BENSON

External Variante

External Unit Heaters

AMBIRAD
HEATING AND VENTILATION SOLUTIONS

External Variante

External Unit Heaters

The compact highly efficient Variante heaters provide cost effective heating for most commercial and industrial buildings, such as showrooms, factories, workshops, warehouses, greenhouses etc.

EVRC/D Units are weatherproof and suitable for rooftop or other outside locations.

Model Range

The external Variante gas fired units are available with heat outputs ranging from 12kW-144kW for use on natural gas (G20), units may also be specified for use on propane (G31).

EVRC Heaters are supplied with a centrifugal fan and outlet duct connection spigot. Optional fan drives can be specified for updated pressures of 250 and 500 pascals.

EVRD units are a heat exchanger module without fan for installation where air movement fans are provided by others.

Options

- High/Low gas burner
- Modulating gas burner
- Mixing box complete with dampers
- Stainless steel heat exchanger
- Air re-circulation thermostat
- Fresh air intake louvre

Specification

Cabinet

Formed from electro-zinc plated steel the heater cabinet is IP44 rated epoxy powder coated with a durable Kestrel Grey paint finish.

Access to the burner and controls compartment is via a full width side hinged door.

The units are complete with a sloped roof section with rain channels and are lined with a high specification closed cell insulation. Units are supplied mounted on a base frame.

Heat Exchanger

Formed from aluminised steel tube into a compact, highly efficient four pass 'S' shaped assembly the Variante heat exchanger is capable of delivering efficiencies in excess of 91% nett.

Stainless steel heat exchanger tubes are available as an option.

Burner

Variante heaters are fitted with a quiet multi-flame, in-shot burner complete with automatic electronic spark ignition and ionisation flame proving. On/off control is standard, optional high/low or modulation can be specified for greater energy efficiency and close environmental control.

Fuel

Heaters can be specified to operate on either natural gas (G20) or LPG (Propane G31).

Technical Data

		Model Ref									
		12	20	30	42	50	60	72	95	120	145
Nominal heat output	kW	12	20	29	39	49	59	72	96	120	144
Temperature rise	K	32	30	31	36	34	32	32	35	32	32
Airflow											
EVRC	m^3/s	0.31	0.55	0.79	0.96	1.21	1.54	1.90	2.26	3.08	3.78
EVRD (minimum)	m^3/s	0.25	0.42	0.60	0.81	102	1.23	1.50	2.00	2.50	3.00
EVRD (maximum)	m^3/s	0.50	0.83	1.21	1.63	2.04	2.46	3.00	4.00	5.00	6.00
External static Pressure											
EVRC	Pa	100	125	100	150	150	180	150	180	200	200
EVRC-250	Pa	250	250	250	250	250	250	250	250	250	250
EVRC-500	Pa	500	500	500	500	500	500	500	500	500	500
Gas Consumption[1]											
Natural gas G20	m^3/h	1.37	2.23	3.38	4.50	5.63	6.76	8.33	11.12	13.87	16.63
Propane G31	m^3/h	0.52	0.86	1.30	1.73	2.16	2.59	3.21	4.28	5.34	6.41
Gas connection[2]	Rc	½"	½"	½"	½"	½"	½"	¾"	¾"	¾"	¾"
Minimum Gas Inlet Pressure											
Natural gas G20	mbar	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
Propane G31	mbar	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0
Electric Supply											
EVRC & EVRC-250	V/ph/hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	415/3/50	415/3/50
EVRC-500	V/ph/hz	230/1/50	230/1/50	230/1/50	230/1/50	415/3/50	415/3/50	415/3/50	415/3/50	415/3/50	415/3/50
EVRD	V/ph/hz	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50	230/1/50
Flue diameter	mmØ	80	80	100	100	100	100	130	130	130	130
Combustion air diameter	mmØ	80	80	100	100	100	100	130	130	130	130
Noise level[3]	dB(A)	48	50	52	53	55	39	55	58	60	60
Net Weight											
EVRC	kg	140	146	163	181	202	227	294	324	370	414
EVRD	kg	76	80	96	107	121	135	184	204	243	276

1. Fuel consumption and output figures based upon gross calorific values as - Natural gas (G20) @ 37.78 MJ/m3 Lpg propane (G31) @ 95.65 MJ/m3
2. Gas lines must be adequately sized and reduced at appliance as required
3. Noise levels measured 3m from appliance for standard EVRC model. For EVRC 250/500 models please consult Benson.

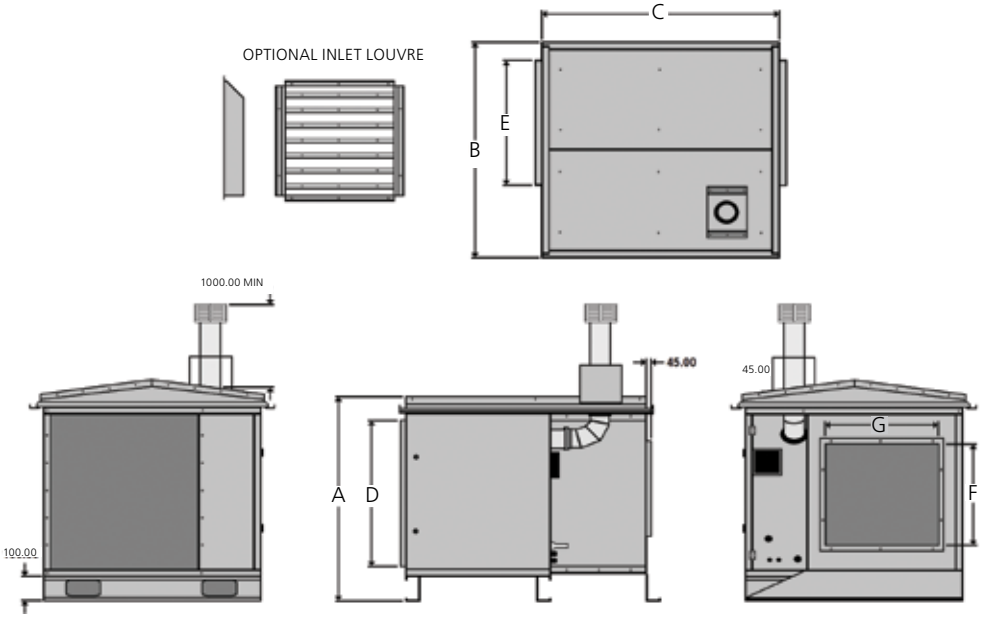
Electric Motors

All electric motors comply with EC motor directive 2005/32/EC

Efficiency

Each heater within the range has been designed and developed with fuel efficiency in mind and efficiencies exceed the mandatory requirements of CE legislation.

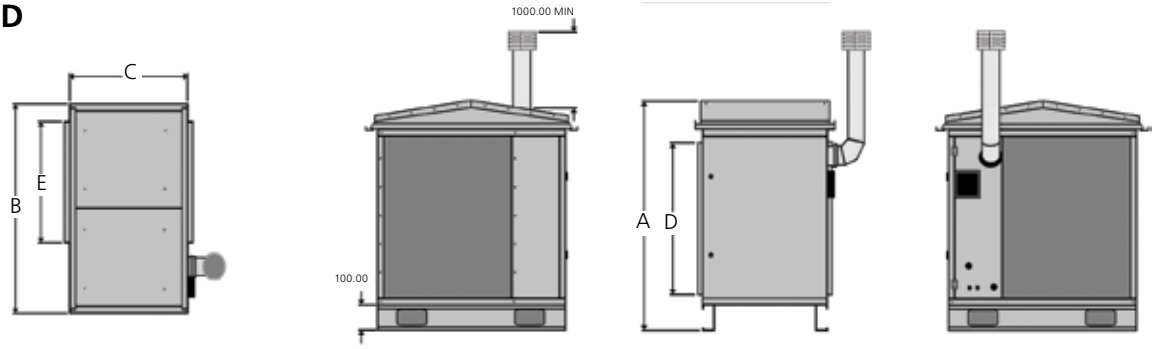
EVRC



Dimensions

			Model Ref								
			12	20	30	42	50	60	72	95	120	145
A	Unit height	mm	595	595	700	805	935	1065	805	955	1135	1305
B	Unit width	mm	1150	1150	1150	1150	1150	1150	1850	1850	1850	1850
C	Unit length	mm	1575	1575	1575	1575	1750	1750	1805	1875	1875	1875
D		mm	390	390	495	600	730	860	600	750	930	1100
E		mm	729	729	729	729	729	729	1339	1339	1339	1339
F		mm	276	276	381	486	558	558	668	668	748	828
G		mm	708	708	708	708	708	708	1318	1318	1318	1318

EVRD



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B	Unit width	mm	1150	1150	1150	1150	1150	1150	1850	1850	1850	1850
C	Unit depth	mm	780	780	780	780	780	780	910	910	910	910
D		mm	390	390	495	600	730	860	600	750	930	1100
E		mm	729	729	729	729	729	729	1339	1339	1339	1339

Document reference number: GB/BEN/010/0913

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