Rinnai[®] EXTERNAL (OUTDOOR) NON-CONDENSING TANKLESS WATER HEATER

WITH INTEGRATED PUMP



CIRC-LOGIC RECIRCULATION TECHNOLOGY

Rinnai Circ-Logic recirculation technology allows users to set recirculation patterns that coincide with their hot water usage patterns. Hot water is available when needed, without the expense of circulating it during times of inactivity. Two recirculation modes are available:

- **Dedicated Mode** With a dedicated return line, the integrated pump recirculates water from the tankless water heater through the return line and back to the heater.
- Crossover Mode In applications where a dedicated return line is not available or is difficult to install, Circ-Logic technology allows



<u>Smart-Circ</u>

Intelligent Recirculation

• Intelligent Recirculation "learns" users' hot water patterns to schedule recirculation.

EASE OF INSTALLATION AND SERVICEABILITY

- Compact Design to Save Space
- Wi-Fi Technology for Remote Monitoring, Management and Recirculation Control.
- Improved Gas Conversion
- Includes Certified Isolation Valves for Potable Water

HIGH-EFFICIENCY (NON-CONDENSING) TANKLESS WATER HEATER				
Installation Type	External (Outdoor) Residential Applications. Manufactured (Mobile) Home Certified			
Model Numbers	REP199e (REU-VEP2730WD-US) REP160e (REU-VEP2125WD-US)			
Approved Gas Types	Natural and Propane			
Efficiency	CERTIFIED. UEF: 0.81 (REP199e, REP160e)			
High Altitude Approved	Up to 10,200 ft (3,109 m)			
Water Flow Control	Water Flow Sensor, Electronic Water Control and Bypass Control (RE199/RE180 only)			
Controller	Standard: Integrated Controller			
	Optional: MC-195T-US, RWM101 (control•r™), MC601, MCC601 (RE199/RE180)			
Certifications	AHRI, ANSI Z21.10.3, CSA 4.3			

Warranty

- Heat Exchanger: 15 years or 12,000 operation hours, whichever occurs first
- All Other Parts and Components: 5 Years
- Reasonable Labor: 1 Year

Safety Devices

Flame Failure - Flame Rod, Boiling Protection, Combustion Fan RPM Check, Over Current - Glass Fuse, Remaining Flame (OHS) and Automatic Frost Protection

Included with Purchase

Tankless Water Heater

Additional Features

- Mobile Home Certified
 Complies with South Coast Air Quality
- Ultra Low NOx
- Management District 14 ng/J or 20 ppm NOx Emission Levels

OPTIONAL ACCESSORIES

Condensate Neutralizer, ScaleCutter, Additional Controllers, Pipe Cover, EZConnect[™] Cables, control·r[™] Wi-Fi Module, External Recirculation Pump, Wireless Accessories, and many more.

Visit rinnai.us for a complete list of accessories.



CERTIFIED TO ANSI Z21.10.3 - CSA 4.3

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TECHNICAL SPECIFICATIONS

	SPECIFICATION	REP199e	REP160e		
Dime	ensions - w, h, d	14.05 in. x 24.64 in. x 11.7 in. (357 mm x 626 mm x 297 mm)			
Minimum Gas Consumption Btu/h		10,400			
Maximum Gas Consumption Btu/h		199,000	160,000		
Flow Rate ¹ (Min - Max)		0.26 - 7.9 GPM (1.0 - 30 L/min)	0.26 - 6.6 GPM (1.0 - 25 L/min)		
Max Flow Rate with Parameter Adjustment		7.9 GPM (30 L/min)	6.6 GPM (25 L/min)		
Activation Flow Rate		0.4 GPM (1.5 L/min)			
Weight		50.2 lb (22.8 kg)	46.7 lb (26.2 kg)		
Sound Level		54 dB			
	Normal	74 W	60 W		
	Standby	1 W			
ical	Freeze Protection	122 W			
Electrical	Normal with Pump Operation	142 W	129 W		
	Max Current	4 Amps			
	Fuse	10 Amps			
Temperature		120°F-140°F (49°C-60°C)			
By-Pass Flow Control		Fixed Bypass			
Gas Supply Pressure ²		 Natural: 4.0 in. w.c 10.5 in. w.c. Propane: 8.0 in. w.c 13.0 in. w.c. 			
Ignition System		Direct Electronic Ignition			
Electronic Connections		 Appliance: AC 120 Volts, 60Hz. 			
Water Supply Pressure		 Minimum: 20 PSI (Recommended 30-80 PSI for max performance) Maximum: 150 PSI 			
Cont	roller Cable	Non-Polarized Two Core Cable (Minimum 22 AWG)			
Servi	ce Connections	 Gas Supply: 3/4 in. (19 mm) NPT Cold Water Inlet: 3/4 in. (19 mm) NPT Hot Water Outlet: 3/4 in. (19 mm) NPT 			
Clearances		 Top: 2 in. (51 mm)* Bottom/Ground: 12 in. (305 mm) Front: 0 in.* 	 Back: 0 in. Sides: 2 in. (51 mm)** Vent: 0 in. 		

DIMENSIONS

in. (mm)







BOTTOM



Connection		in.	mm
COLD	С	2.87	73
НОТ	Н	6.85	173
GAS	G	4.76	121
Bracket	В	0.59	N/A

* Clearance for servicing is 24 in. (610 mm) in front of water heater ** Add 0.125 in. (3.18 mm) for recess box

¹ Minimum flow may vary slightly depending on the temperature setting and the inlet water temperature.
 ² Minimum activation flow is 0.4 GPM (1.5 L/min).
 ² The maximum gas supply pressure must not exceed the value specified by the manufacturer.

WATER FLOW CURVE



REP199e Pressure Drop Curve (Water Heater + Pump)



REP160e Pressure Drop Curve (Water Heater + Pump)



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