

**REZNOR®****MODEL  
FE****GAS-FIRED, POWER-VENTED,  
FAN-TYPE UNIT HEATER FOR  
COMMERCIAL/INDUSTRIAL USE****ANSI Z83.8****CAN/CGA 2.6****DESCRIPTION**

Reznor® Series 100, Model FE gas-fired unit heaters are designed for 80% thermal efficiency and were developed to provide an annual fuel use improvement of up to 25% when compared with gravity-vented unit heaters. The use of a factory-installed power venter, with metered combustion air, limits burner flue losses while reducing vent pipe size. A sealed flue product collection chamber (in place of the draft diverter on a gravity-vented unit), reduces the loss of dilution air from the room in both the on and off cycles.

The Model FE unit heaters use either natural or propane gas, as specified, in sizes from 25,000 through 400,000 BTUH gas input. These units are designed for ceiling suspension with propeller fans for air delivery.

Standard features on the Model FE Series include an intermittent spark pilot and a single-stage, 24-volt gas valve. A terminal strip connector facilitates field connection to a remote 24-volt thermostat for automatic operation. Each unit is provided with a fan control and all required limit safety controls and a combustion air pressure switch that verifies proper vent flow before allowing operation of the gas valve.

These units are approved for installation in The United States and Canada by the Canadian Standards Association (CSA).

**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.**

**STANDARD FEATURES**

- Orifices for natural gas
- Aluminized steel heat exchanger
- Aluminized steel burner rack with stainless steel insert
- Spark-ignited intermittent safety pilot with electronic flame supervision
- Single-stage combination gas valve (field adjustable for high altitude operation)
- 115/1/60 supply voltage
- 115 volt fan motor with internal overload protection
- Fan and limit safety controls
- Differential air pressure switch to verify vent flow
- 24-volt control voltage transformer
- Factory-installed power venter
- Individually adjustable horizontal louvers
- Full safety fan guard
- Terminal strip connector for 24-volt field wiring
- Convenient bottom burner access
- 2-point 3/8"-16 threaded hanger connections
- Vent cap (C.G.A. only)

**OPTIONAL FEATURES - Factory Installed**

- Equipped for propane gas
- Equipped for high altitude (2001-9000 ft)
- E-3 (409) stainless steel heat exchanger and burner
- Two-stage gas control (50% low fire) - Sizes 75-400
- Spark ignited, intermittent safety pilot with timed lockout (required for propane gas)
- Manual summer/winter switch
- Burner air shutters
- 208 single phase supply voltage - Sizes 125-400
- 230 single phase supply voltage - Sizes 100-300
- Totally enclosed 115V motor
- Low ambient fan control relay

**ACCESSORIES - Field Installed**

- Vertical louvers
- Downturn air nozzle, 25-65° or 50-90° variable air deflector range (includes 4-point suspension kit) See page 37
- Thermostat and relay kits
- Air recirculation kits - See page 35
- Manual summer/winter switch
- Multiple heater control
- 4-point suspension kit
- Unit-mounted thermostat bracket
- Vent cap (A.G.A.)
- Step down transformer 230/115 or 460/115 - See page 35
- Burner air shutters
- Low ambient fan control relay kit
- Hanger kit to suspend from 1" pipe (2 or 4 point suspension)
- Single-stage and two-stage thermostats
- Thermostat guard with locking cover
- Manual shutoff valve and union
- Gas conversion kit

**NOTE: Not certified for residential use.**

**NOTE:** Regulated combination redundant gas valve consists of combination pilot solenoid valve, electric gas valve, pilot filter, pressure regulator, pilot shutoff, and manual shutoff, all in one body. Gas supply pressure must not exceed 0.5 psi (8 oz. or 14" w.c.). Minimum inlet pressure for natural gas is 5" w.c.; minimum inlet pressure for propane gas is 11" w.c.

## TECHNICAL DATA - Model FE

Size	25	50	75	100	125	165	200	250	300	400
BTUH Input	25,000	50,000	75,000	100,000	125,000	165,000	200,000	250,000	300,000	400,000
BTUH Thermal Output (80%)*	20,000	40,000	60,000	80,000	100,000	132,000	160,000	200,000	240,000	320,000
Vent Diameter (inches)	4	4	4	4	5	5	5	5	6	6
Gas Connection - Natural Gas**	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	3/4"	3/4"
Control Amps (24-volt)	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.65	0.65
Full-Load Amps (115 volt)	1.9	2.2	2.8	3.9	4.0	5.9	5.9	3.3	4.8	7.8
Normal Consumption (watts)	100	135	180	235	245	350	375	355	450	640
Throw at 8' Mounting Height***	35'	39'	48'	60'	73'	78'	85'	96'	108'	120'
Motor HP**** Standard	1/50	1/35	1/15	1/30	1/30	1/20	1/20	1/6	1/4	1/2
Optional Enclosed	--	1/15	1/15	1/8	1/8	1/8	1/6	1/6	1/2	1/2
Motor RPM	1550	1550	1550	1050	1050	1050	1050	850	850	850
Fan Diameter (inches)	10	10	12	14	16	16	20	22	22	24
CFM	380	650	980	1250	1600	2200	2800	3360	3800	4940
Outlet Velocity (FPM)	423	853	1166	1358	1332	1100	1217	1182	1426	1420
Approximate Net Wt (lbs)	76	83	92	101	132	154	175	209	226	281
Approximate Shipping Wt (lbs)	93	100	111	122	155	177	201	237	254	316

\*A.G.A. ratings for altitudes to 2000 ft. Above 2000 ft, de-rate by orifice change, 4% for each 1000 ft above sea level.

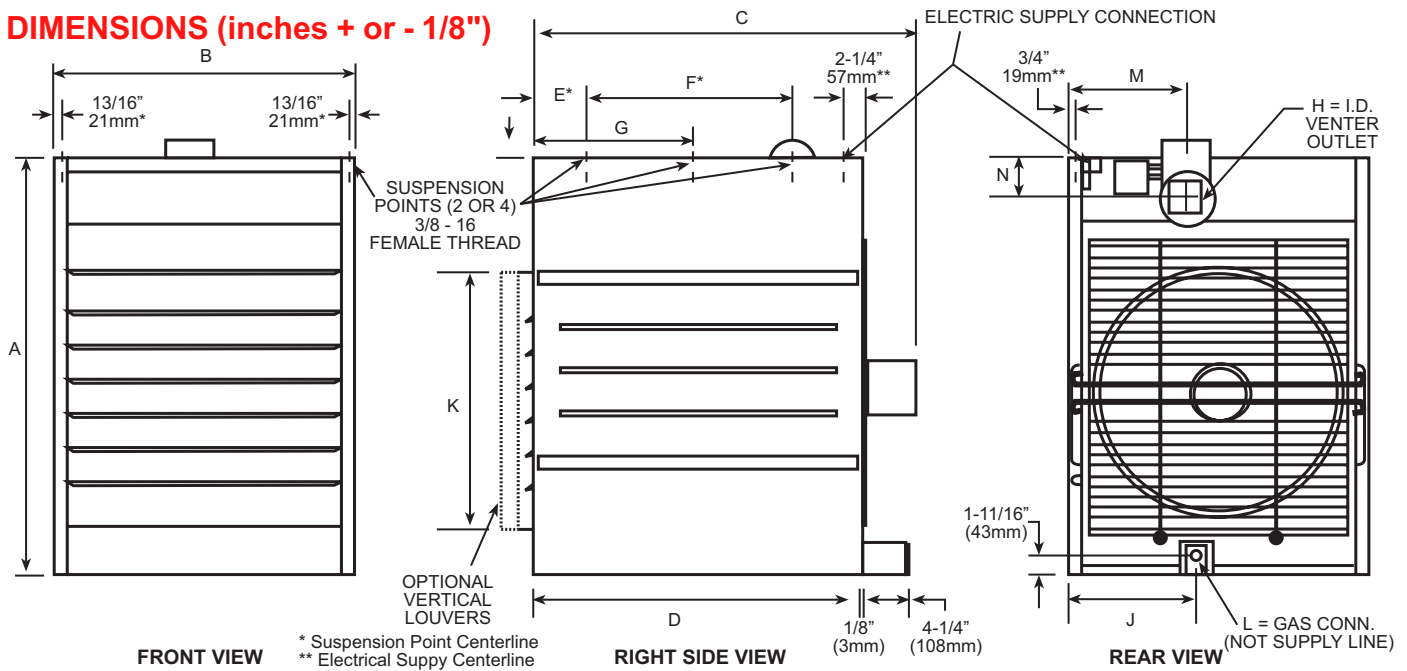
\*C.G.A. ratings for altitudes to 2000 ft. High altitude units (2001-4500 ft) are de-rated by 10% of maximum input.

\*\*Gas connection for propane is 1/2" for all sizes. Sizes shown are for gas connection to a single-stage gas valve; NOT gas supply line size.

\*\*\*See page 30 for additional mounting heights.

\*\*\*\*All other information in this table is based on a heater equipped with a standard 115v motor. (The standard motor for a Model 25 is an enclosed motor; all other standard motors are open motors. Optional enclosed motors are available in 115v only.)

### DIMENSIONS (inches + or - 1/8")



### Required Clearances

Size	A	B	C	D	E	F	G	H	J	K	L		M	N
											Nat	Pro		
25,50	29-3/4	13-1/2	27	31-1/2	5-7/8	14-1/2	14	4	10-1/4	16	1/2	1/2	9-3/4	3
75	29-3/4	15-1/2	27	31-1/2	5-7/8	14-1/2	14	4	10-1/2	16	1/2	1/2	10-1/2	3
100	29-3/4	17-1/2	30-1/2	31-1/2	5-7/8	14-1/2	14	4	12-7/8	16	1/2	1/2	10-1/2	3
125	29-3/4	23-1/4	30-1/2	31-1/2	5-7/8	14-1/2	14	5	14-1/2	16	1/2	1/2	11-1/2	2-5/8
165	40	20-1/4	35-1/2	36	4-7/8	19-1/2	15-3/4	5	14-1/4	24	1/2	1/2	11-3/4	4-5/8
200	40	23-1/4	36-1/4	36	4-7/8	19-1/2	15-3/4	5	14-3/8	24	1/2	1/2	11-3/4	4-5/8
250	40	28-3/4	36-1/4	36	4-7/8	19-1/2	15-3/4	5	12-3/8	24	1/2	1/2	11-3/4	4-5/8
300	40	28-3/4	36-1/4	36	4-7/8	19-1/2	15-3/4	6	12-3/8	24	3/4	1/2	11-3/4	3-5/8
400	40	37	37-1/4	36	4-7/8	19-1/2	15-3/4	6	13	24	3/4	1/2	11-3/4	3-5/8

<b>Top</b>	<b>6"</b>
<b>Flue Connector</b>	<b>6"</b>
<b>Sides</b>	<b>18"</b>
<b>Bottom</b>	<b>12"</b>
(when supplied with optional downturn nozzle, bottom clearance is 42"). For service purposes, in standard units, bottom clearance exceeding 12" minimum is not required, but may be desirable.	
<b>Rear</b>	<b>24"</b>
For service purposes the back of the unit <b>must</b> have 24" clearance.	

**SUSPENSION NOTES:** 1) Use dimension "G" for 2-point suspension and "E" and "F" for 4-point suspension. 2) Factory equipped with 2-point suspension; 4-point is optional.