

# Tankless Rack System with SENSEI™ CX Tankless Water Heaters

## Free-Standing Rack (Back-to-Back) Submittal Form



### PROJECT DETAILS

Date: \_\_\_\_\_

Bid Date: \_\_\_\_\_

Project Name: \_\_\_\_\_

City / State / Zip Code: \_\_\_\_\_

Architect / Engineer: \_\_\_\_\_

Wholesaler / Contractor: \_\_\_\_\_

Model #: \_\_\_\_\_

Total System Btu/h: \_\_\_\_\_

Notes:

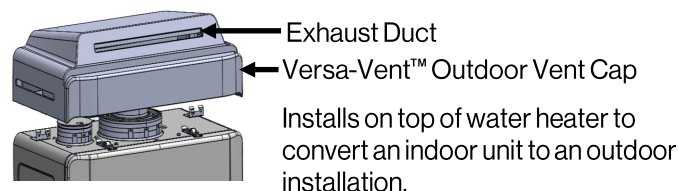
### FEATURES AND BENEFITS

- Gas Type: Natural Gas (converts to Propane with parameter setting adjustment)
- Installation Type: Indoor (converts to outdoor installation with parameter setting adjustment and Versa-Vent™ outdoor vent cap ) (sold separately)
- Ultra-efficient condensing technology
- Thermal Efficiency 97%
- Modulating technology with up to 318:1 turndown
- 15,000 Btu/h to 4.8 Million Btu/h
- 0.26 to 235 GPM (0.98 to 889.5 L/min) hot water flow range
- Ultra Low NOX - Complies with South Coast Air Quality Management
- District 14 ng/J or 20 ppm NOX emission levels
- Sealed combustion
- Venting options:
  - Common Vent System PPTI, 8 units up to 150 ft (46 m)
  - Concentric PPs - 150 ft (46 m) max vent length
  - Dual Pipe PPs - 150 ft (46 m) max vent length
  - PVC/CPVC - 2", 3", 4", 6"
- Primary and Secondary Stainless Steel Heat Exchanger
- Pre-assembled rack with CX199 indoor or outdoor tankless water heaters installed
- Wall-mount or free-standing/floor mount options
- Powder coated black iron gas pipe and copper water manifolds
- Commercial controller available for hot water temperatures between 98°F and 185°F (37°C and 85°C)
- Flexible stainless steel pipe connections from hot and cold manifold/water heater connections
- Individual drain tee/drip leg on gas connection for each water heater
- Marine grade powdered coated aluminum frame
- TRS fits through standard 32" (813 mm) doorway
- Lifting eyebolts on free-standing racks
- Isolation and pressure relief valves included and installed on each water heater

### OPTIONS

#### Versa-Vent™ Outdoor Vent Cap (part # RXOVC)

Outdoor vent cap that converts an indoor tankless water heater (applicable models) to an outdoor installation.

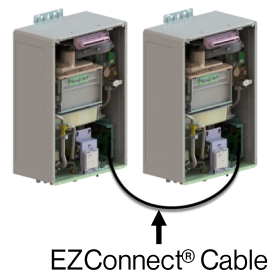


#### Electronic Connection Cable (select cable type below)

- The Rinnai EZConnect® and Cascade Cables electronically connect water heaters. This connection rotates water heater operation order to ensure equal usage among the entire system and enables all water heaters connected to modulate operation and function as one hot water source.
- The cables connect to the PC Board inside each water heater.

#### EZConnect® Cable

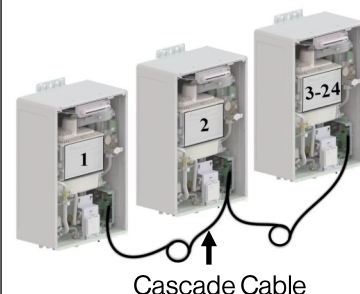
For rack configurations with **2 water heaters** only.



- Available Length: 6 ft (2 m)

#### Cascade Cable

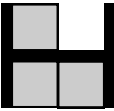
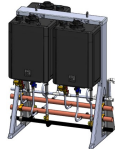
For rack configurations with **2 through 24 water heaters**.



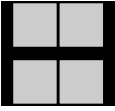

- Available Lengths: 10 ft or 26 ft (3 m or 8 m)
- One cable required for each water heater.

## RACK SELECTION

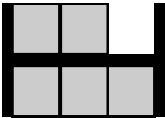

### 3-UNIT RACK CONFIGURATIONS:

Item	Qty	Model Number <sup>1</sup>	Gas Type <sup>2</sup>	Interior/ Exterior <sup>3</sup>	Configuration	Illustration
		TRS03CXiN	Natural Gas or Propane	Interior or Exterior		

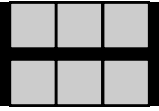
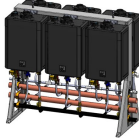
### 4-UNIT RACK CONFIGURATIONS:

Item	Qty	Model Number <sup>1</sup>	Gas Type <sup>2</sup>	Interior/ Exterior <sup>3</sup>	Configuration	Illustration
		TRS04CXiN	Natural Gas or Propane	Interior or Exterior		

### 5-UNIT RACK CONFIGURATIONS:

Item	Qty	Model Number <sup>1</sup>	Gas Type <sup>2</sup>	Interior/ Exterior <sup>3</sup>	Configuration	Illustration
		TRS05CXiN	Natural Gas or Propane	Interior or Exterior		

### 6-UNIT RACK CONFIGURATIONS:

Item	Qty	Model Number <sup>1</sup>	Gas Type <sup>2</sup>	Interior/ Exterior <sup>3</sup>	Configuration	Illustration
		TRS06CXiN	Natural Gas or Propane	Interior or Exterior		

<sup>1</sup> Model Numbers Explained:

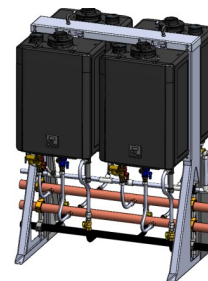
TRS 02 CX i N	
<b>TRS</b>	<b>System Type:</b> TRS ( Tankless Rack System)
<b>04</b>	<b>Number of Water Heaters on Rack:</b> 02, 03, 04, 05, 06
<b>CX or CXP</b>	<b>Water Heater Model:</b> <ul style="list-style-type: none"> <li>• CX (CX199)</li> <li>• CXP (CXP199) (includes built-in recirculation pump)</li> </ul>
<b>i</b>	<b>Installation Type:</b> i (Interior) Converts to an outdoor installation with parameter setting adjustment and the Versa-Vent™ outdoor vent cap (sold separately).
<b>N</b>	<b>Gas Type:</b> N (Natural Gas) Converts to Propane with parameter setting adjustment.

<sup>2</sup> Water heater model (CX199i) factory default is Natural Gas, but converts to Propane with parameter setting adjustment.

<sup>3</sup> Water heater model (CX199i) factory default is Indoor, but converts to an outdoor installation with parameter setting adjustment and the Versa-Vent™ outdoor vent cap (sold separately).

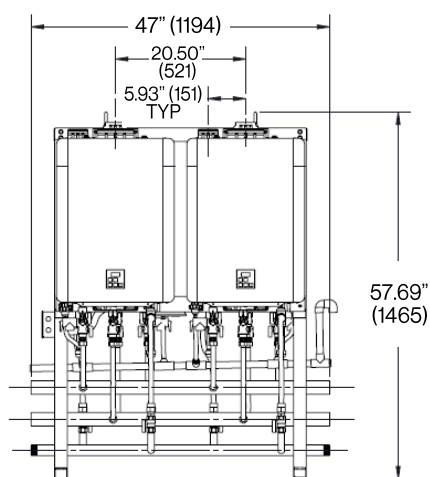
### 4-Unit Free-Standing Frame

Number of Tankless Water Heaters on Rack:  
2, 3, or 4

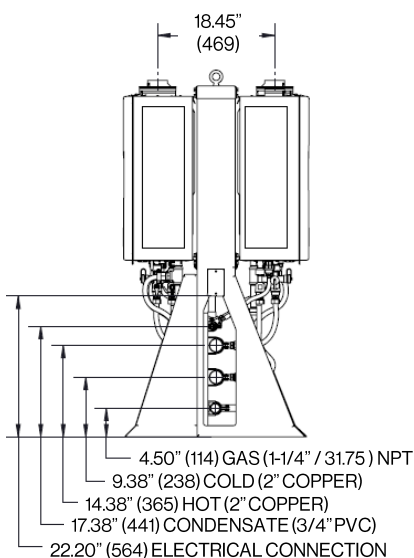


Inches (mm)

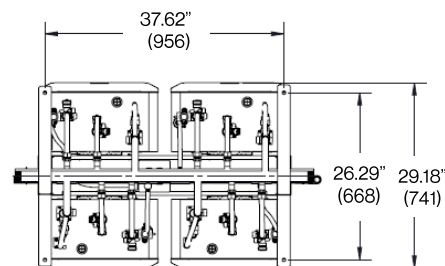
**Front**



**Left Side**



**Bottom**

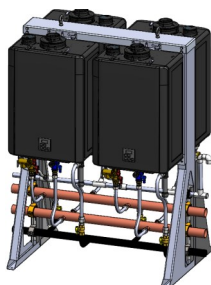


### Configurations:

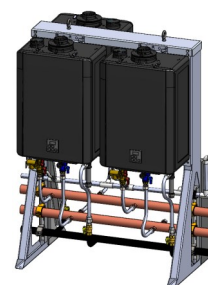
Model	Configuration	Illustration
TRS03CX	 3-Units	
TRS04CX	 4-Units	

Model:	TRS04CX	TRS03CX
Water Heater Model	CX199i (NG/LP)	
TRS Dimensions (HxLxD)	57.69" x 47" x 28.59" / 146.53 cm x 119 cm x 72.61 cm (see "Technical Specifications" section for additional dimensions)	
Crate Dimensions (HxLxD)	66" x 70" x 35" (167.64 cm x 177.8 cm x 89 cm)	
Weight - Fully Assembled	365 lb (165.6 kg)	290 lb (131.5 kg)
Weight - Shipping (total)	562 lb (255 kg)	490 lb (222 kg)
<b>Rack Frame - Specifications</b>		
Frame Rail Type	Sheet Metal	
Frame Material	Aluminum (0.090 5052-H32)	
Frame Finish	Powder Coat	
Color	Gray	
<b>Water &amp; Gas Connections</b>		
Hot Water Trunk Line Diameter	2" (51mm)	
Cold Water Trunk Line Diameter	2" (51mm)	
Hot Water Trunk Line Material	Rigid Copper	
Cold Water Trunk Line Material	Rigid Copper	
Water Trunk Connection Type	2" (51mm) Pipe	
Gas Trunk Line Diameter	1-1/4" (31.75 mm)	
Gas Trunk Connection Type	1-1/4" (31.75 mm) MNPT	
Gas Trunk Line Material	Schedule 40 Steel	
Gas Trunk Branch Line Material	PVC Over CSST	
Condensate Trunk Line Diameter	3/4" (19 mm)	
Condensate Trunk Material	Schedule 40 PVC	
Condensate Trunk Connection Type	3/4" (19 mm) Pipe	
<b>Electric Requirements</b>		
Prewired Electrical Assembly	Yes (Indoor Installations Only)	
Voltage	AC 120 Volts - 60 Hz	
Maximum Current (Amperes)	16	12
<b>BTU and Flow Rates for CX199i (NG/LP)</b>		
Number of Tankless Water Heaters	4	3
Flow Rate @ 70°F (21°C) rise	21.6 GPM (81.76 L/min)	16.2 GPM (61 L/min)
Flow Rate @ 100°F (38°C) rise	15.2 GPM (57.5 L/min)	11.4 GPM (43 L/min)
Minimum Input Rate (Btu/h)	15,200	
Maximum Input Rate (Btu/h)	796,000	597,000

**TRS04CX**



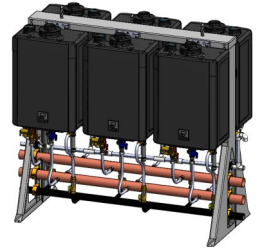
**TRS03CX**



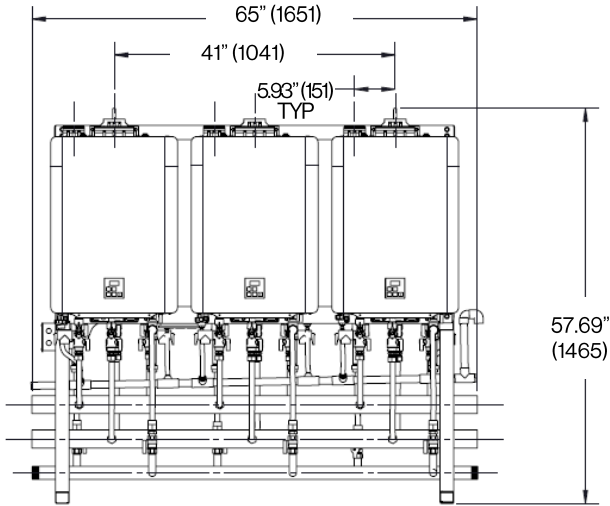
# 6-Unit Free-Standing Frame

Number of Tankless Water Heaters on Rack:  
5 or 6

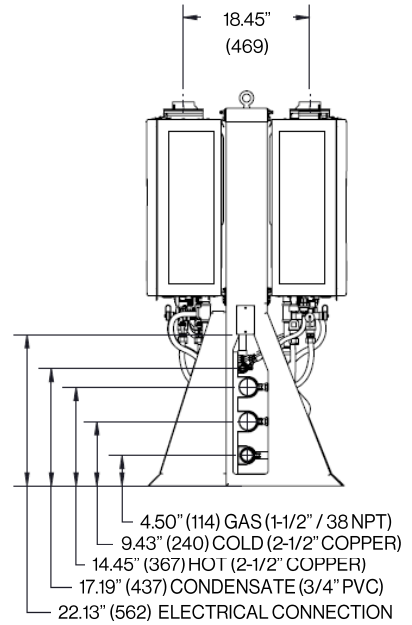
Inches (mm)



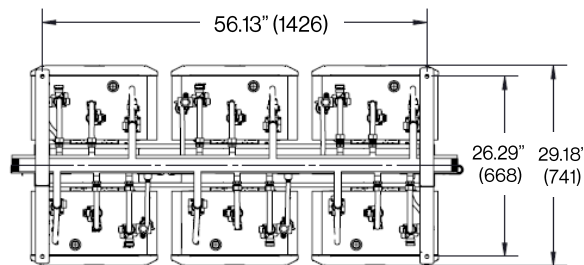
**Front**



**Left Side**



**Bottom**

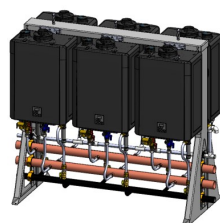


## Configurations:

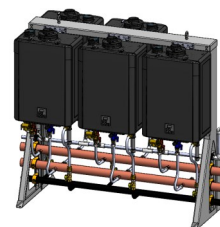
Model	Configuration	Illustration
TRS06CX	<p>6-Units</p>	
TRS05CX	<p>5-Units</p>	

Model:	TRS06CX	TRS05CX
Water Heater Model	CX199i (NG/LP)	
TRS Dimensions (HxLxD)	57.69" x 65" x 28.59" / 146.53 cm x 165 cm x 72.61 cm (see "Technical Specifications" section for additional dimensions)	
Crate Dimensions (HxLxD)	66" x 70" x 35" (167.64 cm x 177.8 cm x 89 cm)	
Weight - Fully Assembled	540 lb (245 kg)	465 lb (211 kg)
Weight - Shipping (total)	740 lb (336 kg)	665 lb (302 kg)
<b>Rack Frame - Specifications</b>		
Frame Rail Type	Sheet Metal	
Frame Material	Aluminum (0.090 5052-H32)	
Frame Finish	Powder Coat	
Color	Gray	
<b>Water &amp; Gas Connections</b>		
Hot Water Trunk Line Diameter	2-1/2" (63.5 mm)	
Cold Water Trunk Line Diameter	2-1/2" (63.5 mm)	
Hot Water Trunk Line Material	Rigid Copper	
Cold Water Trunk Line Material	Rigid Copper	
Water Trunk Connection Type	2-1/2" (63.5 mm) Pipe	
Gas Trunk Line Diameter	1-1/2" (38 mm)	
Gas Trunk Connection Type	1-1/2" (38 mm) MNPT	
Gas Trunk Line Material	Schedule 40 Steel	
Gas Branch Line Material	PVC Over CSST	
Condensate Trunk Line Diameter	3/4" (19 mm)	
Condensate Trunk Line Material	Schedule 40 PVC	
Condensate Trunk Connection Type	3/4" (19 mm) Pipe	
<b>Electric Requirements</b>		
Prewired Electrical Assembly	Yes (Indoor Installations Only)	
Voltage	AC 120 Volts - 60 Hz	
Max Current (Amperes)	24	20
<b>BTU and Flow Rates for CX199i (NG/LP)</b>		
Number of Tankless Water Heaters	6	5
Flow rate @ 70°F (21°C) rise	32.4 GPM (122.6 L/min)	27 GPM (102 L/min)
Flow rate @ 100°F (38°C) rise	22.8 GPM (86 L/min)	19 GPM (72 L/min)
Minimum input rate (Btu/h)	15,200	
Maximum input rate (Btu/h)	1,194,000	995,000

**TRS06CX**



**TRS05CX**



## PROJECT NOTES

## CONTACT INFORMATION

**Rinnai Commercial Water Heating Services**

**800-621-9419**

**[commercialservices@rinnai.us](mailto:commercialservices@rinnai.us)**

