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Stiebel Eltron Tempra 24 Plus

Stiebel Eltron Tempra 24 Plus Whole House Tankless Electric Water Heater Instruction Manual

Model: Tempra 24 Plus

PRODUCT OVERVIEW

The Stiebel Eltron Tempra 24 Plus is an advanced tankless electric water heater designed to provide a continuous supply of hot water. It features Advanced Flow Control, an exclusive technology that ensures a constant temperature output by automatically adjusting water flow, even during high demand. This unit is engineered for reliability and energy efficiency, contributing to savings on the hot water portion of your electric bill.

Key Features:

- Digital temperature control for precise settings.
- Advanced Flow Control for consistent hot water temperature.
- Proven reliability and durable construction.
- Compact, sleek design that requires no venting.
- Potential for 15-20% savings on hot water electricity costs.

INSTALLATION AND SETUP

Proper installation is crucial for the safe and efficient operation of your Stiebel Eltron Tempra 24 Plus water heater. It is recommended that installation be performed by a qualified electrician and plumber in accordance with local and national codes.

Electrical Requirements:

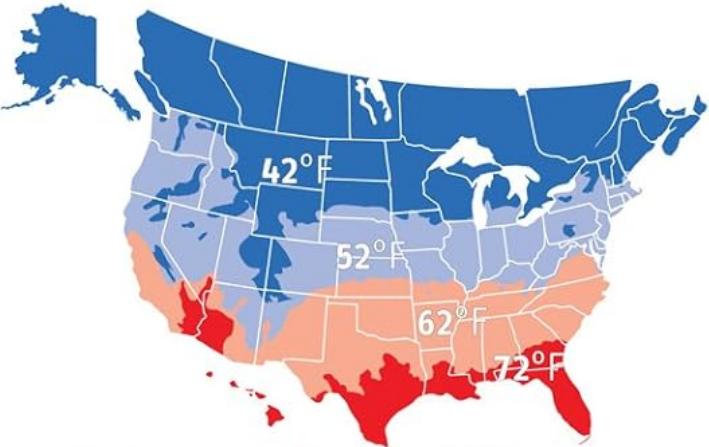
- **Voltage:** 240 Volt or 208 Volt
- **Wattage:** 24 kW (240V) or 18 kW (208V)
- **Breaker Requirement:** Two dedicated 60 Amp double-pole breakers for 240V, or two dedicated 50 Amp double-pole breakers for 208V.
- **Copper Wire Requirement:** 2 x 6 AWG copper wire for both 240V and 208V installations.

Mounting:

The unit is designed for wall mounting. Due to its tankless nature, no venting is required, offering flexibility in placement.

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

DRAWS 50 A - Requires minimum 100 A electric service

MAX. FLOW RATE FROM UNIT	1.3 GPM	1.6 GPM	1.9 GPM	2.5 GPM
SIMULTANEOUS FIXTURES				

Tempra® 15 & 15 Plus

DRAWS 60 A - Requires minimum 100 A electric service

MAX. FLOW RATE FROM UNIT	1.6 GPM	1.9 GPM	2.4 GPM	3.1 GPM
SIMULTANEOUS FIXTURES				

Tempra® 20 & 20 Plus

DRAWS 80 A - Requires minimum 125 A electric service

MAX. FLOW RATE FROM UNIT	2.1 GPM	2.5 GPM	3.1 GPM	4 GPM
SIMULTANEOUS FIXTURES				

Tempra® 24 & 24 Plus

DRAWS 100 A - Requires minimum 150 A electric service

MAX. FLOW RATE FROM UNIT	2.6 GPM	3.1 GPM	3.8 GPM	5 GPM
SIMULTANEOUS FIXTURES				

Tempra® 29 & 29 Plus

DRAWS 120 A - Requires minimum 200 A electric service

MAX. FLOW RATE FROM UNIT	3.1 GPM	3.7 GPM	4.6 GPM	6 GPM
SIMULTANEOUS FIXTURES				

Tempra® 36 & 36 Plus

DRAWS 150 A - Requires minimum 300 A electric service

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)

Model	Voltage	Power	Breaker required	Copper wire required
Tempra® 24 & 24 Plus	240 V 208 V	24 kW 18 kW	2 x 50 A DP 2 x 50 A DP	2 x 6 AWG 2 x 6 AWG

UNIT REQUIRES

APARATO
REQUERIDO

Minimum 150 A electrical service
2 separate dedicated 50 A breakers
2 separate runs of 6 AWG copper wire
Mínimo 150 A servicio eléctrico
2 disyuntores separados de 50 A
2 cables de cobre separados de 6 AWG

If you have questions about the operation or installation of this product, please call.
Si usted tiene preguntas sobre la operación o instalación de este producto, por favor llámenos para obtener ayuda.

Stiebel Eltron
800.582.8423

Figure 1: Internal Components. This image shows the internal layout of the Tempra Plus unit, highlighting key components

such as the solid copper heating system, flow sensor, wiring block, and the Advanced Flow Control mechanism. The safety thermal cut-off and temperature sensors are also visible.

Tempra is
about the
size of a
briefcase
and it
needs no
venting.



Figure 2: Compact Design. The image illustrates the compact size of the Tempra Plus unit, comparable to a briefcase, emphasizing its space-saving design and the absence of venting requirements.

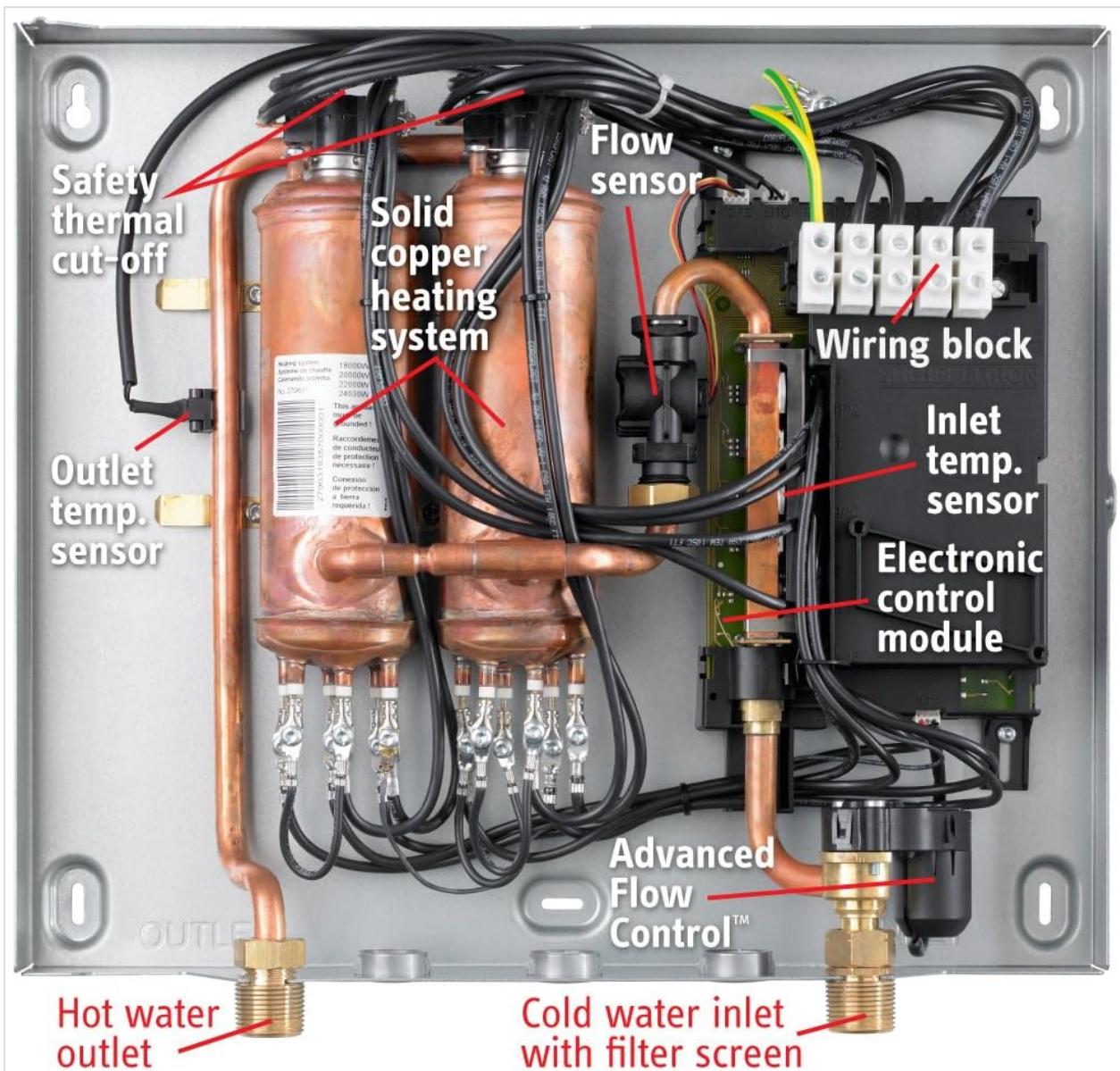


Figure 3: Detailed Sizing and Flow Rate Guide. This comprehensive guide includes a map of approximate ground water temperatures, maximum flow rates per unit, and simultaneous fixture usage. It also details breaker and copper wire requirements for Tempra 24 & 24 Plus models.

OPERATION

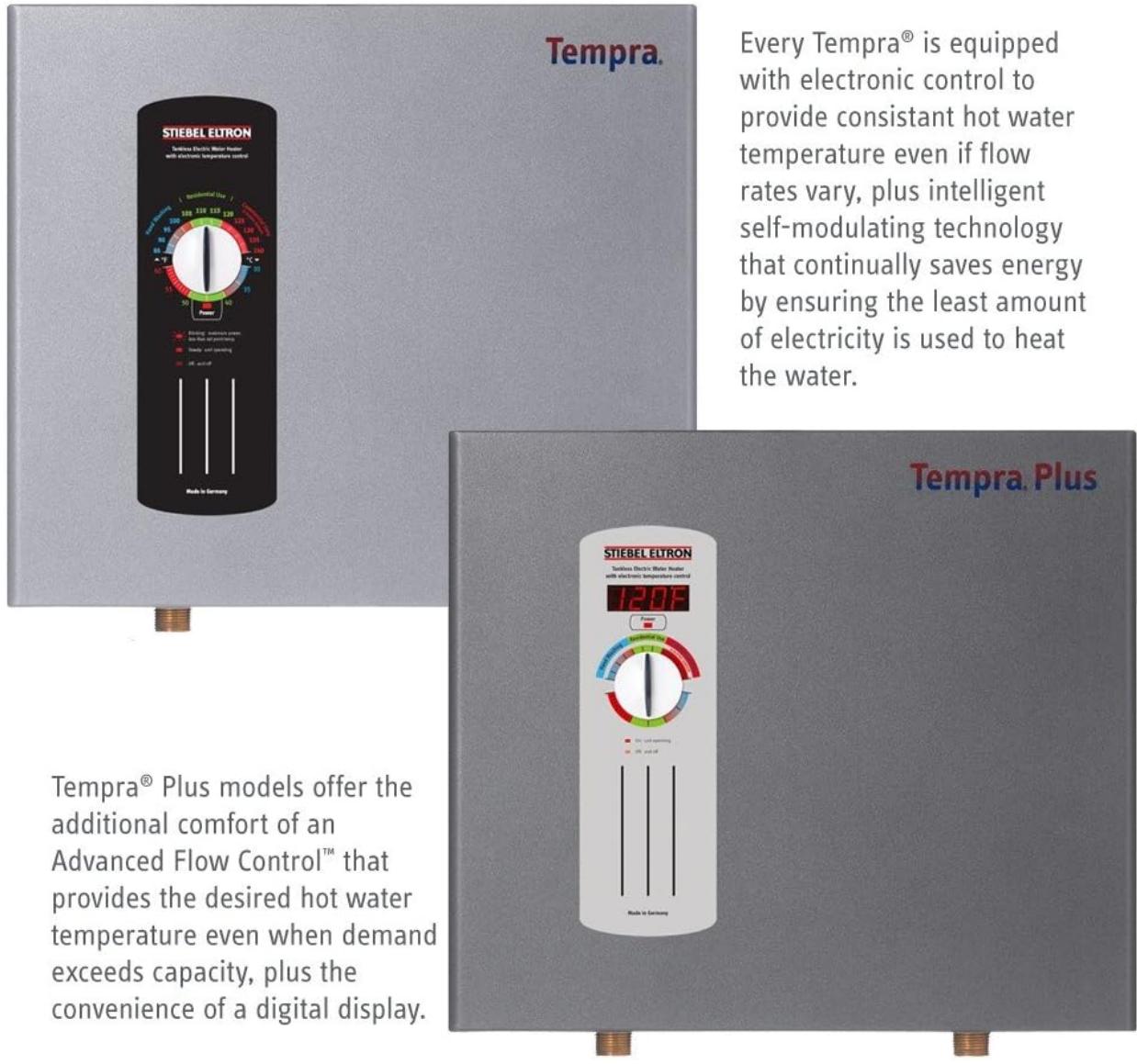
Digital Temperature Control:

The Tempra 24 Plus features a digital display and controls for setting your desired hot water temperature. The unit will then maintain this temperature consistently.

Advanced Flow Control:

This exclusive technology actively monitors water demand. If the demand for hot water exceeds the unit's heating capacity, the Advanced Flow Control will automatically and slightly reduce the water flow rate to ensure the hot water temperature remains at your set point, preventing sudden cold water surges.

Tempra® vs Tempra® Plus Exclusive Features



Tempra® Plus models offer the additional comfort of an Advanced Flow Control™ that provides the desired hot water temperature even when demand exceeds capacity, plus the convenience of a digital display.

Every Tempra® is equipped with electronic control to provide consistent hot water temperature even if flow rates vary, plus intelligent self-modulating technology that continually saves energy by ensuring the least amount of electricity is used to heat the water.

Figure 4: Tempra vs. Tempra Plus Features. This image highlights the differences between the standard Tempra and Tempra Plus models, specifically noting the digital display and Advanced Flow Control exclusive to the Plus model.

Your browser does not support the video tag.

Video 1: Advanced Flow Control Demonstration. This video demonstrates how the Stiebel Eltron Tempra Plus with Advanced Flow Control maintains a consistent hot water temperature, preventing cold water surprises even when multiple fixtures are in use.

MAINTENANCE

To ensure optimal performance and longevity of your water heater, regular maintenance is recommended.

- **Filter Screen Cleaning:** The cold water inlet of the unit contains a small filter screen that should be cleaned annually to prevent sediment buildup and maintain proper water flow.
- **Professional Inspection:** Consider an annual inspection by a qualified professional to check for any potential issues and ensure the unit is operating efficiently.

TROUBLESHOOTING

If you experience issues with your Tempra 24 Plus water heater, please refer to the following general

guidelines:

- **No Hot Water:** Check the electrical breakers to ensure they have not tripped. Verify the unit's digital display is active.
- **Inconsistent Temperature:** Ensure the Advanced Flow Control is functioning correctly. If multiple fixtures are running, the unit may slightly reduce flow to maintain temperature.
- **Reduced Water Flow:** Check the cold water inlet filter screen for clogs and clean if necessary.

For persistent issues or complex problems, it is advisable to contact a qualified technician or Stiebel Eltron customer support.

SPECIFICATIONS

Feature	Detail
Brand	Stiebel Eltron
Model	Tempra 24 Plus
Voltage	208 Volts / 240 Volts
Wattage	18000 watts (208V) / 24000 watts (240V)
Efficiency	Energy-efficient
Mounting Type	Wall
Item Weight	16.1 pounds
Product Dimensions	21.7 x 20.1 x 9.6 inches
Color	White
Part Number	Tempra 24 Plus
UPC	094922100672, 784497732131, 987652362826

Tempra® Plus

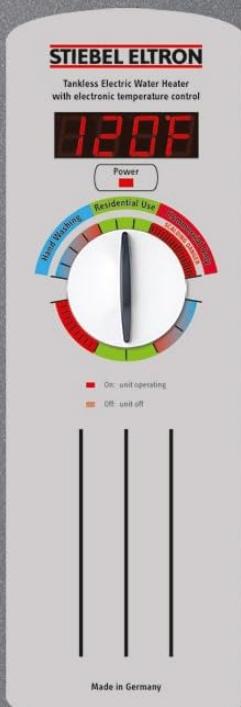


Figure 5: Tempra 24 Plus Front View. This image displays the front of the Stiebel Eltron Tempra Plus unit, showing its sleek design, digital temperature display, and power consumption indicator.

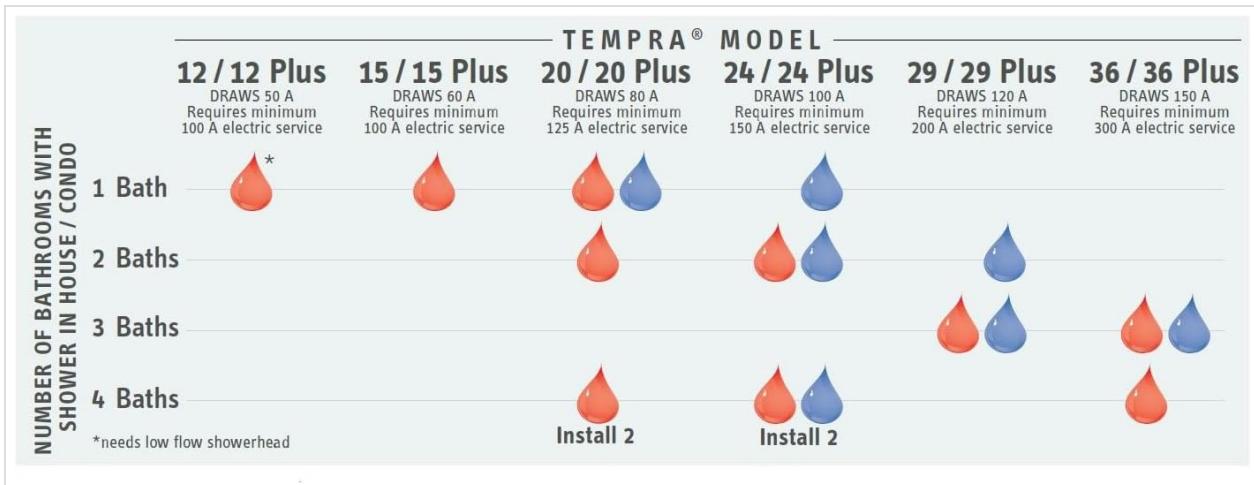


Figure 6: Tempra Model Sizing Guide. This diagram provides a guide for selecting the appropriate Tempra model based on the number of bathrooms and required electrical service. It shows the amperage draw and minimum electric service for models from 12/12 Plus to 36/36 Plus.

WARRANTY INFORMATION

The Stiebel Eltron Tempra 24 Plus water heater comes with a warranty of **7 years for leakage** and **3 years**

for parts.

Please retain your proof of purchase for warranty claims. For full terms and conditions, refer to the official warranty document included with your product or visit the Stiebel Eltron website.

SUPPORT AND CONTACT

For further assistance, technical support, or inquiries regarding your Stiebel Eltron Tempra 24 Plus water heater, please contact:

Stiebel Eltron Customer Service: 800.582.8423

You can also visit the official Stiebel Eltron website for additional resources and support.

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