

### RESIDENTIAL



### ■ 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)

### ■ OPTIONAL ACCESSORIES

Condensate Neutralizer, ScaleCutter, Control-R™ Wi-Fi Module, Wireless Accessories, and many more.  
Visit [rinnai.us](http://rinnai.us) for a complete list of accessories.

### ■ EASE OF INSTALLATION AND SERVICEABILITY

- Wi-Fi Technology for Remote Monitoring and Management (with Control-R™ Wi-Fi Module accessory)
- Simple Gas Conversion

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

<b>Installation Type</b>	Internal (Indoor) Residential Applications
<b>Model Numbers</b>	RHS199100SE
<b>Approved Gas Types</b>	Natural and Propane
<b>Maximum Gas Consumption</b>	199,000 Btu/h (58.3 kW/h)
<b>Uniform Energy Factor (UEF)</b>	RU199i: 0.93
<b>Energy Factor (EF) (For Canada)</b>	RU199i: 0.96
<b>First Hour Delivery (100°F Rise)</b>	315 Gallons (1,192 L)
<b>High Altitude Approved</b>	Up to 10,200 Ft (3,109 M)
<b>Tank Capacity</b>	119 Gallons (450 L)
<b>Water Flow Control</b>	Water Flow Sensor, Electronic Water Control and Bypass Control
<b>Controller</b>	Standard: Integrated Controller Optional: MC-91-2US
<b>Certifications</b>	AHRI, ANSI Z21.10.3, CSA 4.3, and Energy Star®

#### Storage Tank

- 2 in. (51 mm) Eco-friendly foam insulation
- Glass-lined inner tank
- 1-1/2 in. (38 mm) MNPT dielectric hot and cold connections
- Pre-installed temperature and pressure relief valve
- Brass drain valve
- Dual magnesium anode rods
- Hand hole clean-out

#### Warranty

- Heat Exchanger: 15 years or 12,000 operation hours, whichever occurs first
- Tank: 6 years
- All Other Parts and Components: 5 Years
- Reasonable Labor: 1 Year  
(Refer to the Installation and Operation Manual for further warranty information.)

#### Safety Devices

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

#### Additional Features

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



CERTIFIED TO ANSI Z21.10.3 – CSA 4.3

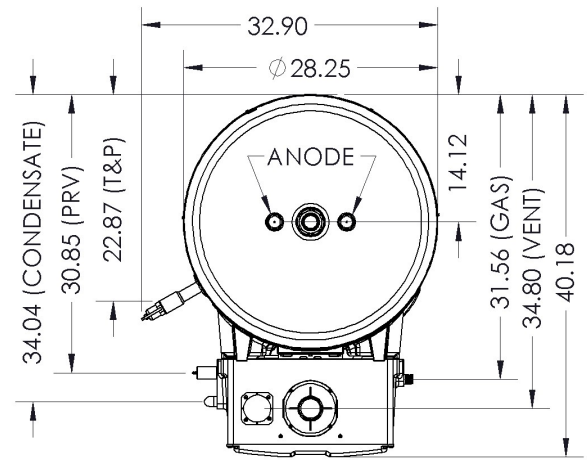
## TECHNICAL SPECIFICATIONS

SPECIFICATION		RHS199100SE
Product Description		Condensing Hybrid System: Condensing Tankless Water Heater, Insulated Storage Tank, Pump and Control
Minimum Gas Consumption Btu/h (kW/h)		15,000 (4.5)
Maximum Gas Consumption Btu/h (kW/h)		199,000 (58.3)
Tank Volume		119 Gallons (450 Liters)
Weight		431 lb (195 kg)
Sound Level		49 dB
Electrical	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		<ul style="list-style-type: none"> <li>• Minimum: 98° F (37° C) Default</li> <li>• Maximum: 140° F (60° C) Default</li> <li>185° F (85° C) With Parameter Adjustment</li> </ul>
By-Pass Flow Control		Electronic
Gas Supply Pressure		<ul style="list-style-type: none"> <li>• Natural: 3.5 in. w.c. - 10.5 in. w.c.</li> <li>• Propane: 8.0 in. w.c. - 13.5 in. w.c.</li> </ul>
Ignition System		Direct Electronic Ignition
Electronic Connections		<ul style="list-style-type: none"> <li>• Appliance: AC 120 Volts, 60Hz.</li> <li>• Temperature Controller: DC 12 Volts (Digital)</li> </ul>
Water Supply Pressure		<ul style="list-style-type: none"> <li>• Maximum: 150 PSI</li> </ul>
Service Connections		<ul style="list-style-type: none"> <li>• Gas Supply: 3/4 in. (19 mm) NPT</li> <li>• Cold Water Inlet: 1-1/2 in. (38 mm) NPT</li> <li>• Hot Water Outlet: 1-1/2 in. (38 mm) NPT</li> <li>• Condensate Drain: 1/2 in. (13 mm) (SOCKET)</li> </ul>

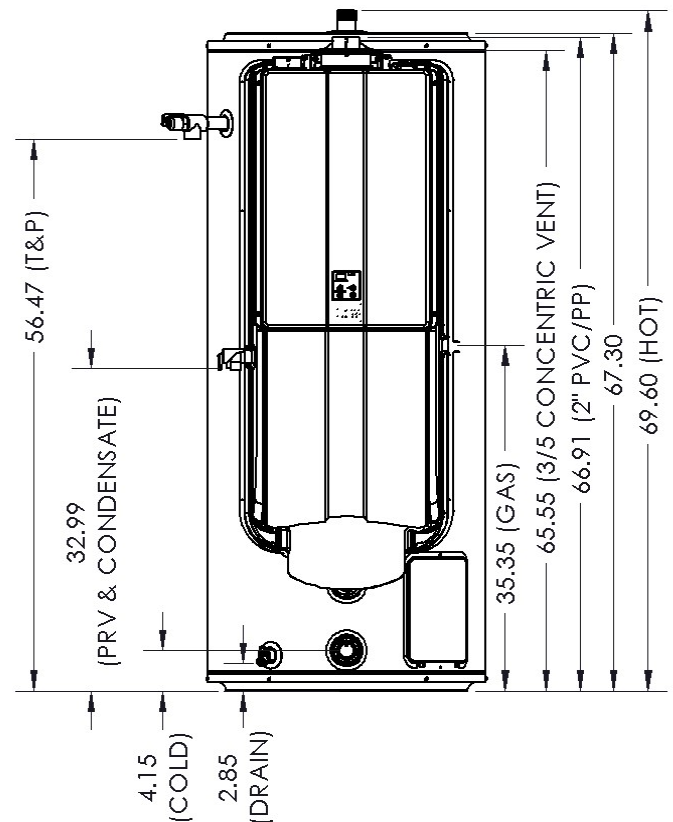
## DIMENSIONS

INCHES

### TOP



### FRONT



T&P - Temperature and Pressure relief valve

## RECOVERY CAPACITIES

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Tank Capacity	U.S. GALLON/HR LITERS/HR AT TEMPERATURE RISE INDICATED												
	°F	30°F	40°F	50°F	60°F	70°F	80°F	90°F	100°F	110°F	120°F	130°F	140°F
	°C	17°C	22°C	28°C	33°C	39°C	44°C	50°C	56°C	61°C	67°C	72°C	78°C
119 U.S. Gals.	GPH	772	579	463	386	331	289	257	232	211	193	178	165
450 Liters	LPH	2922	2192	1753	1461	1253	1093	973	878	799	731	673	625