



## COMMERCIAL WATER HEATERS

# IMMERSION ELECTRIC TANK-TYPE WATER HEATERS 6 KW THRU 54 KW

**RHEEM-RUUD** Electric Commercial Water Heaters are suitable for general commercial hot water applications and are also ideal for point-of-use installations, eliminating costly temperature loss in long piping runs. A single unit can be used as a booster heater to satisfy the hot water requirements of commercial dishwashers. A single temperature storage unit, when installed with a mixing valve, will supply two temperatures in food service establishments. For larger volume hot water requirements, 2, 3 or 4 units can be parallel manifolded, using optional factory kits.

### Construction Features:

**SYSTEM SENTINEL** - An element diagnostic panel, utilizing light emitting diodes (L.E.D.) corresponding to the number and location of each heating element are energized when the electric elements are operating. An unlit L.E.D. pinpoints the exact location of a non-functioning element, making element operation diagnosis simple and positive..

**R-FOAM® INSULATION** - A rigid polyurethane foam insulation provides superior insulating qualities, improves efficiency. Exceeds R-16 insulation factor. Our patented process of injecting R-Foam directly into the insulating cavity adds additional durability and toughness to the heater jacket. Fiberglass insulation guards against heat loss in the heating element compartment, and provides easy service access.

**LIFEGUARD HEATING ELEMENTS** - Separate screw-in type elements feature a stainless steel outer sheath of INCO-LOY® 800, surrounding a Nichrome wire filament, to resist water chemical corrosion and burn-out even in air or sediment...for long element life and long life performance. Elements are directly immersed in the water for efficient transfer of heat, and are easily changed by simply screwing new ones into the tank.

**GLASS LINED STORAGE TANK** - Heavy duty steel tank protects with double coating of exclusive Rheemglas to resist the corrosive action of hot water. Designed for 150 PSI working pressure. Each tank is supplied with factory installed anode rods for cathodic protection.

### Certifications and Ratings:

**EFFICIENCY** - These units have been tested according to procedures specified by CSA and meet or exceed the energy efficiency requirements of ASHRAE Standard 90.1b 1992 requirements for energy conservation.



**50, 85 AND  
120 GALLON  
CAPACITIES**

**208, 240  
AND 600  
VOLTAGES**

**EG  
IMMERSION  
THERMOSTAT  
MODELS**



**WATER CONNECTIONS** - Hot outlet and cold inlet are 1-1/2" NPS brass nipples which prevent excessive turbulence of heating water and result in optimum tank draw.

**SINGLE PANEL CONTROL BOX** - With hinged door, provides immediate access to all electrical components and elements.

**TERMINAL BLOCK** - All models are equipped with CSA listed terminal blocks for simplicity of installation. This new terminal block will accept either copper or aluminum field connect wire.

<b>MODEL NUMBERS</b>			
<b>INPUT KW</b>	<b>IMMERSION THERMOSTATS</b>		
	<b>Tank Capacity In Gallons</b>		
	<b>50 Gal. (190L)</b>	<b>85 Gal. (321L)</b>	<b>120 Gal. (454L)</b>
6			
9	EG50-C-9	EG85-C-9	EG120-C-9
12	EG50-C-12	EG85-C-12	EG120-C-12
15	EG50-C-15	EG85-C-15	EG120-C-15
18	EG50-C-18	EG85-C-18	EG120-C-18
24	EG50-C-24	EG85-C-24	EG120-C-24
30	EG50-C-30	EG85-C-30	EG120-C-30
36	EG50-C-36	EG85-C-36	EG120-C-36
45	EG50-C-45	EG85-C-45	EG120-C-45
54	EG50-C-54	EG85-C-54	EG120-C-54

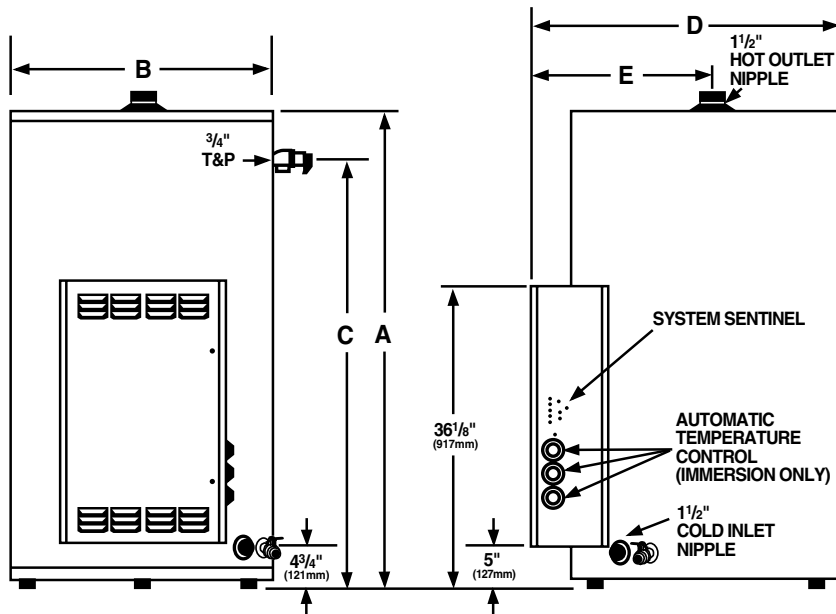
<b>ELECTRICAL CHARACTERISTICS</b>														
<b>INPUT KW</b>	<b>NO. OF ELEMENTS</b>	<b>ELEMENT WATTAGE</b>	<b>FULL LOAD CURRENT IN AMPERES</b>					<b>Number of Fuses 30A Class G</b>		<b>Number of Contactors</b>		<b>IMMERSION THERMOSTATS</b>		
			<b>208V</b>		<b>240V</b>		<b>600V</b>					<b>Number of Thermostats</b>	<b>Optional Models – Staged Models with Suffix “F”</b>	
			<b>Phase</b>	<b>Phase</b>	<b>Phase</b>	<b>Phase</b>	<b>Phase</b>	<b>Number of Thermostats</b>	<b>KW Step Size</b>					
			<b>1</b>	<b>3</b>	<b>1</b>	<b>3</b>	<b>3</b>			<b>208/240V</b>	<b>600V</b>		<b>208/240V</b>	<b>600V</b>
6												1	N/A ONE THERMOSTAT STANDARD	6
9	3	3000	43	25	38	22	9	6	3	2	1	1		9
12	3	4000	58	33	50	29	12	6	3	2	1	1		12
15	3	5000	72	42	63	36	15	6	3	2	1	1		15
18	3	6000	87	50	75	43	18	6	3	2	1	1		18
24	6	4000	116	67	100	58	23	12	6	4	2	1	2	12
30	6	5000	144	84	125	73	29	12	6	4	2	1	2	15
36	6	6000	173	100	150	87	35	12	6	4	2	1	2	18
45	9	5000	217	125	188	109	43	18	9	6	3	1	3	15
54	9	6000	260	150	225	130	52	18	9	6	3	1	3	18

<b>RECOVERY CAPACITIES</b>														
<b>Recovery in U.S. Gallons/Hr. (GPH) and Liters/Hr. (LPH) at Various Temperature Rises</b>														
<b>INPUT KW</b>	<b>EQUIVALENT BTU/HR.</b>	<b>UNITS</b>	<b>40°F (22°C)</b>	<b>50°F (28°C)</b>	<b>60°F (33°C)</b>	<b>70°F (39°C)</b>	<b>80°F (45°C)</b>	<b>90°F (50°C)</b>	<b>100°F (56°C)</b>	<b>110°F (61°C)</b>	<b>120°F (67°C)</b>	<b>130°F (72°C)</b>	<b>140°F (78°C)</b>	
6		GPH												
		LPH												
9	30,709	GPH	93	74	62	53	47	41	37	34	31	29	27	
		LPH	352	282	235	201	176	157	141	128	117	108	101	
12	40,946	GPH	124	99	83	71	62	55	50	45	41	38	35	
		LPH	470	376	313	268	235	209	188	171	157	145	134	
15	51,183	GPH	155	124	103	89	78	69	62	56	52	48	44	
		LPH	587	470	391	335	294	261	235	213	196	181	168	
18	61,420	GPH	186	149	124	106	93	83	74	68	62	57	53	
		LPH	705	564	470	403	352	313	282	256	235	217	201	
24	81,893	GPH	248	199	165	142	124	110	99	90	83	76	71	
		LPH	939	751	626	537	470	417	376	342	313	289	268	
30	102,366	GPH	310	248	207	177	155	138	124	113	103	95	89	
		LPH	1174	939	783	671	587	522	470	427	391	361	335	
36	122,839	GPH	372	298	248	213	186	165	149	135	124	115	106	
		LPH	1409	1127	939	805	705	626	564	512	470	434	403	
45	153,549	GPH	465	372	310	266	233	207	186	169	155	143	133	
		LPH	1761	1409	1174	1006	881	783	705	640	587	542	503	
54	184,259	GPH	558	447	372	319	279	248	223	203	186	172	160	
		LPH	2114	1691	1409	1208	1057	939	845	769	705	650	604	

## DIMENSIONAL INFORMATION

All dimensions shown in English and Metric

MODEL NUMBER	UNITS	A	B	C	D	E	APPROX. SHIPPING WEIGHT (LBS.)
EG50	inches	43-5/8	26-1/4	36-1/4	32	17-1/4	270 lbs.
	mm	1108	667	920	813	438	122 kgs.
EG85	inches	57-11/16	28-1/4	49-1/2	34	18-1/4	350 lbs.
	mm	1465	718	1258	864	464	159 kgs.
EG120	inches	67-5/8	30-1/4	58-3/4	36	19-1/4	430 lbs.
	mm	1718	768	1493	914	489	185 kgs.



**SYSTEM SENTINEL™** - All models employ a diagnostic panel utilizing light emitting diodes (L.E.D.), corresponding to the number and location of each heating element. L.E.D.'s are energized when the electric elements are operating. An unlit L.E.D. pinpoints the exact location of a non-functioning element, making element operation diagnosis simple and positive.

The minimum distance to provide adequate clearance for protection of combustible material is 0 inches from jacket and 18 inches from access door. However, additional clearance for accessibility to permit inspection and servicing such as removing heating elements or checking controls must be provided. All models are approved for installation on combustible flooring.

### Additional Construction Features:

**ELECTRICAL CONNECTIONS** - Prewired, accessible control box with multiple knock-outs on top and side in size selections to match the Canadian Electrical Code. Sizes range from 1/2" to 2". A grounding screw is provided for attaching an equipment grounding conductor.

**STANDARD EQUIPMENT ASME T&P VALVE** - This is a double safety valve that relieves when temperature or pressure becomes excessive.

**AUTOMATIC TEMPERATURE CONTROL** - Water temperature settings from OFF and ranging from 90°F up to 180°F (32°C to 82°C) are maintained by immersion thermostat that insures instant shut off at the selected temperature for safety and economy of operation. One thermostat is supplied as standard. For element steps, up to two additional thermostats can be supplied - see optional controls. Over temperature protection is provided by an immersed high temperature limit control, factory set at 200°F (93°C).

**MAGNETIC CONTACTORS** - All models equipped with contactors, factory wired for simplicity of installation and economical maintenance throughout life of the unit.

**240 VOLT CONTROL CIRCUIT** - all units are furnished with a 240 volt control circuit. All controls (thermostats, high temperature limit, etc.) are operated off of this basic 240 volt control circuit.

### Optional Equipment:

**ELEMENT FUSING** - In addition to all the above construction features, on immersion thermostat models 9 KW through 54 KW there is internal fusing available that protects all elements, magnetic contactors, thermostats and internal wiring circuits. On immersion thermostat models 24 KW and above, additional thermostats are provided so that the maximum element input will not exceed 18 KW per step. Temperature differential between steps can be set as desired. On 24 through 36 KW units, two thermostats are provided and on the 45 and 54 KW units, three thermostats are provided.

For optional fusing, suffix "F" should be added to the model number. Ex. EG120CF-45KW.

# RHEEM-RUUD COMMERCIAL ELECTRIC TANK-TYPE WATER HEATERS

---

## **SAMPLE SPECIFICATIONS (for trade reference only)**

Water heater(s) shall be Rheemglas Commercial Electric Model \_\_\_\_\_, having an input of \_\_\_\_\_ KW and a recovery rate of \_\_\_\_\_ GPH at a \_\_\_\_\_ °F temperature rise, and equipped for \_\_\_\_\_ volt, \_\_\_\_\_ phase operation. Tank shall be lined with a double coating of exclusive Rheemglas high temperature glass formula and furnished with rigidly supported anode rods. Tank shall be designed for 150 PSI working pressure. Tank shall be completely insulated with R-Foam® insulation having a minimum insulating factor of R-16. Water heater shall be equipped with immersion "screw-in" elements, immersion thermostat, magnetic contactors, and manual reset high temperature limit control. Large terminal block that accepts either CU or AL field connect wire, plus grounding screw for attaching an equipment grounding conductor. Water heater shall include a factory installed System Sentinel element diagnostic panel utilizing light emitting diodes. Each L.E.D. will correspond to the number and location of the heating element and monitor their on-off function.

*Optional:* Thermostats for staging input into maximum element step that will not exceed 18 KW per step. (See table for number of thermostats available.)

---

## **THREE YEAR LIMITED WARRANTY**

This product features a three year limited warranty against tank leaks. Please refer to Commercial Warranty Information brochure for complete warranty information.



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

**Rheem Manufacturing Company • Water Heater Division**  
Rheem Canada Ltd./Ltée, 128 Barton Street West, Hamilton, Ontario L8N 3P3  
Customer Service 1-800-268-6966  
Warranty 1-800-263-8342

FORM NO. RR102CE-1CAN Rev. 2 03/05 WP

