certified to ANSI Z83.8 and CSA 2.6 Standards. The energy usage shall be designed to meet ASHRAE Standard 90.1.

See specific information for sizes and capacities.

Product manufacturer must have minimum of 40 years of experience with makeup air heating equipment.

REZNOR®

SAMPLE SPECIFICATION
MODEL REH
ROOFTOP, ELECTRIC HEATING AND MAKEUP AIR UNITS

Provide packaged, rooftop heating and makeup air units as Reznor® brand equipment. The units shall be the REH series, designed for rooftop or slab mounting.

CONTROLS

All units shall be equipped for electric heat; (208/1) (230/1) (208/3) (230/3) (460/3) (575/3) supply voltage with (unit mounted, non-fusible, lockable disconnect switch); 24-volt control transformer; protective air proving switch; and a high temperature limit control. Unit shall have a (one-stage heat control for recirculating air) (two-stage heat control for [recirculating air] [intermittent makeup air]) (2-stage heating/3-stage cooling digital control [space temperature] [discharge temperature]); or (SCR electronic modulation heating /3-stage cooling digital control [space temperature] [discharge temperature]).

HEATING SECTION

Unit shall include an electric résistance heating section using open element with insulated ceramic bushing, fuses, contactors, auto reset high temperature limit switch and other necessary safety devices. Provide capacity sizes and staged/modulating control as shown on the plans.

The furnace shall be equipped with all required safety elements.

BLOWER SECTION

The double wall (insulated) (high density insulated) blower section shall be supplied with (horizontal supply opening) (horizontal supply air inlet opening with duct flanges). The blower section shall include an adjustable belt-driven (rubber) (spring) vibration isolated centrifugal blower and (open dripproof) (totally enclosed) (premium efficiency) [rubber] [spring] vibration isolated motor with (contactor) (motor starter) (variable frequency drive). (Unit may include [1” or 2” disposable] [1” or 2” permanent] [1”, 2”, or 4” pleated] filters) (100% O/A weatherhood with rain baffles will be supplied for field installation).

OPTIONAL ACCESSORIES

Packaged unit may have factory-attached modules:

- (mixing box for inlet air with selection of outside and return entering air configurations [bottom, rear combinations with or without screens], outside or outside and return air dampers [(30% O/A hood for use with mixing box) (100% O/A weatherhood with rain baffles will be supplied for field installation)] [manual, 2-position, 3-position, modulating, DDC controlled] with direct-coupled 24VAC actuators and a variety of controls [unit mounted or remote dial; mixed air controller with or without warm-up; building pressure null switch]. Construction of mixing box will be double wall [insulated] [high density insulated])

- (draw-through cooling coil module with factory installed [dx coil] [chilled water coil]. Construction of cooling coil module will be double wall with [standard (R value 3.8)] [high density (R value 4.4)] insulation). (Cooling coil cabinet to include UVC germicidal lamp for neutralization of VOCs and micro-organizms for improved IAQ).

Option AU7L and AU7R shall include a dedicated compressor and refrigeration circuit using full condenser reheat or total heat of rejection in the supply air stream. All methods of reheat shall comply with ASHRAE 90.1 requirements. Dual compressor systems shall be designed to provide a minimum three-stage capacity increment using integrated DDC control. The refrigerant circuits shall include thermal expansion valves with external equalizers. Service gage ports and refrigerant line filter dryers are factory installed as standard. Precooling coils shall not exceed one row depth to minimize air pressure drop. The reheat coil position shall include a minimum separation of 4” from the cooling coil to eliminate re-evaporation of cooling coil condensate. Modulating capacity control not required unless necessary to maintain proper discharge air control.

- (downturn plenum cabinet. Construction of downturn plenum will be double wall with [standard (R value 3.8)] [high density (R value 4.4)] insulation).

- (evaporative cooling module. Construction of evaporative cooling cabinet will be [white pre-painted] [300 series stainless steel] with 300 series stainless steel reservoir [and (1”) (2”) aluminum pre-filter]. Water system to include [recirculating float and pump] [AquaSaver™ microprocessor-based timed distribution system]. Evaporative media to consist of [6”] [12”] [Glacier-Core®] [Glas-dek® UL900 Class I noncombustible] media.

CABINET

The packaged system shall have a pre-coat RAL 9001 white paint finish. Finish shall be a minimum 60 gloss. with a G90 substrate Finish shall meet ASTM B117 specifications for salt spray at 1,000 hours.

Cabinet shall have through-the-base electrical supply knockout. Control, burner, and blower service compartment doors shall be hinged. Blower door hardware shall be heavy duty stainless. Control and burner door hardware shall have heavy duty external hardware. Air flow outlet shall be provided with discharge duct flange.

The following optional features will be factory installed: (convenience outlet); (firestat); (discharge temperature low limit), (over/under voltage or phase loss protection); (high ambient limit); and (relays).

The following accessories will be provided: (thermostat selection to match all analog control systems), (remote console); and (fused disconnect switch) (16” roof curb) ([100% O/A weatherhood with rain baffles]) (compatible energy recovery module with appropriate wiring connections) (photoelectric air duct smoke detector).

CERTIFICATIONS

The packaged heating and makeup air system shall be design-certified to ANSI Z83.8 and CSA 2.6 Standards. The energy usage shall be designed to meet ASHRAE Standard 90.1.

See specific information for sizes and capacities.

Product manufacturer must have minimum of 40 years of experience with makeup air heating equipment.

REZNOR®

MODEL CAUA

INDOOR, GAS-FIRED, POWER-VENTED, SEPARATED/COMBUSTION, UPFLOW HEATING SYSTEM

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

DESCRIPTION

The Model CAUA Series gas-fired, upflow, blower-type, power-vented, separated-combustion heaters are available in six sizes ranging from 150,000 to 400,000 BTUH gas input for use with either natural or propane gas. **Sizes up to 300 are designed to fit through 3' doorway. Sizes 350 and 400 fit through double doors.** The Model CAUA line of heaters is design-certified by the Canadian Standards Association (CSA) for installation in the U.S. and Canada.

Standard functional 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.

The unit is designed to be installed either as a separated-combustion power-vented system or as a standard power-vented system. As a separated-combustion unit, combustion air is ducted 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.

Standard Model CAUA units are floor-mounted, vertical heaters designed to provide a "heated" environment using return supply air flowing from bottom to top. The top of the unit has a discharge air opening with a flanged duct connection. **With the addition of an optional cased cooling coil (Model ACU), the blower(s) can also be used to provide a "cooled" environment. The cooling capacity ranges from 60 to 180 MBH (5 to 15 tons).** Standard airflow capacity is for 1.0" w.c. ESP; optional drives provide airflow capacity up to 1.5" w.c. ESP on Sizes 150 and 200 and 2.0" w.c. ESP on Sizes 250 - 400.

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.

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 return airflow from bottom to top
- 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
- Two-stage combination gas valve
- Adjustable belt drives for up to 2.0" ESP with open drip-proof, totally enclosed, or premium efficiency motor
- 208 single phase supply voltage
- 208/230/460/575 three phase supply voltage
- Economizer controls

REZNOR®

MODEL CAUA (cont'd)

OPTIONAL FEATURES - Field Installed

- Model ACU cased cooling coil
  - ♦ Cooling range from 60 to 180 MBH (5 to 15 tons)
  - ♦ Sizes 90 to 180 are two stage cooling
- 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 with Optional Belt Drive		2465@1.5"	3290@1.5"	4115@1.8"	4935@2.0"	5760@2.0"	6580@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

NOTE: For additional technical data, go to www.RezSpec.com

For inlet air options and damper arrangements, search for "cauainletairoptions" (no spaces).

For cooling coil typical wiring and piping, search for "cauapipingwiring" (no spaces).

For base mount cabinet or discharge air plenum, search for "cauabasemountdischargeplenum" (no spaces).

For filter options, search for "cauafilter" (no spaces).

For coil options, search for "cauacoiloptions.pdf" (no spaces)

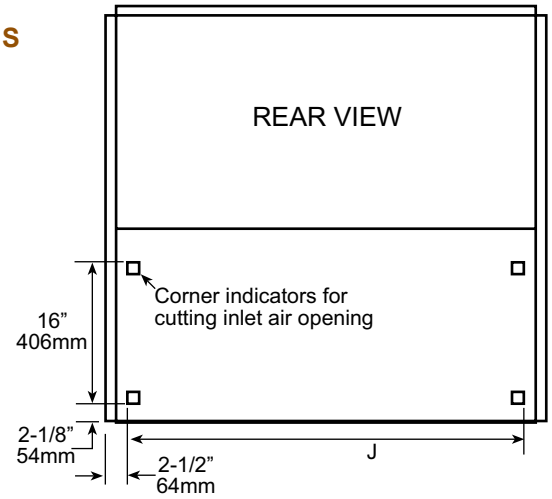
***IF the heater is being installed as a separated-combustion power-vented unit, selection of either a horizontal or vertical concentric adapter combustion air/vent kit is *required*. Or, IF the heater is being installed as a power-vent only unit, a vent cap is *required*.**

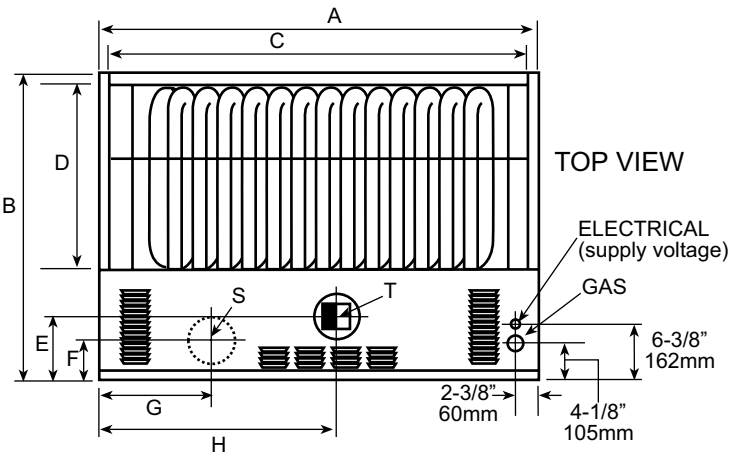
REZNOR®

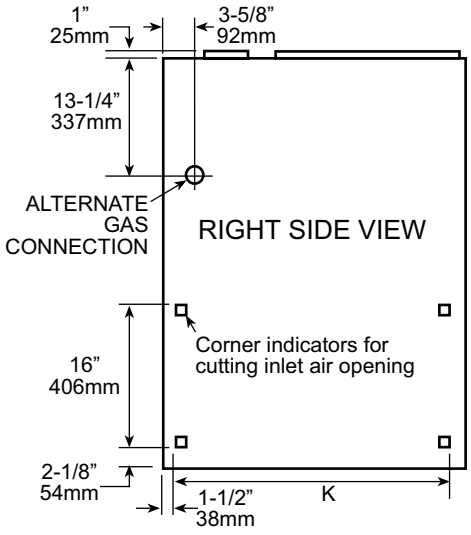
MODEL CAUA (cont'd)

DIMENSIONS

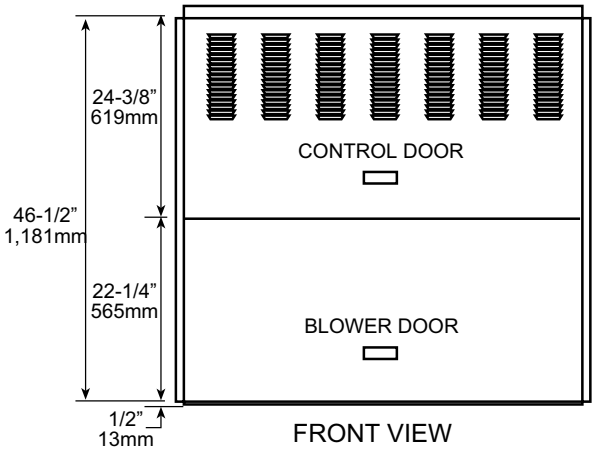
±1/8" (3mm)



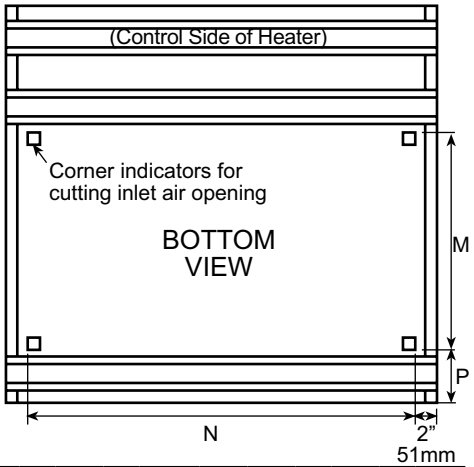




Required Clearances (All Sizes)		
	inches	**mm**
Right Side	0	0
Left Side	0	0
Front	36	914
Rear	0	0
Bottom	0	0
Flue Connector	6	152
Top	1	25



Dimension Key	
C x D	Plenum Opening
S	Combustion Air Cutout
T	Venter Opening



Air Opening Dimensions		
Supply Air (Discharge with duct flange)		C x D
Inlet Air Openings (location selected by installer)		
	Left Side of the Heater	K x 16 (406)
	Right Side of the Heater	K x 16 (406)
	Rear of the Heater	J x 16 (406)

	A		B		C		D		E		F		G		H		J		K		M		N		P		S		T	
Size	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.

REZNOR®

AIR FLOW PRESSURE DROPS
APPLIES TO MODEL CAUA

STATIC PRESSURE DROPS (inches w.c.)

Size	CFM	Small Filt Cab		Side Filt Cab		Rear Filt 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 Filt Cab		Side Filt Cab		Rear Filt 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 Filt Cab		Side Filt Cab		Rear Filt 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		

For more pressure drop data or other blower data, go to www.RezSpec.com , and search for "cauablowerdata" (no spaces).

REZNOR®

AIR DELIVERY - CFM

Standard Unit with Direct Drive Blower(s)

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

Motor/Horsepower/Voltage Selection and Starter Requirement Chart

Motor	Option No.	Voltage HP	RPM	208/1/60 AK2	230/1/60 AK3	208/3/60 AK5	230/3/60 AK6	460/3/60 AK7	575/3/60 AK8
Open Drippproof 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]
	AL10	5	3,600	X[C D]	X[C D]	X[C D]	X[C D]	X[C D]	X[C D]
Totally Enclosed Motor for Belt Drive	**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]
	AL27	5	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	**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]
	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)

REZNOR®

RPM/BHP CHART

APPLIES TO MODEL SERIES CAUA (with optional belt drive)

CAUA 150 with (1) - 12"x9" Class 1 Blower with Optional Adjustable Belt Drive

TEMP RISE		Total Adjusted Pressure Drop ("W.C.)																	
		0.0		0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6	
°F	CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
75	1481	433	0.16	548	0.22	646	0.29	734	0.35	--	--	--	--	--	--	--	--	--	--
70	1587	465	0.20	573	0.26	667	0.33	751	0.41	--	--	--	--	--	--	--	--	--	--
65	1709	502	0.24	603	0.32	693	0.40	773	0.48	849	0.55	--	--	--	--	--	--	--	--
60	1852	543	0.31	637	0.40	723	0.48	800	0.56	872	0.64	940	0.73	--	--	--	--	--	--
55	2020	589	0.40	676	0.48	757	0.57	830	0.67	899	0.76	964	0.85	1026	0.95	--	--	--	--
50	2222	648	0.53	727	0.63	802	0.73	872	0.83	936	0.92	998	1.02	1057	1.12	1114	1.23	--	--
45	2469	721	0.73	793	0.84	862	0.95	927	1.06	988	1.17	1046	1.28	1101	1.39	1154	1.49	1206	1.62

CAUA 200 with (1) - 12"x12" Class 1 Blower with Optional Adjustable Belt Drive

TEMP RISE		Total Adjusted Pressure Drop ("W.C.)																							
		0.0		0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.5		1.6		1.8		2.0	
°F	CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
75	1975	--	--	538	0.29	637	0.35	727	0.47	810	0.58	--	--	--	--	--	--	--	--	--	--	--	--	--	--
70	2116	--	--	561	0.35	656	0.46	743	0.54	823	0.64	898	0.73	--	--	--	--	--	--	--	--	--	--	--	--
65	2279	--	--	591	0.41	680	0.54	763	0.62	840	0.72	912	0.84	--	--	--	--	--	--	--	--	--	--	--	--
60	2469	--	--	625	0.52	710	0.62	788	0.73	862	0.84	931	0.96	997	1.09	1061	1.22	--	--	--	--	--	--	--	--
55	2694	--	--	666	0.63	745	0.74	819	0.87	888	0.99	955	1.12	1018	1.25	1079	1.39	1108	1.45	1137	1.52	--	--	--	--
50	2963	--	--	720	0.81	792	0.95	861	1.07	927	1.22	990	1.35	1050	1.49	1108	1.64	1136	1.72	1163	1.72	1217	1.93	1270	2.11
45	3292	--	--	784	1.09	850	1.23	913	1.38	974	1.52	1033	1.67	1089	1.83	1144	1.98	1171	2.01	1197	2.15	1248	2.29	1298	2.46

CAUA 250 with (2) - 10"x10" Class 1 Blowers with Optional Adjustable Belt Drive

TEMP RISE		Total Adjusted Pressure Drop ("W.C.)																							
		0.0		0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.5		1.6		1.8		2.0	
°F	CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
75	2469	497	0.23	633	0.35	759	0.45	830	0.59	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
70	2646	531	0.28	660	0.40	779	0.53	870	0.68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
65	2849	567	0.35	687	0.47	799	0.68	905	0.74	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
60	3086	616	0.44	728	0.57	832	0.72	933	0.87	1018	1.11	1107	1.37	--	--	--	--	--	--	--	--	--	--	--	--
55	3367	671	0.57	775	0.72	872	0.87	965	1.04	1054	1.21	1130	1.48	1212	1.71	--	--	--	--	--	--	--	--	--	--
50	3704	739	0.78	843	0.91	923	1.08	1009	1.25	1092	1.43	1168	1.67	1247	1.87	1315	2.16	1344	2.29	--	--	--	--	--	--
45	4115	840	1.06	924	1.22	1002	1.45	1077	1.58	1150	1.78	1222	2.07	1292	2.21	1360	2.46	1384	2.53	1443	2.64	1490	2.89	--	--

CAUA 300 with (2) - 10"x10" Class 1 Blowers with Optional Adjustable Belt Drive

TEMP RISE		Total Adjusted Pressure Drop ("W.C.)																							
		0.0		0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.5		1.6		1.8		2.0	
°F	CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
75	2963	528	0.32	654	0.45	765	0.58	871	0.73	970	0.88	--	--	--	--	--	--	--	--	--	--	--	--	--	--
70	3175	566	0.39	685	0.53	790	0.67	890	0.83	986	0.98	--	--	--	--	--	--	--	--	--	--	--	--	--	--
65	3419	605	0.50	718	0.64	817	0.78	911	0.95	1002	1.11	1090	1.28	--	--	--	--	--	--	--	--	--	--	--	--
60	3704	658	0.63	764	0.79	856	0.95	944	1.11	1030	1.29	1113	1.47	1192	1.65	--	--	--	--	--	--	--	--	--	--
55	4040	719	0.81	816	0.99	903	1.17	985	1.34	1064	1.53	1143	1.73	1218	1.92	1291	2.13	1326	2.22	--	--	--	--	--	--
50	4444	792	1.09	881	1.29	962	1.47	1038	1.67	1111	1.87	1183	2.07	1254	2.29	1323	2.51	1357	2.62	1390	2.73	1455	3.15	--	--
45	4938	877	1.57	960	1.73	1034	1.94	1104	2.15	1171	2.37	1237	2.59	1302	2.81	1366	3.05	1398	3.17	1429	3.29	1491	3.53	1551	3.78

CAUA 350 with (2) - 12"x9" Class 1 Blowers with Optional Adjustable Belt Drive

TEMP RISE		Total Adjusted Pressure Drop ("W.C.)																							
		0.0		0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.5		1.6		1.8		2.0	
°F	CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
75	3457	472	0.45	575	0.61	668	0.76	751	0.91	827	1.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--
70	3704	504	0.55	601	0.72	690	0.88	770	1.05	843	1.21	--	--	--	--	--	--	--	--	--	--	--	--	--	--
65	3989	542	0.68	632	0.86	716	1.05	793	1.22	864	1.40	931	1.59	--	--	--	--	--	--	--	--	--	--	--	--
60	4321	589	0.87	672	1.07	751	1.27	825	1.45	893	1.65	957	1.84	1018	2.03	--	--	--	--	--	--	--	--	--	--
55	4714	644	1.13	720	1.34	794	1.56	864	1.77	929	1.98	990	2.19	1048	2.39	1104	2.62	--	--	--	--	--	--	--	--
50	5185	707	1.57	777	1.74	845	2.01	910	2.21	971	2.44	1030	2.67	1085	2.91	1138	3.14	1164	3.26	1190	3.43	--	--	--	--
45	5761	785	2.07	848	2.32	910	2.59	970	2.84	1027	3.10	1082	3.37	1135	3.62	1185	3.87	1210	4.01	1234	4.14	1281	4.39	1327	4.64

CAUA 400 with (2) - 12"x9" Class 1 Blowers with Optional Adjustable Belt Drive

TEMP RISE		Total Adjusted Pressure Drop ("W.C.)																							
		0.0		0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.5		1.6		1.8		2.0	
°F	CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
75	3951	536	0.66	626	0.84	711	1.04	789	1.19	861	1.36	--	--	--	--	--	--	--	--	--	--	--	--	--	--
70	4233	572	0.81	657	0.99	738	1.19	812	1.38	882	1.57	947	1.77	--	--	--	--	--	--	--	--	--	--	--	--
65	4558	617	0.99	696	1.21	772	1.42	843	1.63	910	1.83	972	2.04	1032	2.24	--	--	--	--	--	--	--	--	--	--
60	4938	670	1.29	743	1.49	814	1.73	882	1.95	945	2.17	1005	2.39	1062	2.61	1117	2.84	--	--	--	--	--	--	--	--
55	5387	728	1.67	795	1.90	860	2.15	924	2.39	985	2.64	1042	2.87	1096	3.11	1149	3.36	1174	3.48	1200	3.61	--	--	--	--
50	5926	803	2.23	863	2.49	924	2.75	983	3.03	1039	3.29	1094	3.56	1146	3.83	1196	4.09	1220	4.22	1244	4.36	1290	4.62	1336	4.91
45	6584	886	2.99	942	3.33	997	3.62	1051	3.92	1104	4.21	1155	4.47	1204	4.72	1251	4.96	--	--	--	--	--	--	--	--

For more pressure drop data or other blower data, go to www.RezSpec.com , and search for "cauablowerdata" (no spaces).

REZNOR®

SAMPLE SPECIFICATIONS
MODEL CAUA,
INDOOR HEATING, COOLING AND VENTILATING SYSTEM

Provide indoor, gas fired, power-vented packaged heating (air conditioning and ventilation) units Model CAUA as manufactured by Reznor®. Unit shall be certified to ANSI and C.G.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 - Model ACU as manufactured by Reznor. Cased cooling coil shall include “A” Coil with Refrigerant, thermal expansion valves, stainless steel drip pan, 3/8” rifled copper tubing with aluminum fins. Cased cooling coil cabinet shall be painted to match heating section.)

HEATING SECTION

Units shall be fitted with orifices to 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 painted cabinet. 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. Cabinet shall have an access panel on the front of the unit for service access.

OPTIONAL ACCESSORIES

(Cabinet shall include a 70/30 mixing box with damper(s) 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, 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 30 years in the commercial/industrial HVAC industry.

REZNOR®

MODEL MASA

Condensing Unit for Reznor Split System

c UL us LISTED

UL1995

DESCRIPTION

The M series condensing units are optimized for use with any of the Reznor 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/PREEVA 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
- Hot gas bypass to evaporator inlet for one or both circuits (hot gas bypass unloads up to 50% of each circuit) - field piping connections required

FIELD-INSTALLED OPTIONS

- Fusible and non-fusible disconnect switches

REZNOR®

Model MASA (cont'd)

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
Hot Gas Bypass Connection Size (inches)	Circuit A	1/2					
	Circuit B	1/2					

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

NOTE: For condenser performance data, go to www.RezSpec.com, and search for "masaperformancedata" (no spaces).

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
	575-3-60	523	632	4.2	36.5	8.5	54.0		1.5	16.3	25
	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
	575-3-60	523	632	4.9	33.0	10.0	78.0		1.5	20.4	30
	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	37.0	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	48.6	70

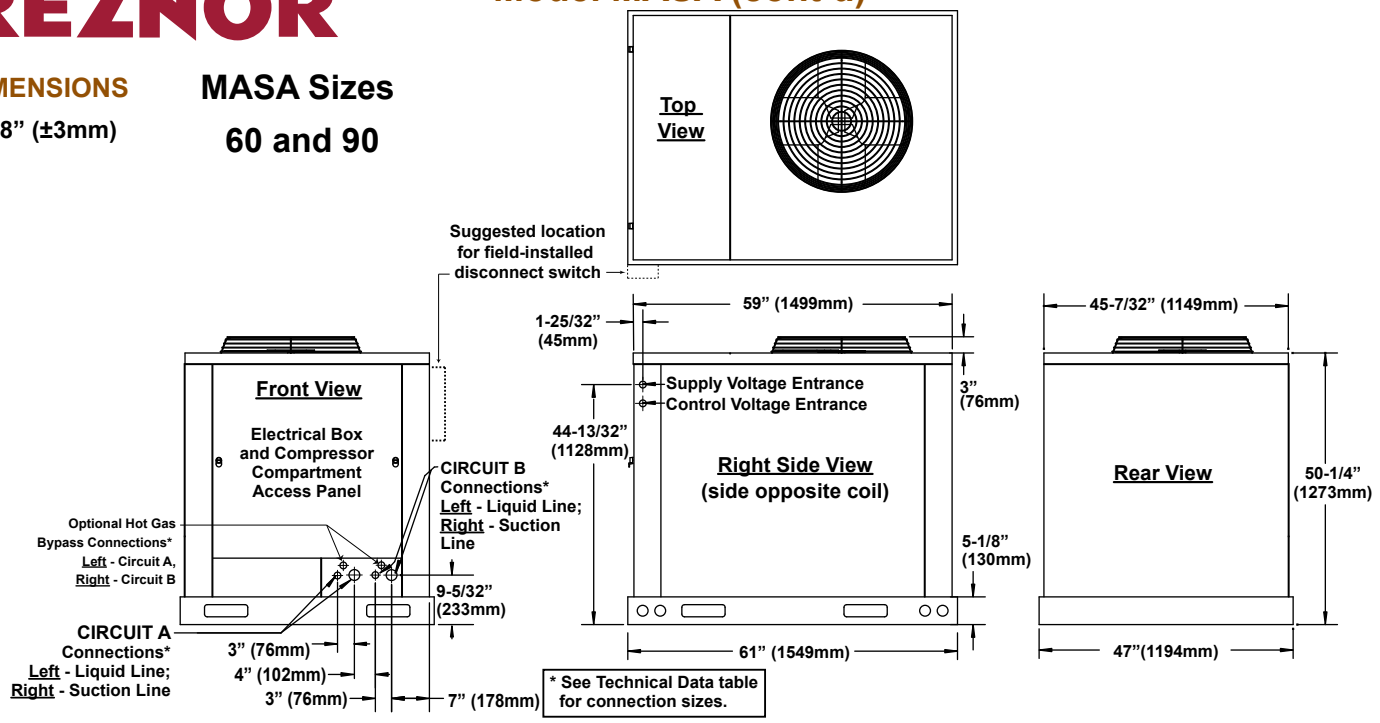
REZNOR®

Model MASA (cont'd)

DIMENSIONS

±1/8" (±3mm)

MASA Sizes 60 and 90

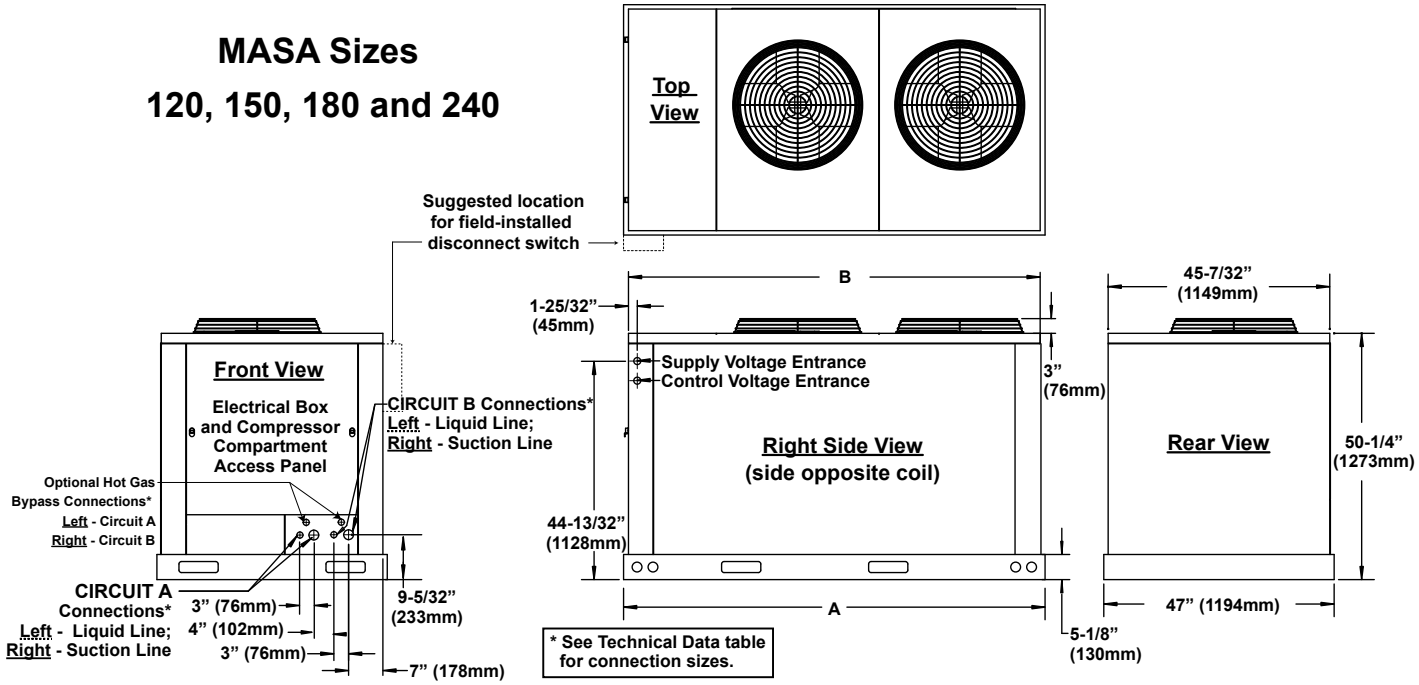


CLEARANCES

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®

R-410A THERMAL EXPANSION VALVES

Thermal Expansion Valves for PREEVA 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 40ºF evaporator temperature with 120 psi pressure drop (across the valve)***

M Series 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] Avg. Soud Pressure Level reflexes a measurement of 5 feet from the unit and is expressed in decibels (dB).

SAMPLE SPECIFICATION

M-Series Condensing Unit

SAMPLE SPECIFICATION

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) (hot gas bypass to evaporator inlet for [one] [both] circuits).

See specific information for sizes and capacities.

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

REZNOR®

FULL LOAD AMP (FLA) TABLE

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®

REZNOR® PRODUCT LIMITED WARRANTY

Thomas & Betts Corporation 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 Thomas & Betts Corporation, 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).

Option XW2 - Extended four (4) year heat exchanger warranty (Models PDH, RDH, SDH and SHH only). Extended warranty on Model SHH requires selection of optional stainless steel heat exchanger.

Option XW3 - Extended nine (9) year heat exchanger warranty (Models PDH, RDH, SDH and SHH only). Extended warranty on Model SHH requires selection of optional stainless steel heat exchanger.

See limitations and exclusions below.

LIMITATIONS AND EXCLUSIONS

Thomas & Betts Corporation's 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 Thomas & Betts 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 Thomas & Betts of a warranted defect within ninety (90) days of its discovery voids Thomas & Betts's 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. Thomas & Betts Corporation shall not be liable for any loss, cost, damage, or expense of any kind arising out of a breach of the warranty. Further, Thomas & Betts Corporation 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 Thomas & Betts 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. THOMAS & BETTS CORPORATION 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 Thomas & Betts Corporation 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®

NOTES

REZNOR®

NOTES

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

REZNOR®

For more information on Reznor HVAC Equipment, contact your local Reznor Representative by calling 800-695-1901.
Or, find us on the internet at www.RezSpec.com

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.

Thomas&Betts

1209 POD OG Form C-SS (Version C.3)