**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)
  Vent lengths up to 150 ft with eight Tankless Water Heater units.
- 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, Recess Box, Recirculation Pump, DPS/MIS Switch, EZConnect™ Cables, Cascade 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) Commercial Applications

**Model Numbers**
- CU199i (REU-N3237FFC-US)
- CU160i (REU-N2530FFC-US)

**Approved Gas Types**
- Natural and Propane

**Efficiency**
- Ratings not certified by AHRI
- Thermal Efficiency: Up to 97%
  - EF: 0.96 (CU199i)
  - 0.95 (CU160i)

**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-US

**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, 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**
- 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

**COMMERCIAL APPLICATIONS**
- Commercial Tankless Rack Systems
- Demand Duo™ Commercial Hybrid System

**CERTIFIED TO ANSI Z21.10.3 — CSA 4.3**

**RINNAI.US • 1-800-621-9419**
**SENSEI™ TECHNICAL SPECIFICATIONS**

<table>
<thead>
<tr>
<th>SPECIFICATION</th>
<th>CU199i</th>
<th>CU160i</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions - w, h, d</td>
<td>18.5 in. x 26.4 in. x 11.4 in. (470 mm x 670 mm x 290 mm)</td>
<td></td>
</tr>
<tr>
<td>Minimum Gas Consumption Btu/h</td>
<td>15,000</td>
<td></td>
</tr>
<tr>
<td>Maximum Gas Consumption Btu/h</td>
<td>199,000</td>
<td>160,000</td>
</tr>
<tr>
<td>Flow Rate¹ (Min - Max)</td>
<td>0.26 - 9.8 GPM (1.0 - 37 L/min)</td>
<td>0.26 - 8.0 GPM (1.0 - 30 L/min)</td>
</tr>
<tr>
<td>Max Flow Rate with Parameter Adjustment</td>
<td>11 GPM (42 L/min)</td>
<td>9 GPM (34 L/min)</td>
</tr>
<tr>
<td>Weight</td>
<td>64 lb (29 kg)</td>
<td>62 lb (28 kg)</td>
</tr>
<tr>
<td>Sound Level</td>
<td>49 dB</td>
<td>48 dB</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Electric</th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>84 W</td>
<td></td>
</tr>
<tr>
<td>Standby</td>
<td>1.3 W</td>
<td></td>
</tr>
<tr>
<td>Freeze Protection</td>
<td>148 W</td>
<td></td>
</tr>
<tr>
<td>Max Current</td>
<td>4 Amps</td>
<td></td>
</tr>
<tr>
<td>Fuse</td>
<td>10 Amps</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Temperature</th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Minimum: 98° F (37° C) Default</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum: 140° F (60° C) Default</td>
<td></td>
<td></td>
</tr>
<tr>
<td>185° F (85° C) with Parameter Adjustment</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>By-Pass Flow Control</th>
<th>Electronic</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Supply Pressure²</td>
<td>Natural: 3.5 in. w.c. - 10.5 in. w.c.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Propane: 8.0 in. w.c. - 13.5 in. w.c.</td>
<td></td>
</tr>
<tr>
<td>Ignition System</td>
<td>Direct Electronic Ignition</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Electronic Connections</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Appliance</td>
<td>AC 120 Volts, 60Hz.</td>
<td></td>
</tr>
<tr>
<td>Temperature Controller</td>
<td>DC 12 Volts (Digital)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Water Supply Pressure</th>
<th>Minimum: 50 PSI (Recommended 60-80 PSI for max performance)</th>
<th>Maximum: 150 PSI</th>
</tr>
</thead>
</table>

| Controller Cable                      | Non-Polarized Two Core Cable (Minimum 22 AWG) |         |

| Service 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 |         |
|                                      | Condensate Drain: 1/2 in. (13 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. |         |

² Minimum flow may vary slightly depending on the temperature setting and the inlet water temperature.

³ Minimum activation flow is 0.4 GPM (1.5 L/min).

The maximum gas supply pressure must not exceed the value specified by the manufacturer.

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**SENSEI™ 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. 

**NOTE:** Maximum flow rates may vary based on set temperature, Delta T and altitude.