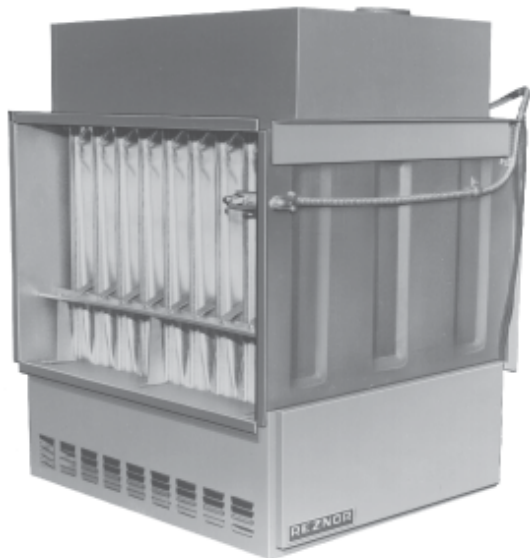


MODEL EEDU/HEEDU

ENERGY EFFICIENT INDOOR, POWER-VENTED, GAS-FIRED DUCT FURNACE FOR COMMERCIAL/INDUSTRIAL USE



ANSI Z83.8



CGA 2.6

DESCRIPTION

Reznor Venturion® EEDU Series Indoor Duct Furnaces were developed to provide an annual fuel use improvement of up to 25% when compared with gravity-vented duct furnaces. The use of a factory-installed power venter, with metered combustion air, limits burner flue losses while reducing the required vent pipe size. A sealed vent product collection chamber, in lieu of a draft diverter, reduces the loss of dilution air from the room in both the on and off cycles.

The Series EEDU duct furnaces are available for use with either natural or propane gas, as specified, in sizes from 75,000 through 400,000 BTUH gas input. They are designed for use as heating components in heating, heating/cooling, or makeup air systems and require a separate blower system for air delivery. The furnace has a Reznor Thermocore® aluminized steel heat exchanger with venturi-design tubes. The die formed burners are of aluminized steel and include flared ports with stainless steel insert.

The EEDU model is approved for temperature rise range of 50° to 90°F and includes “finger-baffles” for proper air distribution at these lower air volumes. The HEEDU model is approved for a range of 20° to 70°F.

Included as standard on the EEDU Series are an intermittent spark pilot and a single-stage 24-volt gas valve. Model EEDU Series units are designed for field connection to a 24-volt thermostat for automatic operation. All required limit and safety controls are provided, including a combustion air pressure switch, which verifies proper vent flow prior to allowing operation of the gas valve.

NOTES:

1. Regulated combination redundant gas valve consists of combination pilot solenoid valve, electric gas valve, pilot filter, pressure regulator, pilot shut-off, and manual shut-off, all in one body. Gas supply pressure must not exceed 0.5 PSI (8 oz. - 14 “W.C.). Minimum inlet pressure for natural gas is 5” W.C. Minimum inlet pressure for propane gas is 11” W.C.
2. For air inlet temperatures below 40°F or temperature rise less than 40°F, an optional stainless steel heat exchanger is recommended.
3. See temperature rise and pressure drop tables.
4. Blower must be placed on entering side of furnace.
5. Approved for installation downstream of an air conditioning coil (optional drain flange, stainless steel heat exchanger, and stainless steel burners are recommended).
6. **Not** approved for residential use.

STANDARD FEATURES

- Orifices for natural gas
- Aluminized steel heat exchanger
- Aluminized steel burners with stainless steel insert
- 120-volt supply voltage
- Factory-installed power venter
- 120-volt limit control
- 24-volt control voltage transformer
- Combustion air pressure switch
- Redundant single-stage combination gas valve (see note 1)
- Spark-ignited intermittent safety pilot with electronic flame supervision
- Burner rack access (pullout drawer)
- Hanger/support angle
- Vertical vent cap - (Canada only)

OPTIONAL FEATURES - FACTORY INSTALLED

- Unit equipped for propane gas
- E-3 (409) stainless steel heat exchanger (see note 2)
- 321 stainless steel heat exchanger (see note 2)
- E-3 (409) stainless steel burners (see note 2)
- E-3 (409) stainless steel drip pan (see note 2)
- Gas Controls
 - Spark-ignited intermittent safety pilot with electronic flame supervision and timed lockout
 - Two-stage gas controls (Not available on size 75 for propane gas)
 - Electronic modulation - 50%-100% firing rate
- Burner air shutters (required for propane gas)
- 208/230-volt 1-phase voltage alternate
- Heat exchanger side panels

OPTIONAL FEATURES - FIELD INSTALLED

- Transformer for 277/460V voltage alternate (used with standard 120V unit)
- Multiple coupling kit (one - five furnaces)
- Condensate drain flange kit
- Vent terminal cap
- 1” pipe hanger kit (includes four free-turning female threaded sockets)
- Manual shut-off valve and union (packaged inside unit)
- Adjustable fan control (bimetal helix type)
- Room override for electronic modulation with ductstat
- Single-stage thermostat (40° to 90°F)
- Two-stage thermostat (40° to 90°F)
- Thermostat guard with locking cover

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Technical Data

Size		75	100	125	140	170	200	225	250	300	350	400
Input Heating Capacity	BTUH	75,000	100,000	125,000	140,000	170,000	200,000	225,000	250,000	300,000	350,000	400,000
	kW	22.0	29.3	36.6	41.0	49.8	58.6	65.9	73.3	87.9	102.6	117.2
Output Heating Capacity (80%) ^A	BTUH	60,000	80,000	100,000	112,000	136,000	160,000	180,000	200,000	240,000	280,000	320,000
	kW	17.6	23.4	29.3	32.8	39.9	46.9	52.8	58.6	70.3	82.1	93.8
Full Load Amps (115V)		2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Unit Control Amps (24V)		0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
EEDU Air Volume Range	cfm	615-1,105	820-1,480	1,025-1,850	1,150-2,065	1,390-2,505	1,635-2,945	1,840-3,315	2,045-3,685	2,455-4,420	2,865-5,160	3,275-5,895
	m ³ /hr	1,045-1,877	1,393-2,514	1,741-3,143	1,954-3,508	2,362-4,256	2,778-5,003	3,126-5,632	3,474-6,261	4,171-7,509	4,867-8,767	5,564-10,015
HEEDU Air Volume Range ^C	cfm	850-2,765	1,135-3,685	1,420-4,605	1,585-5,160	1,790-6,265	2,105-7,370	2,370-8,295	2,630-9,215	3,160-11,060	3,685-12,900	4,210-14,745
	m ³ /hr	1,444-4,698	1,928-6,261	2,413-7,824	2,693-8,767	3,041-10,644	3,576-12,521	4,027-14,093	4,468-15,656	5,369-18,790	6,261-21,916	7,153-25,051
Net Weight	lbs	104	104	126	128	150	172	194	216	262	306	328
	kg	47	47	57	58	68	78	88	98	119	139	149
Ship Weight	lbs	128	128	142	144	168	192	216	240	292	338	362
	kg	58	58	64	65	76	87	98	109	132	153	164
Gas Connection (in.) Natural ^B		1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4	3/4
Venter Outlet Size ^D		4"	4"	4"	4"	4"	4"	5"	5"	6"	6"	6"

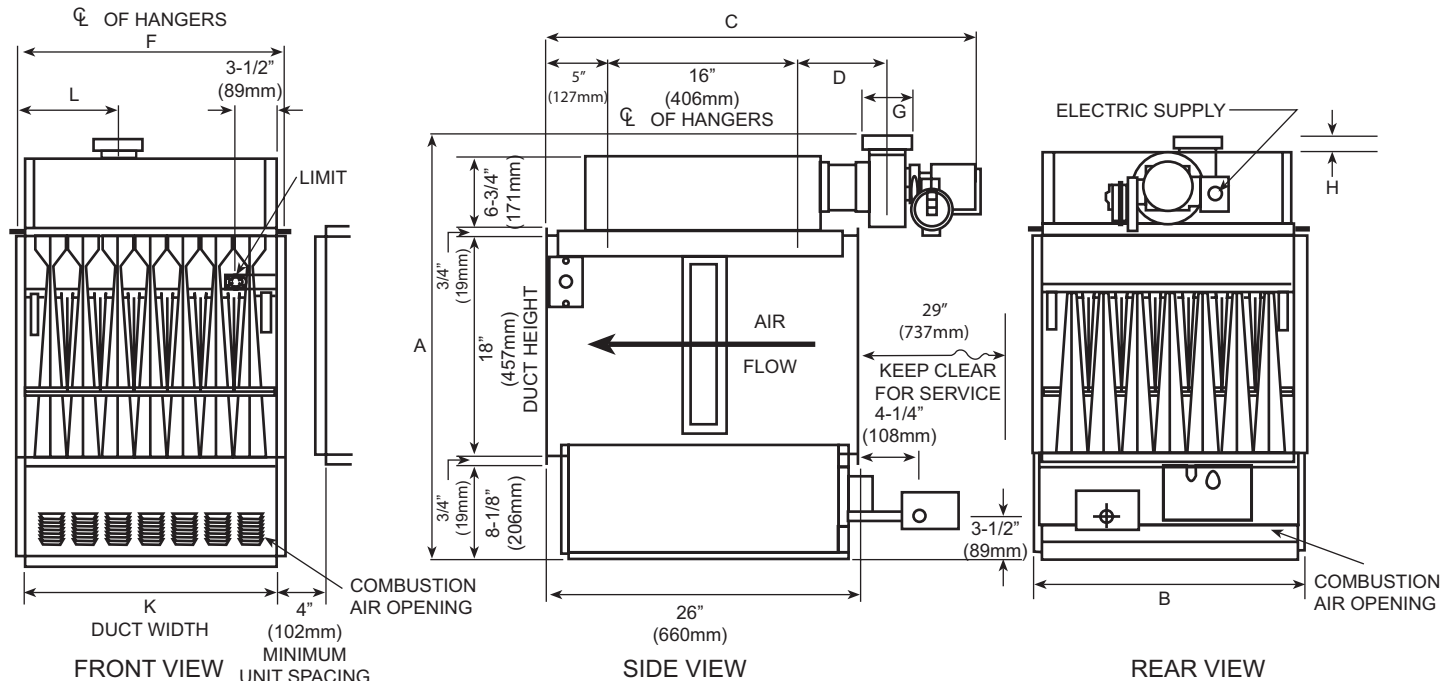
^A In U.S. ratings are for altitudes to 2,000 feet. Above 2,000 feet derate by orifice change, 4% for each 1,000 feet above sea level.

In Canada ratings are for altitudes to 2,000 feet. For high altitude units (2,001-4,500 ft.) derate by 10% of maximum input.

^B Sizes shown are for natural gas connections, NOT supply line size. Propane gas connection is 1/2" for all sizes.

^C Prefix "H" indicates high CFM units without finger baffles.

^D Refer to page 15 for power venting arrangements and wall or roof penetration details.



CLEARANCE FROM COMBUSTIBLES

1. Top, flue connections, front - 6" (152mm)
2. Bottom, sides - 12" (305mm)
3. Back, service access requires 29" (737mm)

Dimensions ±1/8" (3mm)

Size	A		B		C		D		F		G		H		K		L	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
75	35	889	14 1/4	362	35 11/16	906	7 1/4	184	14 5/8	371	4	102	5/8	16	12 1/2	318	4 5/8	117
100	35	889	14 1/4	362	35 11/16	906	7 1/4	184	14 5/8	371	4	102	5/8	16	12 1/2	318	4 5/8	117
125	35	889	17	432	35 11/16	906	7 1/4	184	17 3/8	441	4	102	5/8	16	15 1/4	387	6	152
140	35	889	17	432	35 11/16	906	7 1/4	184	17 3/8	441	4	102	5/8	16	15 1/4	387	6	152
170	35	889	19 3/4	502	35 11/16	906	7 1/4	184	20 1/8	511	4	102	5/8	16	18	457	7 3/8	187
200	35	889	22 1/2	572	35 11/16	906	7 1/4	184	22 7/8	581	4	102	5/8	16	20 3/4	527	8 3/4	222
225	35 3/4	908	25 1/4	641	35 11/16	906	7 1/4	184	25 5/8	651	5	127	1 3/8	35	23 1/2	597	10 1/8	257
250	35 3/4	908	28	711	35 11/16	906	7 1/4	184	28 3/8	721	5	127	1 3/8	35	26 1/4	667	11 1/2	292
300	36	914	33 1/2	851	38 1/8	968	9 9/16	243	33 7/8	860	6	152	1 5/8	41	31 3/4	806	13 7/8	352
350	36	914	39	991	38 1/8	968	9 9/16	243	39 3/8	1000	6	152	1 5/8	41	37 1/4	946	16 5/8	422
400	36	914	44 1/2	1130	38 1/8	968	9 9/16	243	44 7/8	1140	6	152	1 5/8	41	42 3/4	1086	19 3/8	492