

### COMMERCIAL WATER HEATING SOLUTION



#### ■ DuoSmart Tank Technology

119-Gallon Storage Tank Comes Equipped with Recovery Pump, Controller, Isolation Valves (Pre-Installed) and Controller Box.



#### ■ Easy Installation and Serviceability

Rack system with two pre-installed Rinnai SENSEI™ CU199 Condensing Tankless Water Heaters and manifold. Simply attach frame legs and push rack close to tank.



#### SUPER-HIGH-EFFICIENCY (CONDENSING) HYBRID WATER HEATING SYSTEM

|   |  |
|---|--|
| <b>Installation Type</b>  | Internal (Indoor) Commercial Applications  |
| <b>Model Number</b>   | CHS398100CU  |
| <b>Approved Gas Types</b>   | Natural and Propane  |
| <b>Maximum Gas Consumption</b>  | 398,000 BTU/h  |
| <b>Thermal Efficiency (CU199)</b>   | 97%  |
| <b>First Hour Delivery<sup>1</sup></b>  | 543 Gallons (2,055 Liters)   |
| <b>High Altitude Approved</b>   | Up to 10,200 Ft (3,109 M)  |
| <b>Recovery</b>   | 459 GPH @ 100° Δ T   |
| <b>Recirculation Pump</b>   | Grundfos UPS 26-150 (S)F; 3 Speed  |
| <b>Tank Capacity</b>  | 119 Gallons (450 L)  |
| <b>Water Flow Control</b>   | Water Flow Sensor, Electronic Water Control and Bypass Control   |
| <b>Water Temperature Control</b>  | Simulation Feed Forward and Feedback   |
| <b>Controller</b>   | MCC-91-2US   |
| <b>Venting Material</b>   | Polypropylene, PVC   |
| <b>Venting Options</b>  | Concentric Polypropylene, Twin Pipe, or Common Vent Polypropylene/PVC/CPVC. Vent lengths up to 150 ft. |
| <b>Certifications</b>   | AHRI, ANSI Z21.10.3, CSA 4.3, and Commercial ENERGY STAR® Certified (CU199i)                           |
| <b>Complies with South Coast Air Quality Management District 14 ng/J or 20 ppm NOx Emission Levels (CU199i)</b> | Yes  |
| <b>Ultra Low NOx</b>  | Yes  |
| <b>Wi-Fi Ready</b>  | Yes  |

<sup>1</sup> First Hour Delivery Rating is a theoretical calculation based on 70% usable tank capacity.  
 Tank Capacity x .70 + (recovery) = First Hour Rating

**Included with purchase:** Rack System with Two (2) Pre-installed Rinnai Tankless Water Heaters; 119-Gallon Storage Tank; Recovery Pump; Pump Isolation Valves; Electric Assembly; Recovery Controller Box; Water Flex Lines; Securing Bracket; Installation Hardware; and Documentation.

CU199 TANKLESS WATER HEATER:  
 CERTIFIED TO ANSI Z21.10.3 — CSA 4.3

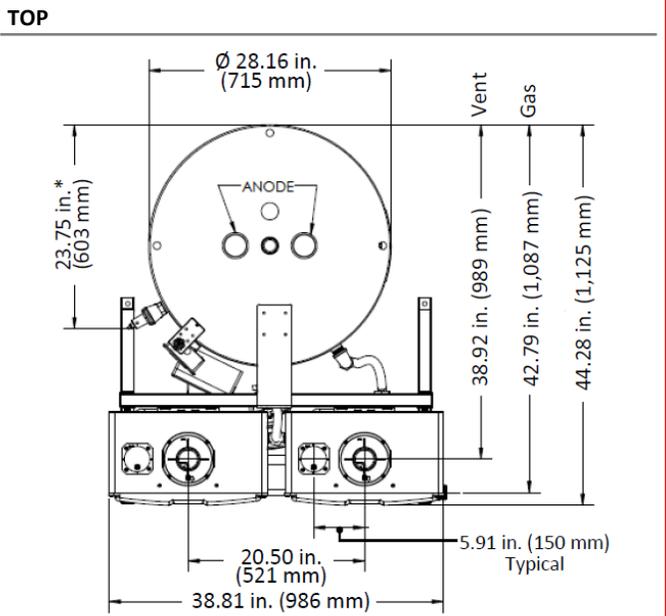


# TECHNICAL SPECIFICATIONS

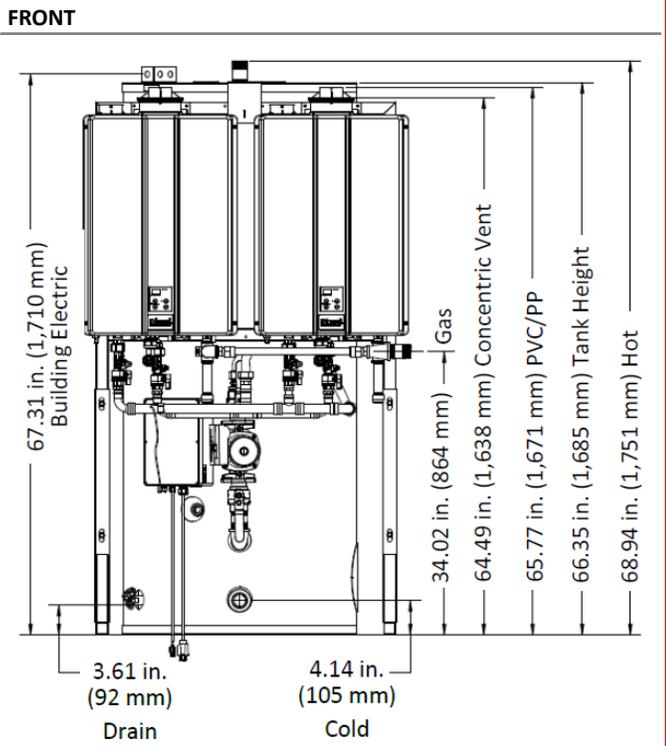
|                                      |  |   |
|--------------------------------------|--|---|
| Minimum Gas Consumption Btu/h (kW/h) | 30,400 (9)   |   |
| Maximum Gas Consumption Btu/h (kW/h) | 398,000 (116.6)  |   |
| Tank Volume                          | 119 Gallons (450 L)  |   |
| Thermal Efficiency (CU199)           | 97%  |   |
| Dimensions (Assembled) in. (mm)      | W 38.81 x H 69.60 x D 40.96<br>(W 985.8 x H 1,767.8 x D 1,040.4)   |   |
| Weight                               | Rack   | 220 lbs (100 kg) (with two tankless water heaters)  |
|                                      | Tank   | 310 lbs (141 kg)                                    |
|                                      | Combined   | 530 lbs (240 kg)                                    |
| Sound Level                          | 49 dB  |   |
| Electrical (CU199)                   | Normal   | 265 W   |
|                                      | Standby  | 44 W  |
|                                      | Freeze Protection  | 148 W   |
|                                      | Max Current  | 5.5 Amps  |
|                                      | Fuse   | Tankless Engine: 10 Amps, System Controller 10 Amps |
| Temperature                          | Minimum: 98° F (37° C) Default<br>Maximum: 185° F (85° C) Default  |   |
| By-Pass Flow Control                 | Electronic   |   |
| Gas Supply Pressure <sup>2</sup>     | Natural: 3.5 in. w.c. - 10.5 in. w.c.<br>Propane: 8.0 in. w.c. - 13.5 in. w.c.   |   |
| Category                             | Category IV  |   |
| Ignition System                      | Direct Electronic Ignition   |   |
| Electronic Connections               | Appliance: AC 120 Volts, 60Hz.<br>Integrated Temperature Controller: DC 12 Volts (Digital)                                       |   |
| Water Supply Pressure                | Maximum: 150 PSI   |   |
| Connections                          | Gas Supply Inlet: 1-1/2 in. (19 mm) MNPT<br>Hot Water Outlet: 1-1/2 in. (19 mm) MNPT<br>Cold Water Inlet: 1-1/2 in. (19 mm) MNPT |   |

2 Maximum gas supply pressure must not exceed the value specified by the manufacturer.

# DIMENSIONS



\* Temperature and Pressure Relief Valve



# RECOVERY CAPACITIES

| U.S. Gallons / HR Liters / HR at Temperature Rise Indicated |            |       |       |       |       |       |       |       |       |       |       |       |       |
|---|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Tank Capacity   | °F         | 30    | 40    | 50    | 60    | 70    | 80    | 90    | 100   | 110   | 120   | 130   | 140   |
|   | °C         | 17    | 22    | 28    | 33    | 39    | 44    | 50    | 56    | 61    | 67    | 72    | 78    |
| 119 U.S. Gal.   | <b>GPH</b> | 1,528 | 1,147 | 917   | 764   | 655   | 573   | 510   | 459   | 417   | 382   | 353   | 328   |
| 450 Liters  | <b>LPH</b> | 5,784 | 4,342 | 3,471 | 2,892 | 2,479 | 2,169 | 1,931 | 1,738 | 1,579 | 1,446 | 1,336 | 1,242 |