



# CHS19980RECiN

INTERNAL (INDOOR)  
COMMERCIAL HYBRID SYSTEM

## Engineering Specifications

Commercial hybrid system shall include a Rinnai Tankless Water Heater REC199iN 199,000 BTU/hr non-condensing water heater, storage tank with 80 gallon capacity, and recovery pump. Engine controller shall include integrated recovery logic to control the recovery pump.

System shall include pre-installed 36 in. gas flex line with 360° swivel fitting. System shall include a pre-installed electrical junction box.

Tankless Water Heater shall be non-condensing, gas fired, water heater design certified to the ANSI Z21.10.3 standard for gas fired water heaters.

Tankless Water Heater shall have a Thermal Energy Factor of 0.80.

Tankless Water Heater shall produce no more than 14 ng/J NOx emissions when tested in accordance with the Rules and Regulations of the South Coast Air Quality Management District (SCAQMD).

Tankless Water Heater shall be configured to operate with natural gas and a 120 volt/60 Hz AC power source.

Tankless Water Heater shall have a BTU input range of 11,900 BTU/hr to 199,000 BTU/hr, and a maximum hot water outlet capacity of 9.8 gallons per minute (with a 30°F temperature rise).

Tankless Water Heater shall be microprocessor controlled and utilize a direct electronic ignition system (with no standing pilot), fully modulating gas control valve, turbine flow meter, automatic electro-mechanical water flow control valve, and water temperature thermistors to maintain outlet water temperature between  $\pm 2^\circ\text{F}$  of set point temperature.

Tankless Water Heater shall incorporate the following internal safety devices: flame failure lockout, boiling protection lockout, thermal overheat protection, internal freeze protection for ambient temperatures as low as  $-22^\circ\text{F}$ , and lockout protection in the event of a blocked flue.

Tankless Water Heater shall be provided with a temperature thermostat with an adjustable set point range of 120°F to 180°F.

Tankless Water Heater shall also be capable of storing and displaying a history of up to nine diagnostic maintenance codes via the display on the temperature thermostat controller.

Tankless Water Heater shall have downward fired fiber mesh burners, solid brass water flow control valve, and solid brass inlet and outlet water connections.

Storage tanks shall have 80 gallon internal capacity, 2 in. thick uniform foam insulation. Inner tank shall be formulated with an enamel coating. Storage tank(s) shall have a test pressure of 300 PSI and working pressure of 150 PSI. Storage tank(s) shall have 1-1/2 in. MNPT dielectric hot and cold water connections, pressure relieve valve, brass drain valve and dual magnesium anode rods.

Tankless Water Heater shall have a copper heat exchanger warranted against material defects or workmanship for a period of:

- Heat Exchanger: 8 years or 12,000 operation hours, whichever occurs first
- Tank: 6 Years
- All Other Parts and Components: 5 Years
- Reasonable Labor: 1 Year

For full warranty details refer to water heater manual available at [www.rinnai.us](http://www.rinnai.us).