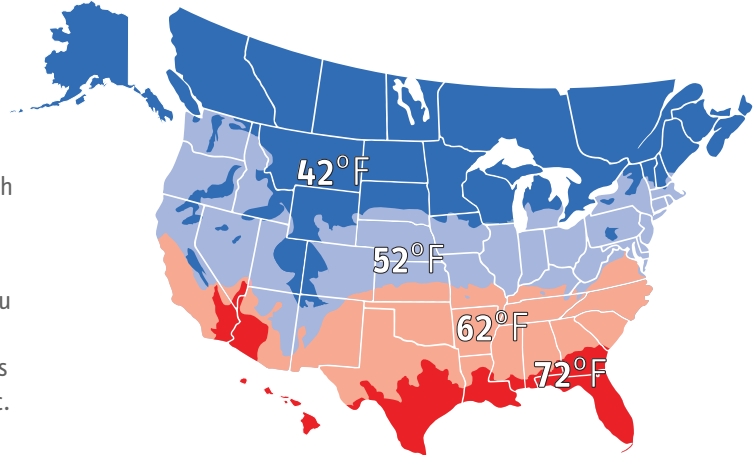


# Tempra® Sizing Guide and Technical Data

## Tempra® Trend & Plus Tankless Electric Water Heater Sizing Guide

- 1 Use the map to find the approximate ground water temperature where you live.
- 2 Check the column on the table with your ground water temperature to see how many fixtures can be supplied at the same time with hot water.
- 3 Use your actual maximum flow rate to fine-tune these recommendations. If you know you have 1.5 GPM low flow showerheads, for instance, then 3 GPM would supply 2 showers at the same time, or 1 shower plus 1 sink, etc.



	42°F	52°F	62°F	72°F
<b>Tempra® 12 Trend &amp; Plus</b> <small>DRAWS 50 A - Requires minimum 100 A electric service</small>				
MAX. FLOW RATE FROM UNIT	1.3 GPM	1.6 GPM	1.9 GPM	2.5 GPM
SIMULTANEOUS FIXTURES				
<b>Tempra® 15 Trend &amp; Plus</b> <small>DRAWS 60 A - Requires minimum 100 A electric service</small>				
MAX. FLOW RATE FROM UNIT	1.6 GPM	1.9 GPM	2.4 GPM	3.1 GPM
SIMULTANEOUS FIXTURES				
<b>Tempra® 20 Trend &amp; Plus</b> <small>DRAWS 80 A - Requires minimum 125 A electric service</small>				
MAX. FLOW RATE FROM UNIT	2.1 GPM	2.5 GPM	3.1 GPM	4 GPM
SIMULTANEOUS FIXTURES				
<b>Tempra® 24 Trend &amp; Plus</b> <small>DRAWS 100 A - Requires minimum 150 A electric service</small>				
MAX. FLOW RATE FROM UNIT	2.6 GPM	3.1 GPM	3.8 GPM	5 GPM
SIMULTANEOUS FIXTURES				
<b>Tempra® 29 Trend &amp; Plus</b> <small>DRAWS 120 A - Requires minimum 200 A electric service</small>				
MAX. FLOW RATE FROM UNIT	3.1 GPM	3.7 GPM	4.6 GPM	6 GPM
SIMULTANEOUS FIXTURES				
<b>Tempra® 36 Trend &amp; Plus</b> <small>DRAWS 150 A - Requires minimum 300 A electric service</small>				
MAX. FLOW RATE FROM UNIT	3.9 GPM	4.6 GPM	5.7 GPM	7.5 GPM
SIMULTANEOUS FIXTURES				

MAX. FLOW RATE CALCULATED FOR 105°F WATER

FIXTURE FLOW RATES (AND TYPICAL RANGES)	<b>SHOWER</b> <b>1.5 GPM</b> <small>(RANGE 1.5-2.5)</small>	<b>KITCHEN SINK</b> <b>1.5 GPM</b> <small>(RANGE 1.0-2.2)</small>	<b>BATHROOM SINK</b> <b>0.5 GPM</b> <small>(RANGE 0.5-1.0)</small>
---	---	---	--

Technical data and temp. rise charts on next page. ↓

### Tempra® Sizing Guide and Technical Data

#### Technical Data



Certified to ANSI/UL Std. 499  
Conforms to CAN/CSA Std. C22.2 No.88



Tested and certified by WQA  
against NSF/ANSI 372 for  
lead free compliance.



Tempra® Model Item Number	12 Trend <sup>1</sup> 239213 12 Plus <sup>2</sup> 239219	15 Trend <sup>1</sup> 239214 15 Plus <sup>2</sup> 239220	20 Trend <sup>1</sup> 239215 20 Plus <sup>2</sup> 239221	24 Trend <sup>3</sup> 239216 24 Plus <sup>3</sup> 239222	29 Trend <sup>4</sup> 239217 29 Plus <sup>4</sup> 239223	36 Trend <sup>5</sup> 239218 36 Plus <sup>5</sup> 239225
Phase	single 50/60 Hz		single <sup>6</sup> 50/60 Hz		single <sup>6</sup> 50/60 Hz	
Voltage	240 V or 208 V		240 V or 208 V		240 V or 208 V	
Wattage	12 kW	9 kW	14.4 kW	10.8 kW	19.2 kW	14.4 kW
Amperage draw	50 A	44 A	2 x 30 A	2 x 26 A	2 x 40 A	2 x 35 A
Number & min. recommended size of circuit breakers <sup>1</sup> (DP)	1 x 50 A		2 x 30 A		2 x 40 A	
Number of runs & min. recommended wire size <sup>2</sup> (copper)	1 x 8/2 AWG		2 x 10/2 AWG		2 x 8/2 AWG	
Maximum temperature increase above ambient water temp	@ 1.50 GPM	54°F	41°F	65°F	49°F	88°F
	@ 2.25 GPM	36°F	27°F	43°F	37°F	58°F
	@ 3.00 GPM	27°F	20°F	33°F	25°F	44°F
	@ 4.50 GPM	-	-	-	-	29°F
Min. water flow to activate unit	0.37 gpm (1.4 l/min)		0.50 gpm (1.9 l/min)		0.50 gpm (1.9 l/min)	
Weight	13.5 lb (6.1 kg)		16.1 lb (7.3 kg)		16.1 lb (7.3 kg)	
Nominal water volume	0.13 gal (0.5 l)		0.26 gal (1.0 l)		0.26 gal (1.0 l)	
Max. inlet water temperature	131°F (55°C)					
Dimensions	Width 16 <sup>5</sup> / <sub>8</sub> " (42.0 cm) x Height 14 <sup>1</sup> / <sub>2</sub> " (36.9 cm) x Depth 4 <sup>5</sup> / <sub>8</sub> " (11.7 cm)					
Working pressure	150 psi (10 bar)					
Tested to pressure	300 psi (20 bar)					
Water connections	¾" NPT					

<sup>1</sup> Overcurrent protection sized at 100% of load. Tankless water heaters are considered a non-continuous load.

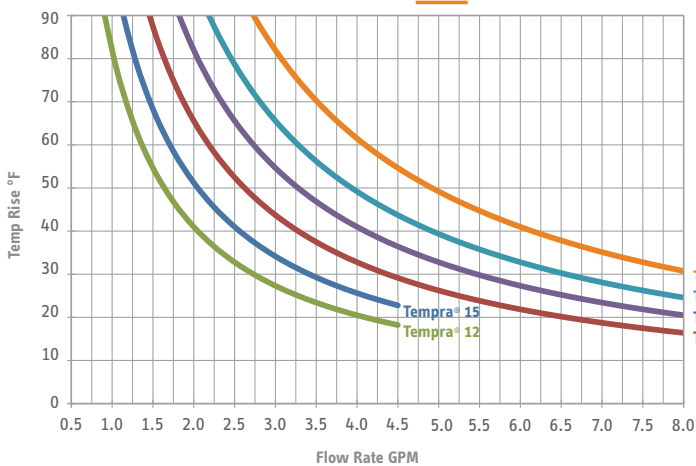
<sup>2</sup> Copper conductors with a temperature rating of 75 °C or greater must be used. Conductors should be sized to maintain a voltage drop of less than 3% under load.

<sup>3</sup> Requires minimum 150 A main service. <sup>4</sup> Requires 200 A main service. <sup>5</sup> Requires 300 A main service.

<sup>6</sup> 29 Trend/Plus & 36 Trend/Plus may be wired for balanced 3-phase 208 V.  
15 Trend/Plus, 20 Trend/Plus, 24 Trend/Plus may be wired for unbalanced 3-phase 208 V.

These are our recommendations. Check local codes for compliance if necessary.

Temperature Rise vs. Flow Rate at **240 V**



Temperature Rise vs. Flow Rate at **208 V**

