




SUPER-HIGH-EFFICIENCY (CONDENSING) TANKLESS WATER HEATER

Installation Type	External (Outdoor) Commercial Applications	
Model Numbers	CU199e (REU-N3237WC-US) CU160e (REU-N2530WC-US)	
Approved Gas Types	Natural and Propane	
Efficiency	 UEF up to 0.93	
	Ratings not certified by AHRI	Thermal Efficiency: Up to 97% EF up to 0.96
High Altitude Approved	Up to 10,200 ft (3,109 m)	
Water Flow Control	Water Flow Sensor, Electronic Water Control and Bypass Control	
Controller	Standard: Integrated Controller Optional: MC-91-2US	
Certifications	AHRI, ANSI Z21.10.3, CSA 4.3, and ENERGY STAR®	

Warranty

- Heat Exchanger: 8 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
- Pressure Relief Valve and Adapter
- Isolation Valve Kit
- Integrated Controller
- Recirculation Pump Cable

Additional Features

- Complies with South Coast Air Quality Management District 14 ng/J or 20 ppm NOx Emission Levels
- Ultra Low NOx
- Tankless Rack System™ Compatible
- 1/2 in. (13 mm) Gas Line Compatible

EASE OF INSTALLATION AND SERVICEABILITY

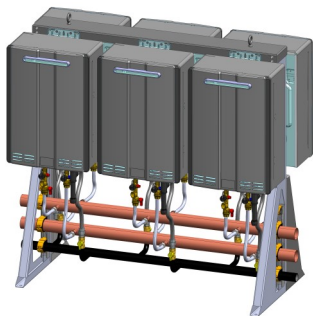
- Compact Design to Save Space
- Wi-Fi Technology for Remote Monitoring and Management
- Simple Gas Conversion
- Electronically Connect up to 24 Water Heaters to Operate as One Hot Water Source

OPTIONAL ACCESSORIES

Condensate Neutralizer, ScaleCutter, Drain Down Kit, Additional Controllers, Recess Box, Pipe Cover, Recirculation Pump, DPS/MIS Switch, EZConnect™ Cables, control-r™ Wi-Fi Module, Wireless Accessories, and many more. Visit rinnai.us for a complete list of accessories.

COMMERCIAL APPLICATIONS

Commercial Tankless Rack Systems



- Fully-assembled, comprehensive water heating solutions
- Numerous configurations: Free Standing, Inline Free Standing, Inline Wall Mount, Wall Hanging, and Corner
- Made to Order Customized Solutions



CERTIFIED TO ANSI Z21.10.3 — CSA 4.3

SENSE™ TECHNICAL SPECIFICATIONS

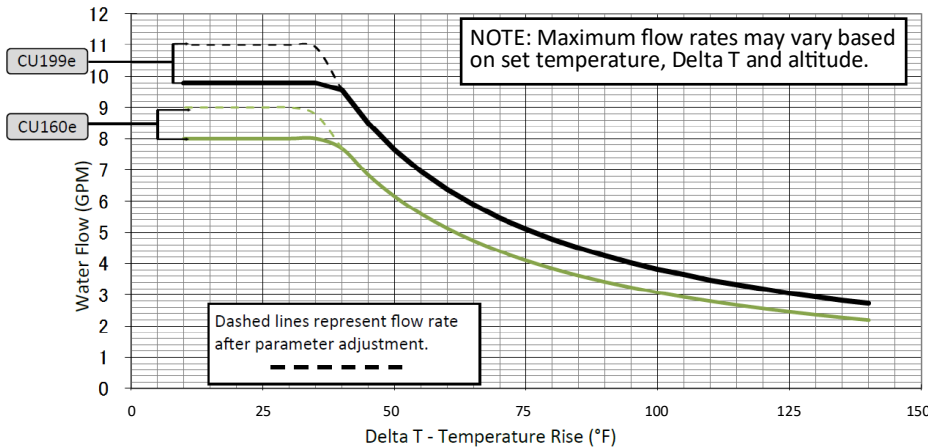
SPECIFICATION		CU199e	CU160e
Dimensions - w, h, d		18.5 in. x 26.4 in. x 11.4 in. (470 mm x 670 mm x 290 mm)	
Minimum Gas Consumption Btu/h		15,000	
Maximum Gas Consumption Btu/h		199,000	160,000
Flow Rate ¹ (Min - Max)		0.26 - 9.8 GPM (1.0 - 37 L/min)	0.26 - 8.0 GPM (1.0 - 30 L/min)
Max Flow Rate with Parameter Adjustment		11 GPM (42 L/min)	9 GPM (34 L/min)
Weight		64 lb (29 kg)	62 lb (28 kg)
Sound Level		53 dB	52 dB
Electrical	Normal	81 W	49 W
	Standby	1.3 W	
	Freeze Protection	152 W	
	Max Current	4 Amps	
	Fuse	10 Amps	
Temperature		<ul style="list-style-type: none"> Minimum: 98° F (37° C) Default Maximum: 140° F (60° C) Default 185° F (85° C) With Parameter Adjustment 	
By-Pass Flow Control		Electronic	
Gas Supply Pressure ²		<ul style="list-style-type: none"> Natural: 3.5 in. w.c. - 10.5 in. w.c. Propane: 8.0 in. w.c. - 13.5 in. w.c. 	
Ignition System		Direct Electronic Ignition	
Electronic Connections		<ul style="list-style-type: none"> Appliance: AC 120 Volts, 60Hz. Temperature Controller: DC 12 Volts (Digital) 	
Water Supply Pressure		<ul style="list-style-type: none"> Minimum: 50 PSI (Recommended 60-80 PSI for max performance) Maximum: 150 PSI 	
Controller Cable		Non-Polarized Two Core Cable (Minimum 22 AWG)	
Service Connections		<ul style="list-style-type: none"> 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 Condensate Drain: 1/2 in. (13 mm) NPT 	
Clearances		<ul style="list-style-type: none"> Top: 2 in. (51 mm)* Bottom/Ground: 12 in. (305 mm) Front: 0 in.** Back: 0 in. Sides: 2 in. (51 mm)*** Front Exhaust: 24 in. (610 mm) 	

* 0 in. from vent components
 ** Clearance for servicing is 24 in. (610 mm) in front of water heater
 *** Add 0.25 in. (6.35 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).
³ The maximum gas supply pressure must not exceed the value specified by the manufacturer.

SENSE™ WATER FLOW CURVE

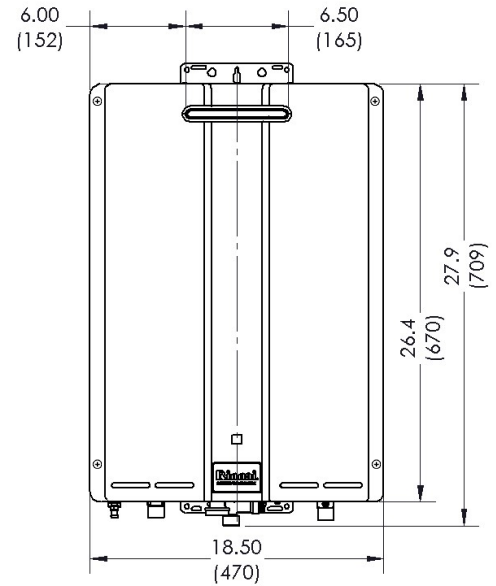
Flow curves apply only to incoming water temperatures of 70° F (21° C) or less.
 For incoming water temperatures greater than 70° F (21° C), please contact Rinnai.



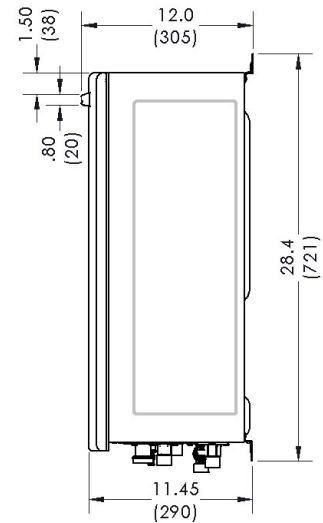
SENSE™ DIMENSIONS

in. (mm)

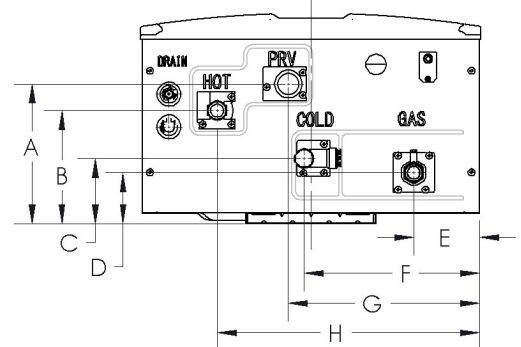
FRONT



SIDE



BOTTOM



Connection		in.	mm
COLD	F	9.54	242
	C	3.56	90
HOT	H	14.27	362
	B	6.16	156
GAS	E	3.57	91
	D	2.78	71
PRV	G	10.39	264
	A	7.60	193