

Essential Plus[®]

Essential Plus electric boiler offers a sustainable heating solution for a primary and secondary heat source for space heating needs up to 41 MBH. Its simple, compact design is easy and economical to install. Ideal for locations where the feasibility of fossil fuel (NG/LP) or venting is unavailable. It requires little or no maintenance and is 100% energy-efficient with no carbon emissions produced.

MAXIMUM PERFORMANCE

- Can be used in high temp. applications up to 190°F
- Zero CO₂ emissions
- Dual Titanium heating elements for longer life
- Extremely quiet operation
- 4 Sizes: space heating up to 41 MBH
4kW, 8kW, 10kW, and 12kW
- Primary or supplemental heat to existing hydronic systems
- A backup for heat pump / solar heating applications up to 41 MBH

BUILT-IN FEATURES

- Outdoor reset capable with outdoor sensor (sold separately)
- Full modulation control of heating elements (0-100%)
- Built-in 3-speed boiler pump
- Built-in flow sensor and high-limit safeties

EASY TO INSTALL AND SERVICE

- Easy set-up for either set-point or outdoor reset operation
- User friendly interface with plain English
- Top cover comes off for easy element replacement
- No venting required - no combustion means no greenhouse gas emissions
- Only 2 moving parts (pump and flow meter)
- Propylene Glycol compatible
- Flexible installation

WARRANTY

- 1-Year element/pump warranty,
5-Year parts warranty

*See Residential Warranty Certificate for complete information

Units meet or exceed ANSI requirements and have been tested according to D.O.E. procedures. Units meet or exceed the energy efficiency requirements of NAECA, ASHRAE standard 90, ICC Code and all state energy efficiency performance criteria.



*Essential Plus
Electric Boiler*
4kW, 8kW, 10kW and 12kW
Electric

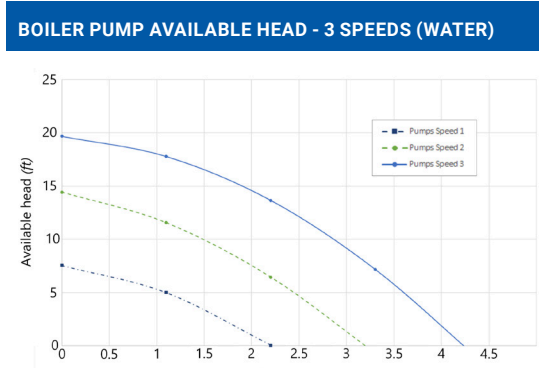
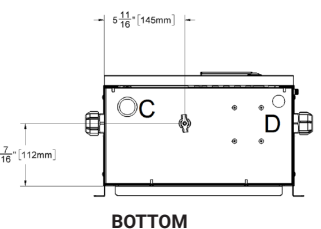
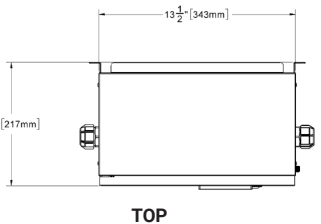
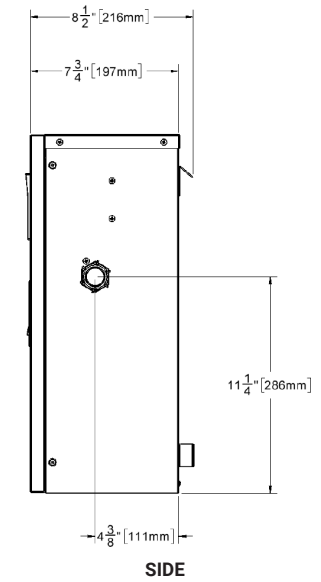
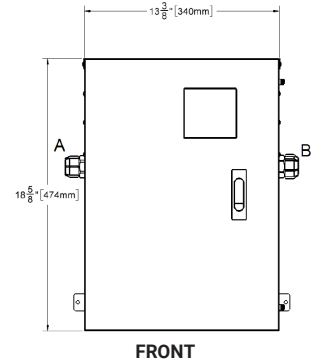


Essential Plus®

Essential Plus Electric Boiler Specifications

SPECIFICATIONS	RMHEBH-4k240i	RMHEBH-8k240i	RMHEBH-10k240i	RMHEBH-12k240i
Power @ 240V	1.3-13.7 MBH (0.4-4.4 kW)	2.7-27.3 MBH (0.8-8 kW)	3.4-34.1 MBH (1.0-10 kW)	4.1-41.0 MBH (1.2-12 kW)
Power @ 208V	1.0-10.2 MBH (0.3-3 kW)	2.1-20.5 MBH (0.6-6 kW)	2.6-25.6 MBH (0.8-7.5 kW)	3.1-30.7 MBH (0.9-9.0 kW)
Max. Current Draw (w/ pump) @ 240V	17.6 A	34.2 A	42.6 A	50.9 A
Max. Current Draw (w/ pump) @ 208V	15.4 A	30.0 A	37.1 A	44.3 A
Breaker Size	30 A	45 A	60 A	70 A
Copper Wire Size	10 AWG	8 AWG	8 AWG	6 AWG
Min. Ambient Temperature	32°F	32°F	32°F	32°F
Max. Ambient Temperature	122°F	122°F	122°F	122°F
Max. Relative Humidity (Non-Condensing)	90%	90%	90%	90%
Min. Water Temperature	34°F	34°F	34°F	34°F
Max. Water Temperature (Electronic Hi-Limit)	190°F	190°F	190°F	190°F
Max. Water Temperature Lockout Limit	210°F	210°F	210°F	210°F
Weight (Empty)	29 lb	29 lb	29 lb	29 lb
Min. Boiler Flow Rate	0.7 GPM	1.4 GPM	1.7 GPM	2.1 GPM
Max. Boiler Flow Rate	4.2 GPM	4.2 GPM	4.2 GPM	4.2 GPM
Max. Operating Water Pressure*	50 psig	50 psig	50 psig	50 psig
Min. Water Pressure	8 psig	8 psig	8 psig	8 psig
Element Construction	Titanium	Titanium	Titanium	Titanium

*Boiler ships with a 30 psi Pressure Relief Valve



PIPING CONNECTIONS

	Description	Boiler
A	Supply Water Outlet	3/4" NPT-M
B	Return Water Inlet	3/4" NPT-M
C	Supply Power Knock-Out	Dual 3/4" and 1"
D	Control Wiring Knock-Out	1/2"

CLEARANCE FROM BOILER CABINET

Surface	Min. Distance From Combustible	Recommended Distance For Installation
Front	2"	24"
Left Side	2"	4" (allow access to water connections)
Right Side	2"	4" (allow access to water connections)
Top	2"	8" (to allow access to elements)
Bottom	2"	6" (for drain and power supply access)

In keeping with its policy of continuous progress and product improvement, Richmond reserves the right to make changes without notice.