

Commercial Immersion and Surface Mounted Energy Saver Electric Water Heater



Photo is of M-II-50-kW-3SF

The Immersion and Surface Mounted Electric Models Feature:

- Surface Mounted Thermostat Step Control (modulation)—Can be accomplished by variable setting on thermostats (each element has an individual thermostat and high limit).
- Immersion Thermostats—Immersion type for accurate temperature control from up to 180°F (82°C) with manual reset high limit control.
- 3" (76mm) Non-CFC foam insulation—Covers the sides and top of tank, reducing the amount of heat loss. This results in less energy consumption, improved operation efficiencies and jacket rigidity.
- Factory Installed Hydrojet® Sediment Reduction System—Cold water inlet sediment reducing device helps prevent sediment build up in tank and increases first hour delivery of hot water while minimizing temperature build up in tank.
- Vitraglas® Lining—Bradford White tanks are lined with an exclusively engineered enamel formula that provides superior protection from the highly corrosive effects of hot water. This formula (Vitraglas®) is fused to the steel surface by firing at a temperature of over 1600F.
- Water Connections—1½" NPT factory installed true dielectric fittings extend water heater life and eases installation.
- Elements—Screw in style. Surface mounted thermostat models have elements made of nickel chromium wire embedded in magnesium oxide, sheathed in copper and electroplated to minimize degradation of the anode. Incoloy sheathed elements are optional. Immersion thermostat models have low watt density incoloy sheathed elements standard which resists burnout caused by dry fire or lime buildup.
- Two Magnesium Anode Rods—Provide added protection against corrosion for long trouble free service.
- Hand Hole Cleanout—Allows inspection of tank interior and facilitates the removal of sediment deposits.
- ASME Construction Available.
- NSF Construction Available.
- Brass Drain Valve—Tamper Proof Design.
- T&P Relief Valve—Installed.
- Completely Pre-wired—With pressure lug terminal block eliminating need for splicing or taping of wires.
- Voltages Available—208v, 240v, 277v, 380v, 415v, 480v and 600v.











3-Year Limited Tank Warranties / 1-Year Limited Warranty on Component Parts.

For more information on warranty, please visit www.bradfordwhite.com For products installed in USA, Canada and Puerto Rico. Some states do not allow limitations on warranties. See complete copy of the warranty included with the heater.

Commercial Electric Water Heater

Energy Saver Models

Meet or exceed ASHRAE 90.1b (current standard) C.E.C. Listed

Model Number	Capacity U.S. Imp.	A Height	B Jacket Dia.	C Height to T&P Conn.	D Floor to Hot Water Outlet	E Floor to Cold Water Outlet	F Floor to Top of Control Box	Shij We	orox. oping eight os.
	U.S. Imp. Gal. Gal.	in.	in.	in.	in.	in.	in.	Std.	ASME
M-II-50(A)-kW-3SF	50 42	473/4	24	41	491/4	63/4	461/2	270	302
M-II-80(A)-kW-3SF	80 67	601/4	26	52 ¹ / ₂	613/4	63/4	461/2	335	378
M-II-120(A)-kW-3SF	119 100	641/2	301/4	55	66	63/4	501/4	430	485

Model Number	Capacity	A Height	B Jacket Dia.	C Height to T&P Conn.	D Floor to Hot Water Outlet	E Floor to ColdWater Outlet	F Floor to Top of Control Box	Shi We	prox. pping eight cg.
	Liters	mm.	mm.	mm.	mm.	mm.	mm.	Std.	ASME
M-II-50(A)-kW-3SF	109	1213	610	1041	1251	178	1181	122	137
M-II-80(A)-kW-3SF	303	1530	660	1334	1568	178	1181	152	171
M-II-120(A)-kW-3SF	450	1638	768	1397	1676	178	1276	195	220

Model numbers shown are for Surface Mount thermostats.

For Immersion thermostat change suffix "SF" to "CF". Voltage and phase must be specified when ordering. Example: M-II-50-12-3SF, 240 Volt, 3 phase.

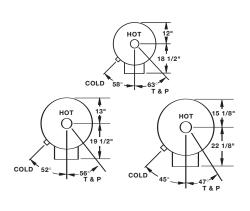
(A) ASME Construction

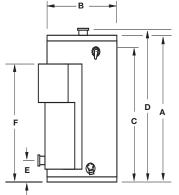
available. For ASME construction add "A" to the model number. Example: M-II-50**A**-12-3SF.

Number	Number of Elements (Fused Models)*											
Input kW	208V Phase		240V Phase		277V Phase	380V Phase	415V Phase	480V Phase		600V Phase		
	1	3	1	3	1	3	3	1	3	3		
6	3(2)	3	3(2)	3	3	3	3	3(2)	3	3		
9	3	3	3	3	3	3	3	3	3	3		
12	3	3	3(2)	3	3	3	3	3(2)	3	3		
13.5	3	3	3	3	3	3	3	3	3	3		
15	3	3	3	3	3	3	3	3	3	3		
18	3	3	3	3	3	3	3	3	3	3		
24	4	6	4	6	4	6	6	4	6	6		
27	6	6	6	6	6	6	6	6	6	6		
30	6	6	6	6	6	6	6	6	6	6		
36	6	6	6	6	6	6	6	6	6	6		
45	9	9	9	9	9	9	9	9	9	9		
54	9	9	9	9	9	9	9	9	9	9		

Full Load Current Amperes (Fused Models)*											
Innut	208V Phase		240V Phase		277V Phase	380V Phase	415V Phase	480V Phase		600V Phase	
Input kW	1	3	1	3	1	3	3	1	3	3	
6	28.8	16.6	25.0	14.4	21.6	10.0	9.0	12.5	7.2	5.8	
9	43.2	25.0	37.2	21.6	32.4	14.0	13.0	18.7	10.8	8.7	
12	57.6	33.3	50.0	28.9	43.3	19.0	17.0	25.0	14.4	11.5	
13.5	64.9	37.5	56.2	32.5	48.7	21.0	19.0	28.1	16.2	13.0	
15	72.1	41.6	62.5	36.1	54.1	23.0	21.0	31.2	18.0	14.4	
18	86.5	50.0	72.0	43.4	64.0	28.0	25.0	37.5	21.6	17.3	
24	115.4	66.7	100.0	57.8	86.6	37.0	34.0	50.0	28.9	23.1	
27	129.8	75.0	112.5	65.0	97.4	41.0	38.0	56.2	32.5	26.0	
30	144.2	83.3	125.0	72.2	108.3	46.0	42.0	62.5	36.1	28.9	
36	173.0	100.0	150.0	86.7	129.9	55.0	50.0	75.0	43.3	34.6	
45	216.3	125.0	187.5	108.3	162.4	69.0	63.0	93.7	54.1	43.3	
54	259.6	150.0	225.0	130.0	194.9	83.0	75.0	112.5	65.0	52.0	

Units with amperage draw of 48 amps or more require factory installed internal fusing. *If the number of elements on non-fused models is different, it is located in parentheses (), following the amp draw.





	Recovery GPH Temperature Rise °F									
kW Input	40	50	60	70	80	90	100	120	140	
6	62	50	41	35	31	28	25	21	18	
9	93	74	62	53	47	42	37	31	27	
12	124	99	83	71	62	55	50	41	35	
13.5	140	112	93	80	70	62	56	47	40	
15	155	124	103	89	78	69	62	52	44	
18	186	149	124	106	93	83	74	62	53	
24	248	199	164	142	124	110	99	83	71	
27	279	223	186	160	140	124	112	93	80	
30	310	248	207	177	155	138	124	103	89	
36	372	298	248	213	186	165	149	124	106	
45	465	372	310	266	233	207	186	155	133	
54	558	447	372	319	279	248	223	186	160	

Optional surface thermostats ranging from 80°F to 140°F are available.

Sample Specification

The water heater shall be a Bradford White model with a rated storage capacity of not less than ____gallons (_____liters), a minimum kW input of ____kW (_____BTU/Hr.), a minimum recovery of ____CPH (____LPH), and a minimum First Hour Delivery of ____Gal. (_____liters). The tank shall be Vitraglas® lined and have a bolted hand hole cleanout. The tank shall have _____magnesium anode rods installed in separate tank head couplings. The heater shall have 3" Non-CFC foam insulation, and come equipped with an ASME rated T&P relief valve, a cold water inlet Hydrojet® Sediment Reduction System. It shall be design certified by uL for 180°F (82°C) application, either with or without a separate storage tank, and comply with state and local codes and ordinances.

General

All electric water heaters are certified at 300 PSI test pressure (2068 kPa) and 150 PSI working pressure (1034 kPa). All models are design certified by uL, for up to 180°F (82°C) application as an Automatic Storage Heater, and an Automatic Circulating Tank Heater. As an Automatic Storage Heater, all models are complete, self-contained water heating systems. It needs no separate storage tank, pump, wiring or elaborate piping network. When equipped with a mixing valve, it will supply 180°F (82°C) sanitizing and 140°F (60°C) general purpose hot water simultaneously. These models can be used either as a single unit or in multiples connected in series or parallel (recommended). Dimensions and specifications subject to change without notice in accordance with our policy of continuous product improvement.



Ambler, PA

For U.S. and Canada field service, contact your professional installer or local Bradford White sales representative.

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401/402B-0710-A Printed in U.S.A