

BEACON/MORRIS HIGH EFFICIENCY GAS FIRED BLOWER UNIT HEATER



BEBS-7

DESCRIPTION

The Beacon/Morris High Efficiency Unit Heater features integral power venting (factory installed) and sealed flue collector for optimum combustion. It minimizes wind effects on the system's efficiency. Electronic spark ignition reduces pilot gas losses, and the power drafter allows for horizontal venting through side walls. It all adds up to higher seasonal efficiencies and lower installation time. Certified by C.S.A. International. Approved for use in California.

80% THERMAL EFFICIENCY

The design achieves 80% thermal efficiency and annual fuel savings of up to 25% over conventional gravity vented heaters.

STANDARD FEATURES

- Spark Ignited Intermittent Safety Pilot With Electronic Flame Supervision
- Power Venter
- 20 ga. Aluminized Steel Heat Exchanger
- Certified for natural and propane gases.
- Aluminized Steel Burners with Stainless "Burner Shade Port Protector"
- 115 Volt Supply Voltage
- 115 Volt Motors, All Sizes with overload protection
- High Limit Switch
- Burner Air Shutters, All Sizes
- Fan Time Delay-Relay
- Motors and drives Factory mounted.
- Transformer, 115/24V
- Combustion Air Pressure Switch
- Redundant Single Stage Combination Gas Valve
- Bottom Access Panel, All sizes
- Belt Guard
- Horizontal Individually Adjustable Louvers
- 2 Point Hanger Rod Suspension, All Sizes
- 20 ga. Steel Cabinet with Gray Enamel Finish
- Duct Discharge flange on high static blower heater can be substituted for horizontal louver at no extra charge.
- Units are factory tested for operation of motor, control and flame.



OPTIONAL EXTRAS

OPT. NO.	DESCRIPTION
—	Stainless Steel Heat Exchangers (409 or 321 S.S.)
S3	409 Stainless Steel Flue Collectors
S1	409 Stainless Steel Burners
Q6	Vertical Louvers
P6	Summer - Winter Toggle Switch
G3	Low voltage room thermostat with Integral Switch for summer fan operation with the Sterling logo.
Q2, Q3, Q4	30°, 60° & 90° Downward Discharge Nozzle.
Q1	Y-Splitter Discharge Nozzle.



260 North Elm Street • Westfield, MA 01085
Tel: (413) 562-5423 Fax: (413) 572-3764
www.beacon-morris.com

PROJECT: _____

UNIT TAG: _____

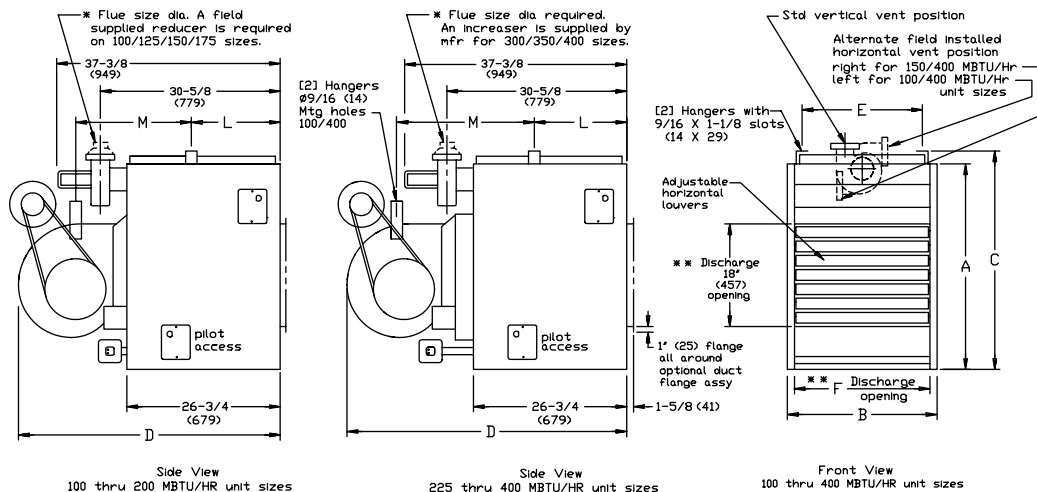


BMEB – PERFORMANCE AND DIMENSIONAL DATA

Model BMEB Unit Size	100	125	150	175	200	225	250	300	350	400
PERFORMANCE DATA ‡										
Input BTU/Hr	100,000	125,000	150,000	175,000	200,000	225,000	250,000	300,000	350,000	400,000
(kW)	(29.3)	(36.6)	(43.9)	(51.2)	(58.6)	(65.9)	(73.2)	(87.8)	(102.5)	(117.1)
Output BTU/Hr	80,000	100,000	120,000	140,000	160,000	180,000	200,000	240,000	280,000	320,000
(kW)	(23.4)	(29.3)	(35.1)	(41.0)	(46.9)	(52.7)	(58.6)	(70.3)	(82.0)	(93.7)
Thermal Efficiency (%)	80	80	80	80	80	80	80	80	80	80
Free Air Delivery CFM	1,200	1,575	1,975	2,300	2,400	2,600	2,850	3,950	4,600	4,800
(cu. m/s)	(0.566)	(0.743)	(0.932)	(1.086)	(1.133)	(1.227)	(1.345)	(1.864)	(2.171)	(2.266)
Air Temperature Rise Deg. F	62	59	56	56	62	64	65	56	56	62
(Deg. C)	(34)	(33)	(31)	(31)	(34)	(36)	(36)	(31)	(31)	(34)
Outlet Velocity FPM	880	950	1,030	1,045	965	935	930	1,080	1,090	1,000
(m/s)	(4.47)	(4.83)	(5.23)	(5.31)	(4.90)	(4.75)	(4.72)	(5.49)	(5.54)	(5.08)
Full Load Amps at 115V	8.3	9.8	10.6	10.6	15.2	15.2	15.2	15.2	18.6	18.6
MOTOR DATA : Motor HP										
Motor (kW)	1/4	1/3	1/2	1/2	3/4	3/4	3/4	3/4	1	1
Motor (kW)	(0.19)	(0.25)	(0.37)	(0.37)	(0.56)	(0.56)	(0.56)	(0.56)	(0.75)	(0.75)
Motor Type	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	cap.start	cap.start
R.P.M.	1,725	1,725	1,725	1,725	1,725	1,725	1,725	1,725	1,725	1,725
Amps @ 115V	5.1	6.6	7.4	7.4	12.0	12.0	12.0	12.0	15.4	15.4
DIMENSIONAL DATA in. (mm)										
"A" Height to Top of Unit	31-1/4 (794)	31-1/4 (794)	36-1/4 (921)	36-1/4 (921)	36-1/4 (921)	36-1/4 (921)	36-1/4 (921)	36-1/4 (921)	36-1/4 (921)	36-1/4 (921)
"B" Width of Unit	17-7/8 (454)	20-5/8 (524)	20-5/8 (524)	23-3/8 (594)	26-1/8 (664)	28-7/8 (733)	31-5/8 (803)	37-1/8 (943)	42-5/8 (1083)	48-1/8 (1222)
"C" Height to Top of Hanger	34-1/8 (867)	34-1/8 (867)	39-1/8 (994)	39-1/8 (994)	39-1/8 (994)	39-1/8 (994)	39-1/8 (994)	39-1/8 (994)	39-1/8 (994)	39-1/8 (994)
"D" Depth to Rear of Housing	42-5/8 (1083)	44-1/4 (1124)	44-1/4 (1124)	47 (1194)	47 (1194)	51 (1295)	51 (1295)	48-1/4 (1226)	51 (1295)	51 (1295)
"E" Hanging Distance Width	14-1/2 (368)	17-1/4 (438)	17-1/4 (438)	20 (508)	22-3/4 (578)	25-1/2 (648)	28-1/4 (718)	33-3/4 (857)	39-1/4 (997)	44-3/4 (1137)
"F" Discharge Opening Width	15-3/8 (391)	18-1/8 (460)	18-1/8 (460)	20-7/8 (530)	23-5/8 (600)	26-3/8 (670)	29-1/8 (740)	34-5/8 (879)	40-1/8 (1019)	45-5/8 (1159)
"J" to Centerline of Flue	5-7/8 (149)	7-1/4 (184)	7-1/4 (184)	8-5/8 (219)	10 (254)	11-1/4 (286)	12-3/4 (324)	15-1/2 (394)	18-1/4 (464)	21 (533)
"L" Hanger Location	16-3/8 (416)	16-3/8 (416)	16-3/8 (416)	16-3/8 (416)	16-3/8 (416)	16-3/8 (416)	16-3/8 (416)	16-3/8 (416)	16-3/8 (416)	16-3/8 (416)
"M" Hanging Distance Depth	16-3/8 (416)	16-3/8 (416)	16-3/8 (416)	17-7/8 (454)	17-7/8 (454)	21-7/8 (556)	21-7/8 (556)	21-7/8 (556)	21-7/8 (556)	21-7/8 (556)
Flue Size Dia-in. *	4	4	4	4	5	5	5	6	6	6
(Dia-mm)	(102)	(102)	(102)	(102)	(127)	(127)	(127)	(152)	(152)	(152)
Blower Size-in.	9	10	10	12	12	12	12	(2) 10	(2) 12	(2) 12
Gas Inlet-Natural Gas-in.	1/2	1/2	1/2	1/2	1/2	3/4	3/4	3/4	3/4	3/4
Gas Inlet-LP Gas-in.	1/2	1/2	1/2	1/2	1/2	1/2 OR 3/4				
Approx. Shipping Wt. lb.	262	279	314	336	363	408	427	471	561	594
(kg)	(119)	(127)	(142)	(152)	(165)	(185)	(194)	(214)	(254)	(269)

‡ Ratings shown are for unit installations at elevations between 0 and 2000 ft. (610m). For unit installations in USA above 2000 ft. (610m), the unit input must be derated 4% for each 1000 ft. (305m) above sea level; refer to local codes, or in absence of local codes, refer to the National Fuel Gas Code, ANSI Standard Z223.1-1999 (N.F.P.A. No. 54), or the latest edition of. For installations in Canada, any references to deration at altitudes in excess of 2000 ft. (610m) are to be ignored. At altitudes of 2000 to 4500 ft. (610 to 1372m), the unit must be derated to 90% of the normal altitude rating, and be so marked in accordance with the CSA certification.

LEGEND: SPH = SPLIT PHASE
CAP. START = CAPACITOR START



D3632B

Discharge opening assembly

DIMENSIONS .XXX STANDARD UNITS
DIMENSIONS IN PARENTHESIS (XXX) MILLIMETERS

* Canadian units include a vent cap, and reducer/increaser if req.