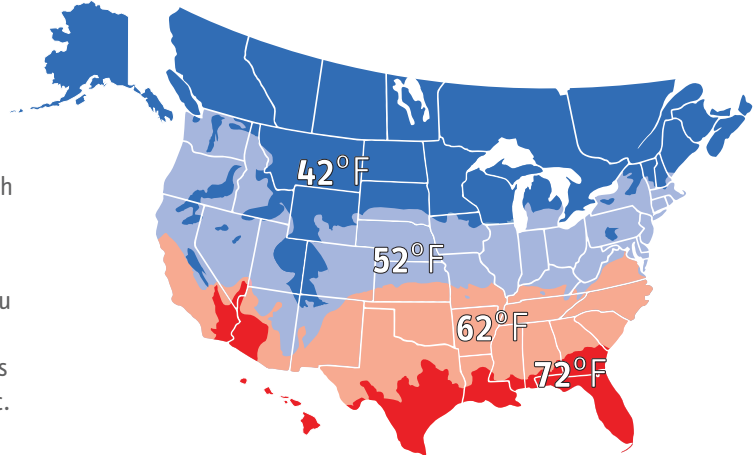


### Tempra® Sizing Guide and Technical Data

#### 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) **SHOWER** 1.5 GPM (RANGE 1.5-2.5) 
**KITCHEN SINK** 1.5 GPM (RANGE 1.0-2.2) 
**BATHROOM SINK** 0.5 GPM (RANGE 0.5-1.0)

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<br>Item Number   | 12 Trend <sup>1</sup> 239213<br>12 Plus <sup>2</sup> 239219  | 15 Trend <sup>1</sup> 239214<br>15 Plus <sup>2</sup> 239220 | 20 Trend <sup>1</sup> 239215<br>20 Plus <sup>2</sup> 239221 | 24 Trend <sup>3</sup> 239216<br>24 Plus <sup>3</sup> 239222 | 29 Trend <sup>4</sup> 239217<br>29 Plus <sup>4</sup> 239223 | 36 Trend <sup>5</sup> 239218<br>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.

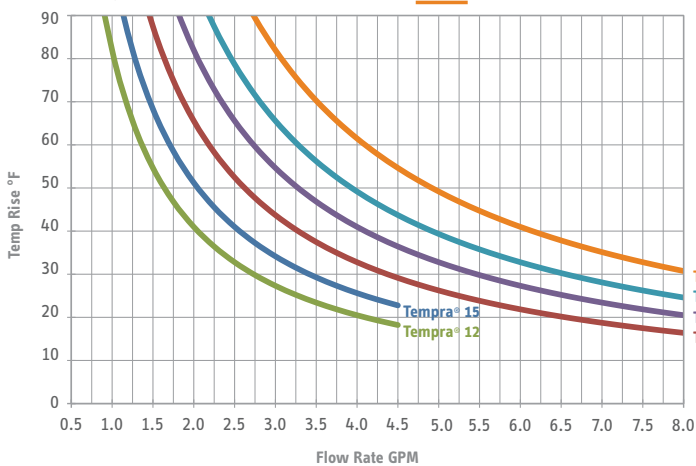
<sup>2</sup> Copper conductors with a temperature rating of 75 °C or greater must be used. Conductors should be sized to maintain a voltage drop of less than 3% under load.

<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**

