



■ FLEXIBLE VENTING OPTIONS

- Concentric or Schedule 40 PVC/CPVC
- Direct Vent (Concentric and Twin Pipe)
- Non-Direct Vent (Room Air)
- Common Vent (Direct Vent and Room Air)
- Maximum Equivalent Vent Lengths:

Twin Pipe

| | | |
|--------------|---------------|---------------|
| Vent Sizes | 2 in. (51 mm) | 3 in. (76 mm) |
| Vent Lengths | 65 ft (20 m) | 150 ft (46 m) |

Concentric

| | | |
|--------------|---------------|---------------|
| Vent Sizes | 2 in. X 4 in. | 3 in. X 5 in. |
| Vent Lengths | 65 ft (20 m) | 150 ft (46 m) |

■ EASE OF INSTALLATION AND SERVICEABILITY

- Compact Design to Save Space
- Wi-Fi Technology for Remote Monitoring and Management
- Sliding Mounting Bracket for Easy Installation
- Simple Gas Conversion

■ OPTIONAL ACCESSORIES

Room Air Screen, Condensate Neutralizer, ScaleCutter, Drain Down Kit, Additional Controllers, 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.

SUPER-HIGH-EFFICIENCY (CONDENSING) TANKLESS WATER HEATER

| | | |
|-------------------------------|--|--|
| Installation Type | Internal (Indoor) Residential Applications. Manufactured (Mobile) Home Certified | |
| Model Numbers | RU199i (REU-N3237FF-US) RU180i (REU-N2934FF-US) RU160i (REU-N2530FF-US) RU130i (REU-N2024FF-US) | |
| Approved Gas Types | Natural and Propane | |
| Efficiency |  | UEF: 0.93 (RU199i, RU180i, RU160i) 0.91 (RU130i) Ratings not certified by AHRI EF: 0.96 (RU199i) 0.95 (RU180i, RU160i, RU130i) |
| 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-195T-US, MC-100V-1US, BC-100V-1US, MCC-91-2US | |
| Certifications | AHRI, ANSI Z21.10.3, CSA 4.3, and ENERGY STAR® | |

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, Wall Mounting Bracket, Pressure Relief Valve and Adapter, Isolation Valve Kit, Vent Screens (x2), Vent Screen Screws (x2) and Self-Tapping Screws (x2)

Additional Features

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



CERTIFIED TO ANSI Z21.10.3 — CSA 4.3

SENSE™ TECHNICAL SPECIFICATIONS

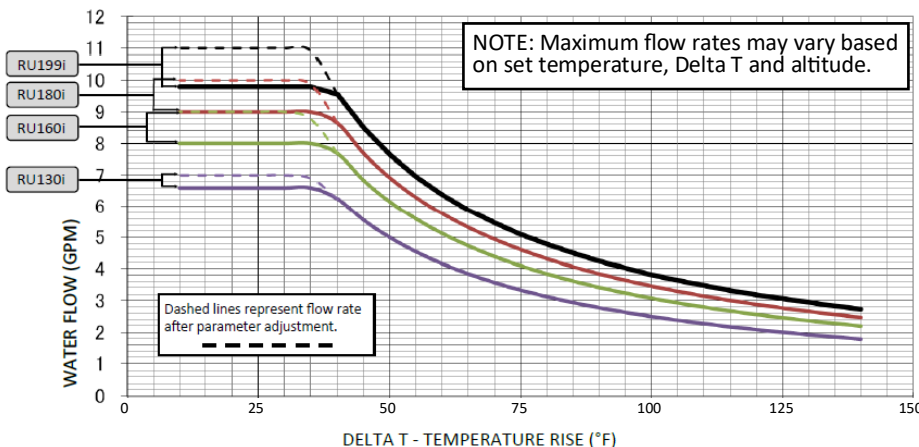
| SPECIFICATION | | RU199i | RU180i | RU160i | RU130i |
|---|-------------------|--|---------------------------------|---------------------------------|---------------------------------|
| Dimensions - w, h, d | | 18.5 in. x 26.4 in. x 11.4 in. (470 mm x 670 mm x 290 mm) | | | |
| Minimum Gas Consumption Btu/h | | 15,000 | | | |
| Maximum Gas Consumption Btu/h | | 199,000 | 180,000 | 160,000 | 130,000 |
| Flow Rate ¹ (Min - Max) | | 0.26 - 9.8 GPM (1.0 - 37 L/min) | 0.26 - 9.0 GPM (1.0 - 34 L/min) | 0.26 - 8.0 GPM (1.0 - 30 L/min) | 0.26 - 6.6 GPM (1.0 - 24 L/min) |
| Max Flow Rate with Parameter Adjustment | | 11 GPM (42 L/min) | 10 GPM (38 L/min) | 9 GPM (34 L/min) | 7 GPM (26 L/min) |
| Weight | | 64 lb (29 kg) | 64 lb (29 kg) | 62 lb (28 kg) | 62 lb (28 kg) |
| Sound Level | | 48 dB | 47 dB | 47 dB | 47 dB |
| Electrical | Normal | 84 W | 65 W | 52 W | 38 W |
| | Standby | 1.3 W | | | |
| | Freeze Protection | 148 W | | | |
| | Max Current | 4 Amps | | | |
| | Fuse | 10 Amps | | | |
| Temperature | | <ul style="list-style-type: none"> Minimum: 98° F (37° C) Default Maximum: 120° F (49° C) Default 140° F (60° 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)*** Vent: 0 in. | | | |

* 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. 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.

SENSE™ WATER FLOW CURVE

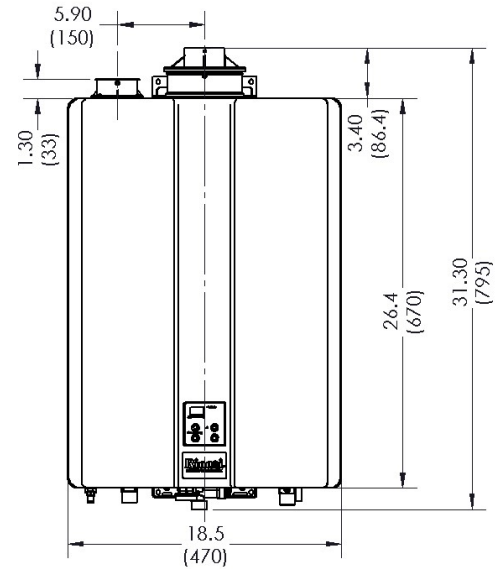
Flow curves apply only to incoming water temperatures of 70° F (21° C) or less. For incoming water temperatures greater than 70° F (21° C), please contact Rinnai.



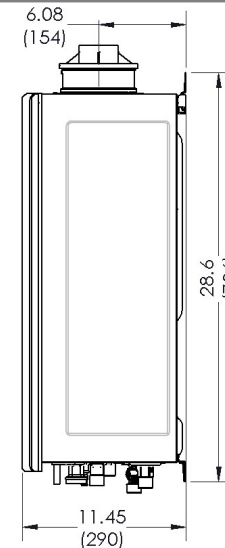
SENSE™ DIMENSIONS

in. (mm)

FRONT

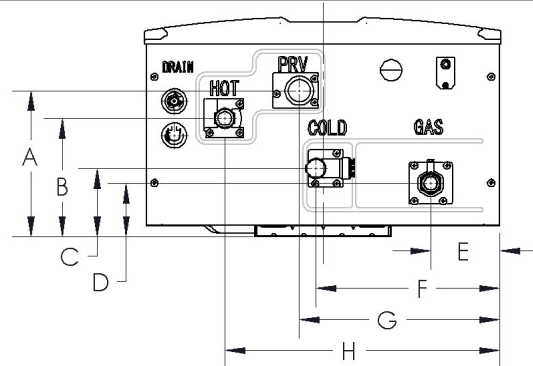


SIDE



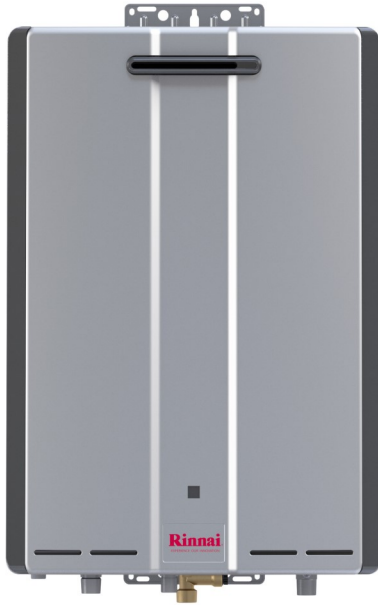
Vent Connection:
 2 in. (51 mm) nominal PVC/
 Polypropylene or
 3 in./5 in. Concentric.

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 |

RESIDENTIAL




■ EASE OF INSTALLATION AND SERVICEABILITY

- Compact Design to Save Space
- Wi-Fi Technology for Remote Monitoring and Management
- Simple Gas Conversion

■ 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.

SUPER-HIGH-EFFICIENCY (CONDENSING) TANKLESS WATER HEATER

| | | |
|-------------------------------|--|---|
| Installation Type | External (Outdoor) Residential Applications. Manufactured (Mobile) Home Certified | |
| Model Numbers | RU199e (REU-N3237W-US) RU180e (REU-N2934W-US) RU160e (REU-N2530W-US) RU130e (REU-N2024W-US) | |
| Approved Gas Types | Natural and Propane | |
| Efficiency |  | UEF: 0.93 (RU199e, RU180e, RU160e) 0.92 (RU130e) |
| | Ratings not certified by AHRI | EF: 0.96 (RU199e, RU180e, RU160e) 0.95 (RU130e) |
| 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-195T-US, MC-100V-1US, BC-100V-1US, MCC-91-2US | |
| Certifications | AHRI, ANSI Z21.10.3, CSA 4.3, and ENERGY STAR® | |

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
- Pressure Relief Valve and Adapter
- Isolation Valve Kit
- Integrated Controller

Additional Features

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



CERTIFIED TO ANSI Z21.10.3 – CSA 4.3

SENSE™ TECHNICAL SPECIFICATIONS

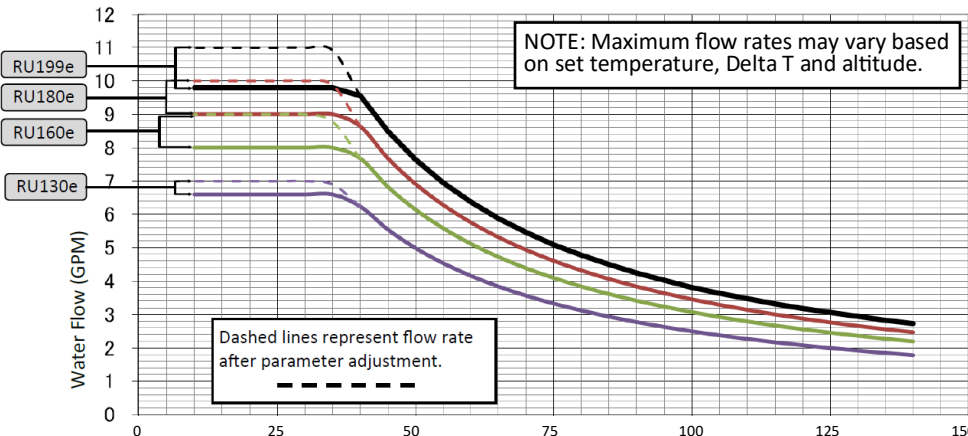
| SPECIFICATION | | RU199e | RU180e | RU160e | RU130e |
|---|-------------------|---|---------------------------------|---------------------------------|---------------------------------|
| Dimensions - w, h, d | | 18.5 in. x 26.4 in. x 11.4 in. (470 mm x 670 mm x 290 mm) | | | |
| Minimum Gas Consumption Btu/h | | 15,000 | | | |
| Maximum Gas Consumption Btu/h | | 199,000 | 180,000 | 160,000 | 130,000 |
| Flow Rate ¹ (Min - Max) | | 0.26 - 9.8 GPM (1.0 - 37 L/min) | 0.26 - 9.0 GPM (1.0 - 34 L/min) | 0.26 - 8.0 GPM (1.0 - 30 L/min) | 0.26 - 6.6 GPM (1.0 - 24 L/min) |
| Max Flow Rate with Parameter Adjustment | | 11 GPM (42 L/min) | 10 GPM (38 L/min) | 9 GPM (34 L/min) | 7 GPM (26 L/min) |
| Weight | | 64 lb (29 kg) | 64 lb (29 kg) | 62 lb (28 kg) | 62 lb (28 kg) |
| Sound Level | | 53 dB | 52 dB | 52 dB | 52 dB |
| Electrical | Normal | 81 W | 62 W | 49 W | 36 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: 120° F (49° C) Default 140° F (60° 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.
 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.

SENSE™ WATER FLOW CURVE

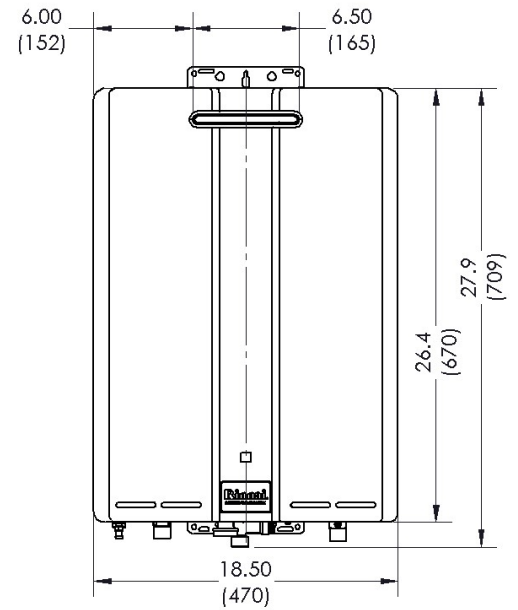
Flow curves apply only to incoming water temperatures of 70° F (21° C) or less.
 For incoming water temperatures greater than 70° F (21° C), please contact Rinnai.



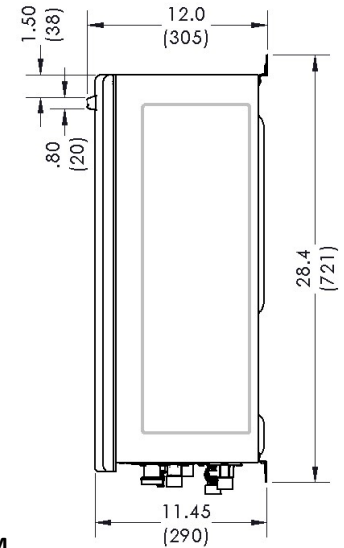
SENSE™ DIMENSIONS

in. (mm)

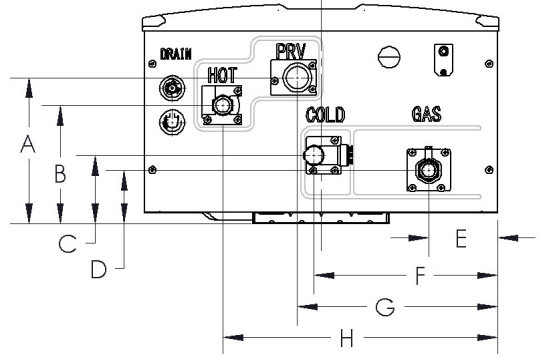
FRONT



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 |