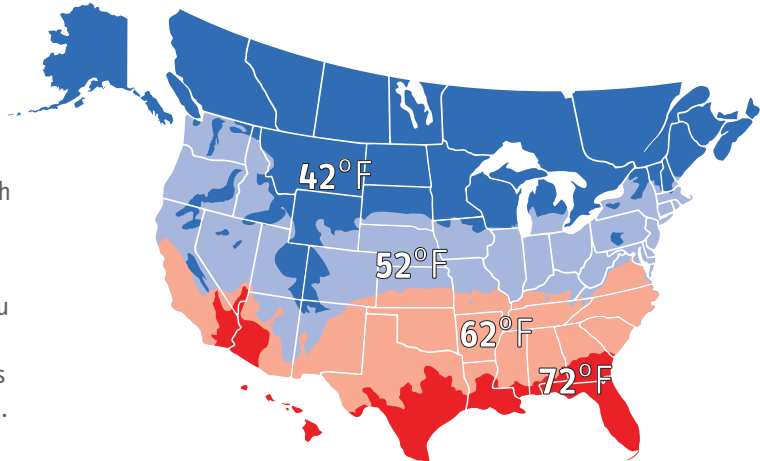


Tempra® Sizing Guide and Technical Data

Tempra® & Tempra® 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
Tempra® 12 & 12 Plus <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				
Tempra® 15 & 15 Plus <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				
Tempra® 20 & 20 Plus <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				
Tempra® 24 & 24 Plus <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				
Tempra® 29 & 29 Plus <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				
Tempra® 36 & 36 Plus <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 <small>(RANGE 1.5-2.5)</small>	KITCHEN SINK 1.5 GPM <small>(RANGE 1.0-2.2)</small>	BATHROOM SINK 0.5 GPM <small>(RANGE 0.5-1.0)</small>
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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 E335-1 & E335-2-35



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



Model Item Number	Tempra® 12 223420 12 Plus 224196	Tempra® 15 223421 15 Plus 224197	Tempra® 20 223422 20 Plus 224198	Tempra® 24 ³ 223424 24 Plus ³ 224199	Tempra® 29 ⁴ 232885 29 Plus ⁴ 223425	Tempra® 36 ⁵ 232886 36 Plus ⁵ 223426							
Phase	single 50/60 Hz		single ⁶ 50/60 Hz		single ⁶ 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 ¹ (DP)	1 x 50 A		2 x 30 A		2 x 40 A								
Number of runs & min. recommended wire size ² (copper)	1 x 6/2 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	66°F	92°F	82°F	92°F	92°F	92°F	
	@ 2.25 GPM	36°F	27°F	43°F	37°F	58°F	44°F	73°F	54°F	87°F	66°F	92°F	82°F
	@ 3.00 GPM	27°F	20°F	33°F	25°F	44°F	33°F	54°F	41°F	66°F	49°F	82°F	61°F
	@ 4.50 GPM	-	-	-	-	29°F	22°F	37°F	27°F	44°F	33°F	55°F	41°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 ⁵ / ₈ " / 42.0 cm x HEIGHT 14 ¹ / ₂ " / 36.9 cm x DEPTH 4 ⁵ / ₈ " / 11.7 cm												
Working pressure	150 PSI / 10 BAR												
Tested to pressure	300 PSI / 20 BAR												
Water connections	¾" NPT												

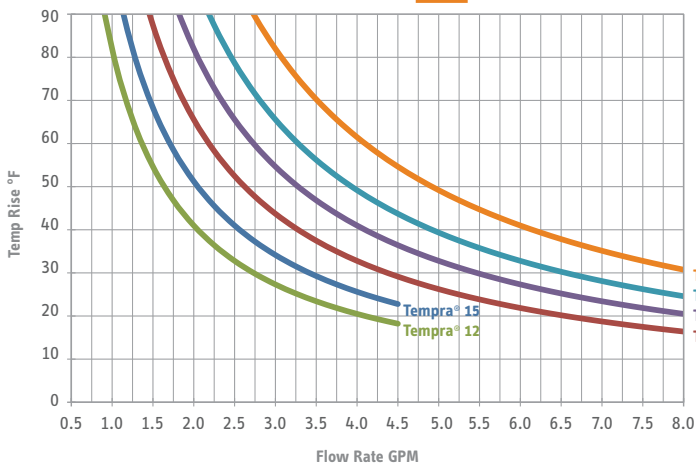
¹ This is our recommendation for overcurrent protection sized at 100% of load. Check local codes for compliance if necessary. Tankless water heaters are considered a non-continuous load.

² Copper must be used. Conductors should be sized to maintain a voltage drop of less than 3% under load.

³ Requires minimum 150 A main service. ⁴ Requires 200 A main service. ⁵ Requires 300 A main service.

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

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



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

