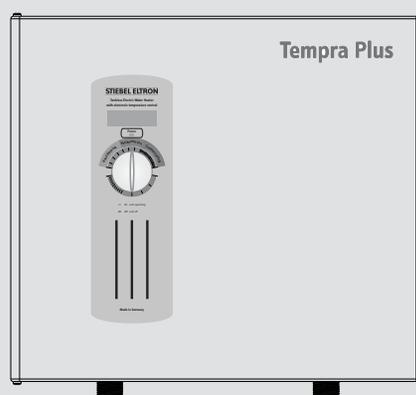


# OPERATION AND INSTALLATION OPERACIÓN E INSTALACIÓN UTILISATION ET INSTALLATION

TANKLESS ELECTRIC WATER HEATERS | CALENTADORES DE AGUA SIN TANQUE | CHAUFFE-EAU INSTANTANÉS ÉLECTRIQUES

- » TEMPRA® 12 B
- » TEMPRA® 15 B
- » TEMPRA® 20 B
- » TEMPRA® 24 B
- » TEMPRA® 29 B
- » TEMPRA® 36 B
- » TEMPRA® 12 PLUS
- » TEMPRA® 15 PLUS
- » TEMPRA® 20 PLUS
- » TEMPRA® 24 PLUS
- » TEMPRA® 29 PLUS
- » TEMPRA® 36 PLUS



Conforms to ANSI/UL Std. 499  
Certified to CAN/CSA Std. E335-1 & E335-2-35  
Conforme a ANSI/UL Std. 499  
Certificación con CAN/CSA Std. E335-1 & E335-2-35  
Conforme à la norme ANSI/UL Std. 499  
Certifié à la norme CAN/CSA Std. E335-1 & E335-2-35



Tested and certified by WQA to NSF/ANSI 372 for lead free compliance.  
Probado y certificado por WQA NSF/ANSI 372 para el cumplimiento de las regulaciones sin plomo.  
Testé et certifié par WQA à la NSF/ANSI 372 pour une utilisation sans plomb.

**STIEBEL ELTRON**

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# OPERATION

## 1. General Information

Read this entire manual. Failure to follow all the guides, instructions and rules could cause personal injury or property damage. Improper installation, adjustment, alteration, service and use of this unit can result in serious injury.

This unit must be installed by a licensed electrician and plumber. The installation must comply with all national, state and local plumbing and electric codes. Proper installation is the responsibility of the installer. Failure to comply with the installation and operating instructions or improper use voids the warranty.

Save these instructions for future reference. Installer should leave these instructions with the consumer.

If you have any questions regarding the installation, use or operation of this water heater, or if you need any additional installation manuals, please call our technical service line at 800-582-8423 (USA and Canada only). If you are calling from outside the USA or Canada, please call USA 413-247-3380 and we will refer you to a qualified Stiebel Eltron service representative in your area.



**This is the safety alert symbol. It is used to alert you to potential personal injury hazard. Obey all safety messages that follow this symbol to avoid possible injury or death.**

## 2. Safety

Observe the following safety information and regulations.

Operate the appliance only when fully installed and with all safety equipment fitted.

### 2.1 Intended use

The appliance is intended for heating domestic hot water and can supply several draw-off points.

Any other use beyond that described shall be deemed inappropriate.

Observation of these instructions is also part of the correct use of this appliance.

### 2.2 General Information

Read this entire manual. Failure to follow all the guides, instructions and rules could cause personal injury or property damage. Improper installation, adjustment, alteration, service and use of this appliance can result in serious injury.

This appliance must be installed by a licensed electrician and plumber. The installation must comply with all national, state and local plumbing and electric codes. Proper installation is the responsibility of the installer. Failure to comply with the installation and operating instructions or improper use voids the warranty.

Save these instructions for future reference. Installer should leave these instructions with the consumer.

## OPERATION

# REGISTER YOUR PRODUCT

If you have any questions regarding the installation, use or operation of this water heater, or if you need any additional installation manuals, please call our technical service line at (800)-582-8423.

### 2.3 Safety Precautions



**DANGER: Injury**  
Please read and follow these instructions. Failure to follow these instructions could result in serious personal injury or death.



**Damage to the appliance and the environment**  
The appliance must be installed by a licensed electrician and plumber. The installation must comply with all national, state and local plumbing and electric codes. Service of the appliance must be performed by qualified service TECHNICIANS.



**DANGER: Electrocution**  
Before proceeding with any installation, adjustment. Alteration, or service of this appliance all circuit breakers and disconnect switches servicing the appliance must be turned off. Failure to do so could result in serious personal injury or death.



**DANGER: Electrocution**  
Never remove the appliance's cover unless the electricity servicing the appliance is turned off. Failure to do so could result in personal injury or death.



**DANGER: Electrocution**  
The appliance must be properly grounded. Failure to electrically ground the product could result in serious personal injury or death.



**DANGER: Burns**  
Water temperatures over 125 °F (52 °C) can cause severe burns instantly or death from scalding. A hot water scalding potential exists if the thermostat on the appliance is set too high. Households with small children, disabled or elderly persons may require that the thermostat be set at 113 °F (45 °C) or lower to prevent possible injury from hot water.



**WARNING: Injury**  
where children or persons with limited physical, sensory or mental capabilities are to be allowed to control this appliance, ensure that this will only happen under supervision or after appropriate instructions by a person responsible for their safety. Children should be supervised to ensure that they never play with the appliance.

### 2.4 Test symbols

See the type label on the appliance.

## 3. Register your product



You must register this product within 90 days of purchase on our web site in order to activate the standard warranty or to be eligible for the extended warranty. Go to our web site at [www.stiebel-eltron-usa.com](http://www.stiebel-eltron-usa.com) and click on register your product.

Before beginning the registration process, we suggest that you gather the necessary information which will be as follows:

Type, Example: Tempra 24 Plus (from the label that is on the unit)

Number listed after "Nr."

Place of Purchase

Purchase Date

First & Last Name

Email address

Physical Address

Phone Number

Installation Date

IF YOU HAVE ANY QUESTIONS CONCERNING THE REGISTRATION PROCESS OR WARRANTY OPTIONS, PLEASE CONTACT STIEBEL ELTRON USA DIRECTLY AT (800)-582-8423.

## 4. General



**DANGER: Burns**  
Water temperatures over 125 °F (52 °C) can cause severe burns instantly or death from scalding. A hot water scalding potential exists if the thermostat on the appliance is set too high. Households with small children, disabled or elderly persons may require that the thermostat be set at 113 °F (45 °C) or lower to prevent possible injury from hot water.

The Tempra B and Tempra Plus units are designed to supply hot water for a house, apartment or certain commercial applications. Unlike a conventional storage type water heater the Tempra tankless water heater does not store hot water. Instead, water is heated instantaneously as it flows through the unit. The Tempra offers greater energy efficiency than storage type water heaters due to the absence of stand-by losses and reduced hot water pipe runs.

The input of heat into the water is controlled electronically. The Tempra will deliver any water temperature between 86 °F (30 °C) and 140 °F (60 °C). Please set the desired temperature using the knob on the front cover. The Tempra Plus Temperature adjustment knob can be set to: OFF, 86...140 °F (30...60 °C).

The Tempra B has a °F and a °C scale. The output temperature of the Tempra Plus is shown in the digital display in °F or °C units. (°F or °C units can be selected during installation, factory setting: °F). The maximum temperature is electronically limited to 140 °F (60 °C).

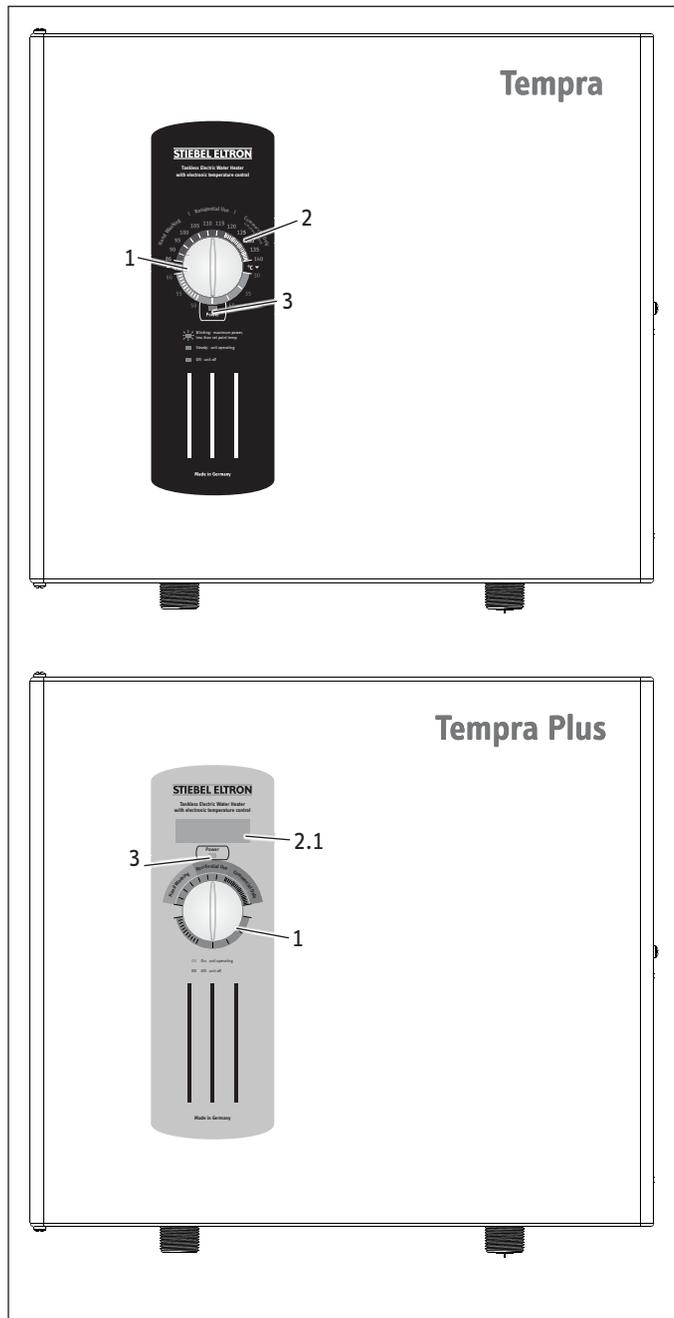
# OPERATION

## GENERAL

For reasons of appliance efficiency and durability (scaling), the optimum temperature setting lies between 86 °F (30 °C) and 120 °F (50 °C).

The outlet temperature of the **Tempra Plus** can be limited (see "Initial settings").

### 4.1 General appearance



- 1 Temperature adjustment knob
- 2 Temperature scale
- 2.1 Temperature display
- 3 "Power" light

### 4.2 Tempra B units:

In case the "Power" LED is flashing while the unit operates, the water flow rate exceeds the heating capacity of the unit. Reduce the hot water flow rate in order to let the unit achieve the set point temperature.



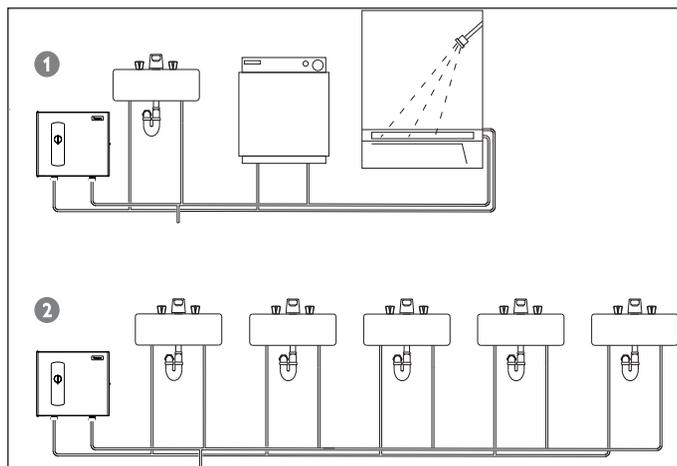
In case you have questions regarding the way you plan to use the Tempra unit, please call our technical service line at 800-582-8423 (USA and Canada). For service outside the U.S. and Canada, please call us at 413-247-3380. You can also e-mail us at [info@stiebel-eltron-usa.com](mailto:info@stiebel-eltron-usa.com) or fax us at 413-247-3369.

# INSTALLATION

## 5. Installation configuration

The Tempra can be used for the following applications.

- 1 Typical residential installation
- 2 Typical commercial installation



## 6. Mounting the unit



**NOTICE:** Unit must be installed in a vertical position with the water fittings pointing downward.

**WARNING:** Do not install unit where it would routinely be splashed with water. Electric shock may result.

**CAUTION:** Hot water outlet pipes leaving unit can be hot to the touch. Insulation must be used for hot water pipes below 36" due to burn risk to children.



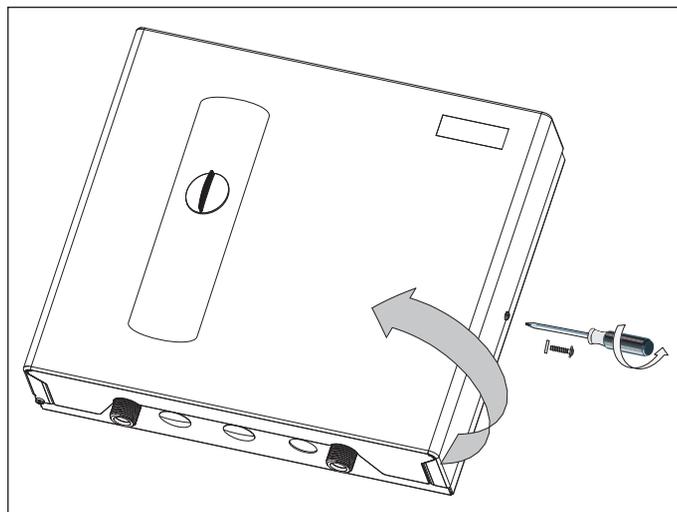
**NOTICE:** This unit should not be installed in a location where it may be exposed to freezing temperatures (less than 36 °F). If the unit may be subject to freezing temperatures all water must be drained from the unit. Failure to comply with this instruction voids all warranties.

The unit should be located in an area where water leakage from the unit or connections will not result in damage to the area adjacent to the unit. If such a location cannot be avoided it is recommended that a drain pan be installed under the unit.

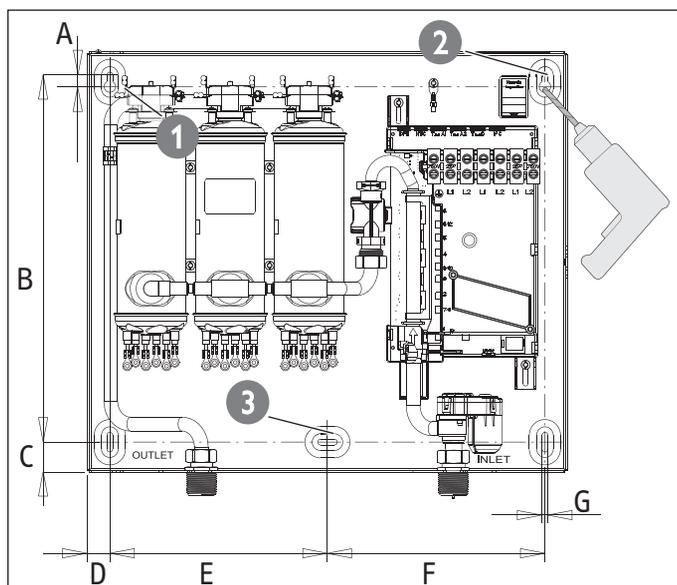
**CAUTION:** Hot water outlet pipes leaving unit can be hot to the touch. Insulation must be used for hot water pipes below 36" due to burn risk to children.

Install Tempra as close as possible to the main hot water draw-off points.

1. Install Tempra in a frost free area. If frost might occur, remove unit before freezing temperatures set in.
2. Leave a minimum of 5" of clearance on all sides for servicing.
3. Remove the cover screw with a #2 Pozidrive screwdriver and open the cover.



4. Mount unit securely to wall by putting at least three screws through mounting holes 1 2 3. Screws and plastic wall anchors for mounting on masonry or wood are provided.



### Dimensions

A	$\frac{3}{8}$ " / 10 mm
B	$12\frac{1}{2}$ " / 318 mm
C	1" / 26 mm
D	$\frac{3}{4}$ " / 19.5 mm
E	$7\frac{1}{2}$ " / 190 mm
F	$7\frac{1}{2}$ " / 190 mm
G	$\frac{3}{16}$ " / 5 mm

# INSTALLATION

## WATER CONNECTIONS

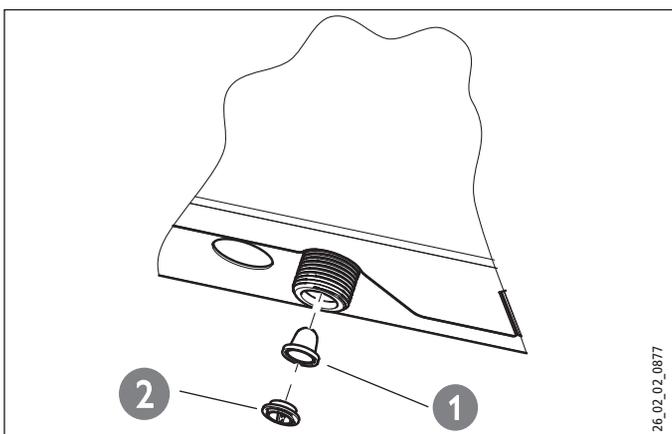
### 7. Water connections

**NOTICE:** Excessive heat from soldering on copper pipes near the tempra may cause damage.

The cold water connection to the unit must be disconnected periodically in order to clean the filter screen. It is required to use water connections that are easily detachable such as braided steel flex connectors.

**NOTICE:** Hard water or water with a high mineral count may damage the unit. Damage to the unit caused by scale or a high mineral count is not covered under the warranty.

- All plumbing work must comply with national and applicable state and local plumbing codes.
- A pressure reducing valve must be installed if the cold water supply pressure exceeds 150 PSI (10 bar).
- Make certain that the cold water supply line has been flushed to remove any scale and dirt.
- The Tempra unit has a built in filter screen ① that should be cleaned from time to time. Clean screen and put the screen and the washer ② back into their original position.



- The cold water connection (inlet) is on the right side of the unit, and the hot water connection (outlet) is on the left side of the unit.

**NOTICE:** Tankless water heaters such as the TEMpra are not required to be equipped with a pressure and temperature relief valve (P&T). If the local inspector will not pass the installation without a P&T, it should be installed on the hot water outlet side of the unit.

- The Tempra on the hot side is designed for connection to copper tubing, PEX tubing or a braided stainless steel hose with a 3/4" NPT female tapered thread. The plumbing on the cold water inlet side needs to be such that it can easily be removed to allow access to the inlet filter screen. The easiest way to achieve this is to use a stainless steel braided hose connector. If soldering near the unit is necessary, please direct the flame away from the housing of the unit in order to avoid damage.
- When all plumbing work is completed, check for leaks and take corrective action before proceeding.

### 8. Electrical connection

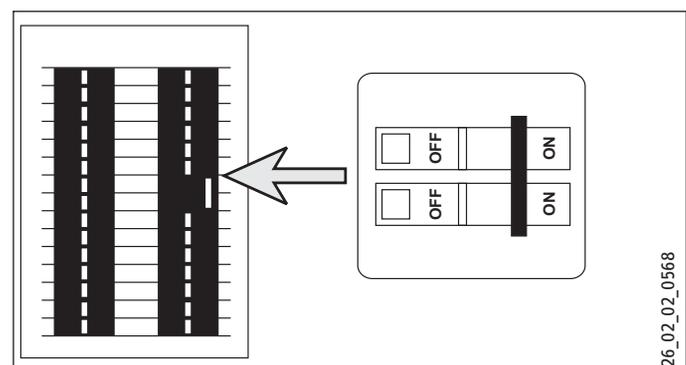
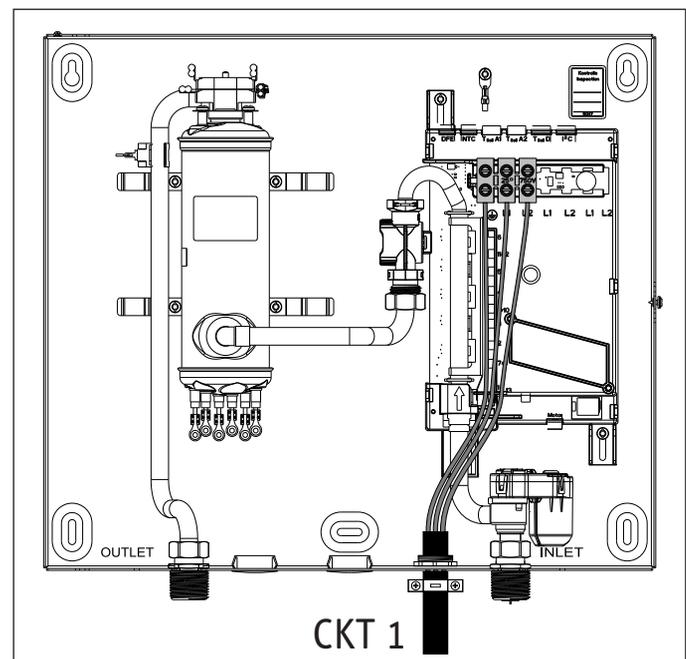
**WARNING:** Before beginning any work on the electric installation, be sure that main breaker panel switches are "off" to avoid any danger of electric shock. All mounting and plumbing must be completed before proceeding with electrical hook-up. Where required by local, state or national electrical codes the circuits should be equipped with a "ground fault interrupter".

The unit must be properly grounded in accordance with state and local codes, or in absence of such codes, in accordance with national electric code or the Canadian electric code. Failure to electrically ground the product could result in serious personal injury or death.

The Tempra should be connected to properly grounded dedicated branch circuits of proper voltage rating. Ground must be brought to the "Ground" at the circuit breaker panel.

#### 8.1 Circuit Layout

##### 8.1.1 Tempra 12 B / Tempra 12 Plus

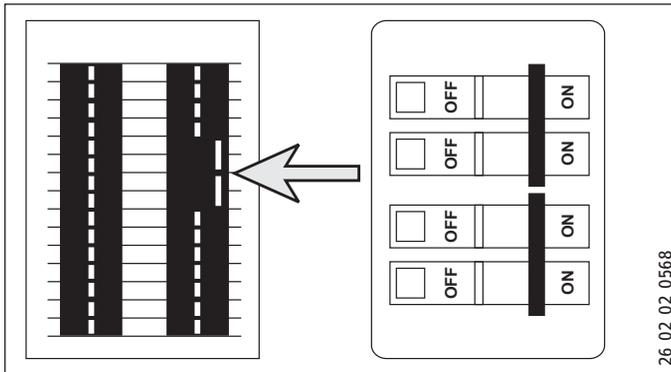
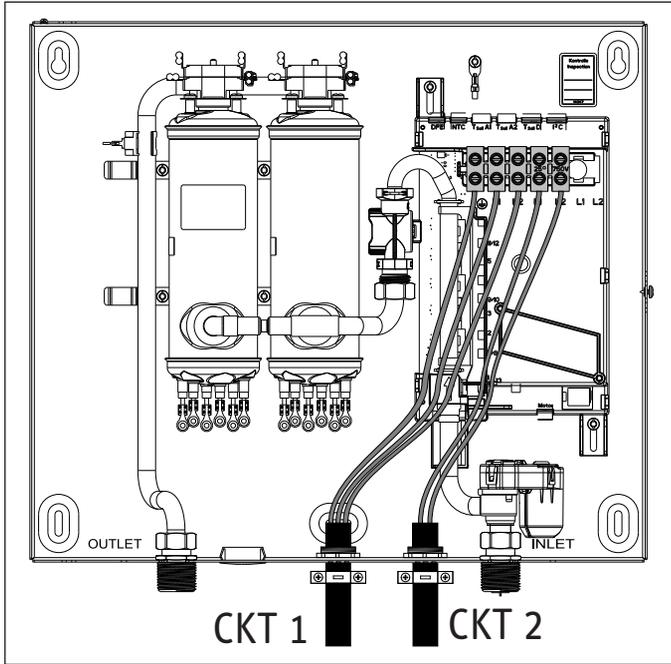


**Tempra 12 B/Plus:** These units can be connected to a single circuit. Use a supply cable protected by a double pole breaker.

# INSTALLATION

## ELECTRICAL CONNECTION

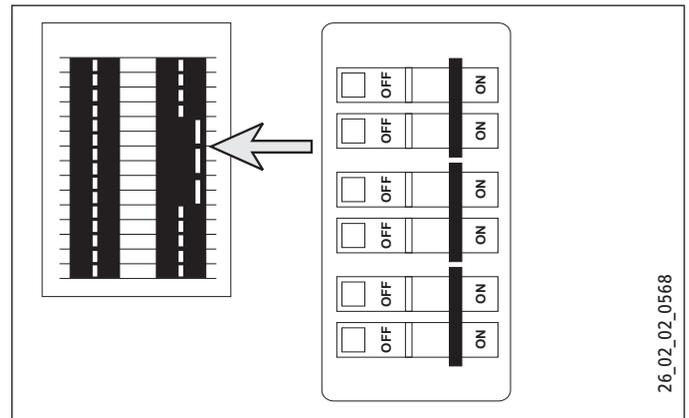
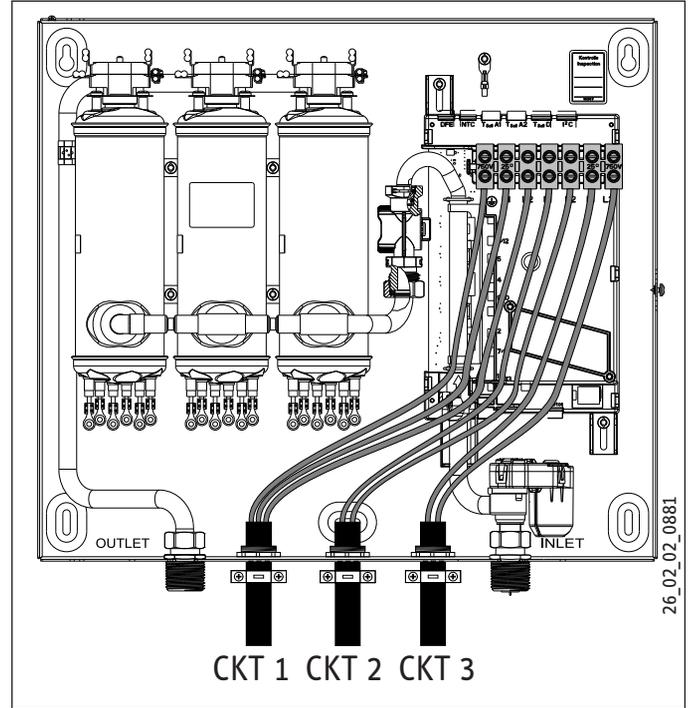
### 8.1.2 Tempra 15, 20, 24 B / Tempra 15, 20, 24 Plus



**Tempra 15, 20 or 24 B/Plus:** These units require two independent circuits. Use two supply cables protected by two separate double pole breakers.

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### 8.1.3 Tempra 29, 36 B / Tempra 29, 36 Plus



**Tempra 29 or 36 B/Plus** These units require three independent circuits. Use three supply cables protected by three separate double pole breakers.

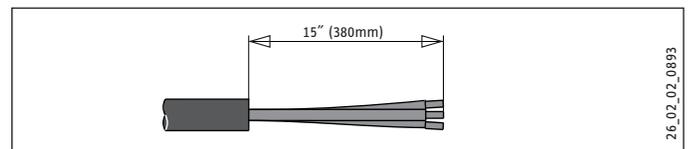
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## 8.2 Circuit Connection

Please refer to the technical data table for the correct wire and circuit breaker size. In all cases, make sure that the unit is properly grounded.

1. Cut the electrical connection cable to length and strip.



The wire must be fed through the knock-outs located between the hot and cold water connections (See 8.1, "Circuit Layout", pg. 6). The "live" wires must be connected to the slots on the terminal block marked L1 and L2. The ground wire must be connected to slot marked with the ground symbol (See 13.5, "Wiring Diagrams", pg. 13).

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# INSTALLATION

## INITIAL SETTINGS

### 8.3 Terminal block

We recommend using stranded wire to connect to the terminal block. Crimp a ferrule over stranded bare wire to ensure a good connection.

Consult the chart below for the recommended torque amounts on the terminal block screws.

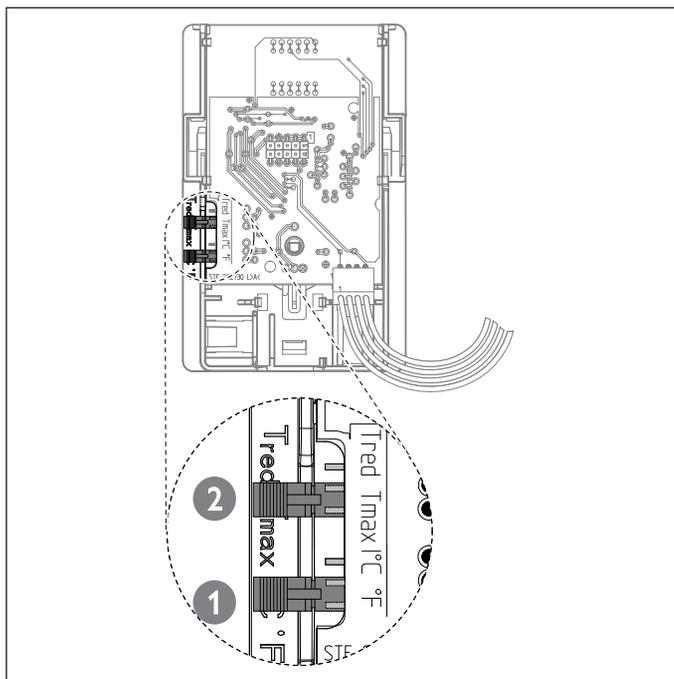
Screw Diameter (mm)	Torque (N•cm)	Torque (Lbf•in)
2.8	30-40	2.65-3.54
2.8-3	35-50	3.09-4.42
3-3.2	50-60	4.42-5.31
3.2-3.6	60-80	5.31-7.08
3.6-4.1	90-120	7.96-10.62
4.1-4.7	120-180	10.62-15.93
4.7-5.3	150-200	13.27-17.7

Using the proper torque specifications to secure wire to the wiring block helps to avoid personal loss or property damage.

See 13, "Technical Data", pg. 9 for information on the proper wire gauge size.

## 9. Initial settings

Check whether the set value transducer cable is plugged into the slot  $T_{soil}$  **A1** (Tempra B) or  $T_{soil}$  **D** (Tempra Plus) on the main PCB.



- ① Selection of °F or °C units
- Set jumper on the dial-printed circuit board to °F or °C.
- ② **Activate anti-scalding protection function**

On the Tempra Plus, an anti-scalding protection function can be activated by two different methods.

1. Limit the outlet temperature to the fixed temperature of 109 °F (43 °C).
- Insert the coding plug into position Tred (reduced temperature).

2. Select a specific outlet temperature

- Switch the appliance 'live'.
- Open the casing so that coding plug  $T_{max}$  /  $T_{red}$  becomes accessible.
- Set the temperature selector to "OFF". The coding plug must be set to  $T_{max}$  (standard delivery).
- Set coding plug to  $T_{red}$ ; the setting mode will be activated and the flashing display shows the current temperature limit.
- Within the next 30 seconds, you can select the required temperature (display continues to flash). The setting mode will terminate after 30 seconds; the programming unit will display "OFF" again.

## 10. Commissioning the water heater



**WARNING:** Open hot water faucet for a few minutes until water flow is continuous and all air is purged from water pipes. The unit's cover must be installed before the circuit breakers are turned on.

1. Close the cover and fix it using the screw with the lock washer.
2. Turn on circuit breakers to bring electrical power to the unit.
3. Turn the temperature selector clockwise and anti-clockwise, to calibrate the set value transducer.
4. Adjust the water temperature to the desired level using the knob on the front cover of the unit.
5. Turn on hot water and wait twenty seconds until temperature has stabilized.
6. Check the water temperature with your hand and make sure that it does not feel too hot. Reduce if necessary.
7. Explain to the user how the unit works and familiarize him or her with its use.  
Advise the user about possible hazards (hot water temperature up to 140 °F / 60 °C). Hand over these instructions, to be kept for future reference.

## 11. Normal maintenance



**NOTICE:** The Tempra does not contain any parts serviceable by the average user. In case of malfunction please contact a licensed plumber or electrician.

Stiebel Eltron Tempra tankless water heaters are designed for a very long service life. Actual life expectancy will vary with water quality and use. The unit itself does not require any regular maintenance. However, to ensure consistent water flow, it is recommended to periodically remove scale and dirt that may build up at the aerator of the faucet(s), the filter screen in the unit, or in the shower head.

## 12. Troubleshooting

Symptom	Possible cause	Solution
No hot water	- circuit breakers off - safety thermal cut-out tripped - not enough flow rate to activate unit	- turn circuit breakers on - reset safety thermal cut-out - clean filter screen at unit - clean faucet aerator or shower head
Not enough hot water	- filter screen clogged	- clean filter screen at unit
Water not hot enough	- water flow rate too high - voltage too low	- reduce water flow rate until power light on front cover stops blinking - supply correct voltage to unit

If you are not able to resolve a problem please contact us toll free at 800-582-8423 before removing the unit from the wall. Stiebel Eltron is happy to provide technical assistance. In most instances, we can resolve the problem over the phone.

## 13. Technical Data

### 13.1 Tempra B

	Tempra 12 B	Tempra 15 B	Tempra 20 B	Tempra 24 B <sup>3</sup>	Tempra 29 B <sup>4</sup>	Tempra 36 B <sup>5</sup>
Part number	223420	223421	223422	223424	232885	232886
<b>Electrical details</b>						
Phase	single 50/60 Hz	single <sup>6</sup> 50/60 Hz	single <sup>6</sup> 50/60 Hz	single <sup>6</sup> 50/60 Hz	single <sup>6</sup> 50/60 Hz	single <sup>6</sup> 50/60 Hz
Voltage	240 V 208 V	240 V 208 V	240 V 208 V	240 V 208 V	240 V 208 V	240 V 208 V
Wattage	12 kW 9 kW	14.4 kW 10.8 kW	19.2 kW 14.4 kW	24 kW 18 kW	28.8 kW 21.6 kW	36 kW 27 kW
Max. amp. load	1 x 50 A 1 x 44 A	2 x 30 A 2 x 26 A	2 x 40 A 2 x 35 A	2 x 50 A 2 x 44 A	3 x 40 A 3 x 35 A	3 x 50 A 3 x 44 A
Number & min. recommended size of circuit breakers <sup>1</sup> (DP)						
	1 x 50 A	2 x 30 A	2 x 40 A 2 x 35 A	2 x 50 A	3 x 40 A 3 x 35 A	3 x 50 A
Power connection						
	1/N/GRD	2/GRD	2/GRD	2/GRD	3/GRD	3/GRD
Min. recommended wire size (copper) <sup>2</sup>						
	1 x 6/2 AWG	2 x 10/2 AWG	2 x 8/2 AWG	2 x 6/2 AWG	3 x 8/2 AWG	3 x 6/2 AWG
<b>Connections</b>						
Water connection						
	3/4" NPT					
Max. cold water temperature						
	108°F / 42°C					
<b>Hydraulic data</b>						
Rated capacity						
	0.13 gal / 0.5 l	0.26 gal / 1.0 l	0.26 gal / 1.0 l	0.26 gal / 1.0 l	0.39 gal / 1.5 l	0.39 gal / 1.5 l
<b>Values</b>						
ON						
	1.4 l/min	1.9 l/min	1.9 l/min	1.9 l/min	2.9 l/min	2.9 l/min
	0.37 GPM	0.5 GPM	0.5 GPM	0.5 GPM	0.77 GPM	0.77 GPM
Max. permissible inlet temperature						
	131°F / 55°C					
<b>Application limits</b>						
Max. permissible pressure						
	150 PSI / 1.0 MPa					
Test pressure						
	300 PSI / 2.0 MPa					
<b>Versions</b>						
Temperature display						
	digital					
Cap and back panel						
	sheet steel					
Colour						
	grey					
<b>Dimensions</b>						
Height						
	14.52 in / 369 mm					
Width						
	16.54 in / 420 mm					
Depth						
	4.61 in / 117 mm					
<b>Weights</b>						
Weight						
	13.5 lbs / 6.1 kg	16.1 lbs / 7.3 kg	16.1 lbs / 7.3 kg	16.1 lbs / 7.3 kg	19 lbs / 8.6 kg	19 lbs / 8.6 kg

<sup>1</sup> This is our recommendation for overcurrent protection sized at 100% of load. Check local codes for compliance if necessary.

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

<sup>3</sup> Requires a 150 A main service.

<sup>4</sup> Requires a 200 A main service.

<sup>5</sup> Requires a 300 A main service.

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

# INSTALLATION TECHNICAL DATA

## 13.2 Tempra Plus

	Tempra 12 Plus	Tempra 15 Plus	Tempra 20 Plus	Tempra 24 Plus <sup>3</sup>	Tempra 29 Plus <sup>4</sup>	Tempra 36 Plus <sup>5</sup>
Part number	224196	224197	224198	224199	223425	223426
<b>Electrical details</b>						
Phase	single 50/60 Hz	single <sup>6</sup> 50/60 Hz	single <sup>6</sup> 50/60 Hz	single <sup>6</sup> 50/60 Hz	single <sup>6</sup> 50/60 Hz	single <sup>6</sup> 50/60 Hz
Voltage	240 V 208 V	240 V 208 V	240 V 208 V	240 V 208 V	240 V 208 V	240 V 208 V
Wattage	12 kW 9 kW	14.4 kW 10.8 kW	19.2 kW 14.4 kW	24 kW 18 kW	28.8 kW 21.6 kW	36 kW 27 kW
Max. amp. load	1 x 50 A 1 x 44 A	2 x 30 A 2 x 26 A	2 x 40 A 2 x 35 A	2 x 50 A 2 x 44 A	3 x 40 A 3 x 35 A	3 x 50 A 3 x 44 A
Number & min. recommended size of circuit breakers <sup>1</sup> (DP)	1 x 50 A	2 x 30 A	2 x 40 A 2 x 35 A	2 x 50 A	3 x 40 A 3 x 35 A	3 x 50 A
Power connection	1/N/GRD	2/GRD	2/GRD	2/GRD	3/GRD	3/GRD
Min. recommended wire size (copper) <sup>2</sup>	1 x 6/2 AWG	2 x 10/2 AWG	2 x 8/2 AWG	2 x 6/2 AWG	3 x 8/2 AWG	3 x 6/2 AWG
<b>Connections</b>						
Water connection	3/4" NPT					
Max. cold water temperature	108°F / 42°C					
<b>Hydraulic data</b>						
Rated capacity	0.13 gal / 0.5 l	0.26 gal / 1.0 l	0.26 gal / 1.0 l	0.26 gal / 1.0 l	0.39 gal / 1.5 l	0.39 gal / 1.5 l
<b>Values</b>						
ON	1.4 l/min	1.9 l/min	1.9 l/min	1.9 l/min	2.9 l/min	2.9 l/min
ON	0.37 GPM	0.5 GPM	0.5 GPM	0.5 GPM	0.77 GPM	0.77 GPM
Max. permissible inlet temperature	131°F / 55°C					
<b>Application limits</b>						
Max. permissible pressure	150 PSI / 1.0 MPa					
Test pressure	300 PSI / 2.0 MPa					
<b>Versions</b>						
Temperature display	digital					
Cap and back panel	sheet steel					
Colour	grey					
<b>Dimensions</b>						
Height	14.52 in / 369 mm					
Width	16.54 in / 420 mm					
Depth	4.61 in / 117 mm					
<b>Weights</b>						
Weight	13.5 lbs / 6.1 kg	16.1 lbs / 7.3 kg	16.1 lbs / 7.3 kg	16.1 lbs / 7.3 kg	19 lbs / 8.6 kg	19 lbs / 8.6 kg

<sup>1</sup> This is our recommendation for overcurrent protection sized at 100% of load. Check local codes for compliance if necessary.

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

<sup>3</sup> Requires a 150 A main service.

<sup>4</sup> Requires a 200 A main service.

<sup>5</sup> Requires a 300 A main service.

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

# INSTALLATION TECHNICAL DATA

ENGLISH

## 13.3 Temperature increase above ambient water temperature

	Cold water inlet temp.	Hot water flow rate [ GPM ]						Hot water flow rate [ l/m ]					
		Hot water outlet temperature 105°F						Hot water outlet temperature 40°C					
		39°F	59°F	77°F	95°F	113°F	131°F	4°C	15°C	25°C	35°C	45°C	55°C
Tempra 12 B / Tempra 12 Plus	9 kW @ 208 V	0.95	1.36	2.27	6.61	-	-	3.58	5.16	8.59	25.00	-	-
	12 kW @ 220-240 V	1.26	1.82	3.03	6.61	-	-	4.77	6.87	11.46	25.00	-	-
Tempra 15 B / Tempra 15 Plus	10.8 kW @ 208 V	1.14	1.63	2.72	6.61	-	-	4.30	6.19	10.31	25.00	-	-
	14.4 kW @ 220-240 V	1.51	2.18	3.63	6.61	-	-	5.73	8.25	13.75	25.00	-	-
Tempra 20 B / Tempra 20 Plus	14.4 kW @ 208 V	1.51	2.18	3.63	6.61	-	-	5.73	8.25	13.75	25.00	-	-
	19.2 kW @ 220-240 V	2.02	2.91	4.84	6.61	-	-	7.64	11.00	18.33	25.00	-	-
Tempra 24 B / Tempra 24 Plus	18 kW @ 208 V	1.89	2.72	4.54	6.61	-	-	7.16	10.31	17.18	25.00	-	-
	24 kW @ 220-240 V	2.52	3.63	6.05	6.61	-	-	9.55	13.75	22.91	25.00	-	-
Tempra 29 B / Tempra 29 Plus	21.6 kW @ 208 V	2.27	3.27	5.45	6.61	-	-	8.59	12.37	20.62	25.00	-	-
	28.8 kW @ 220-240 V	3.03	4.36	6.61	6.61	-	-	11.46	16.50	25.00	25.00	-	-
Tempra 36 B / Tempra 36 Plus	27 kW @ 208 V	2.84	4.09	6.61	6.61	-	-	10.74	15.47	25.00	25.00	-	-
	36 kW @ 220-240 V	3.78	5.45	6.61	6.61	-	-	14.32	20.62	25.00	25.00	-	-

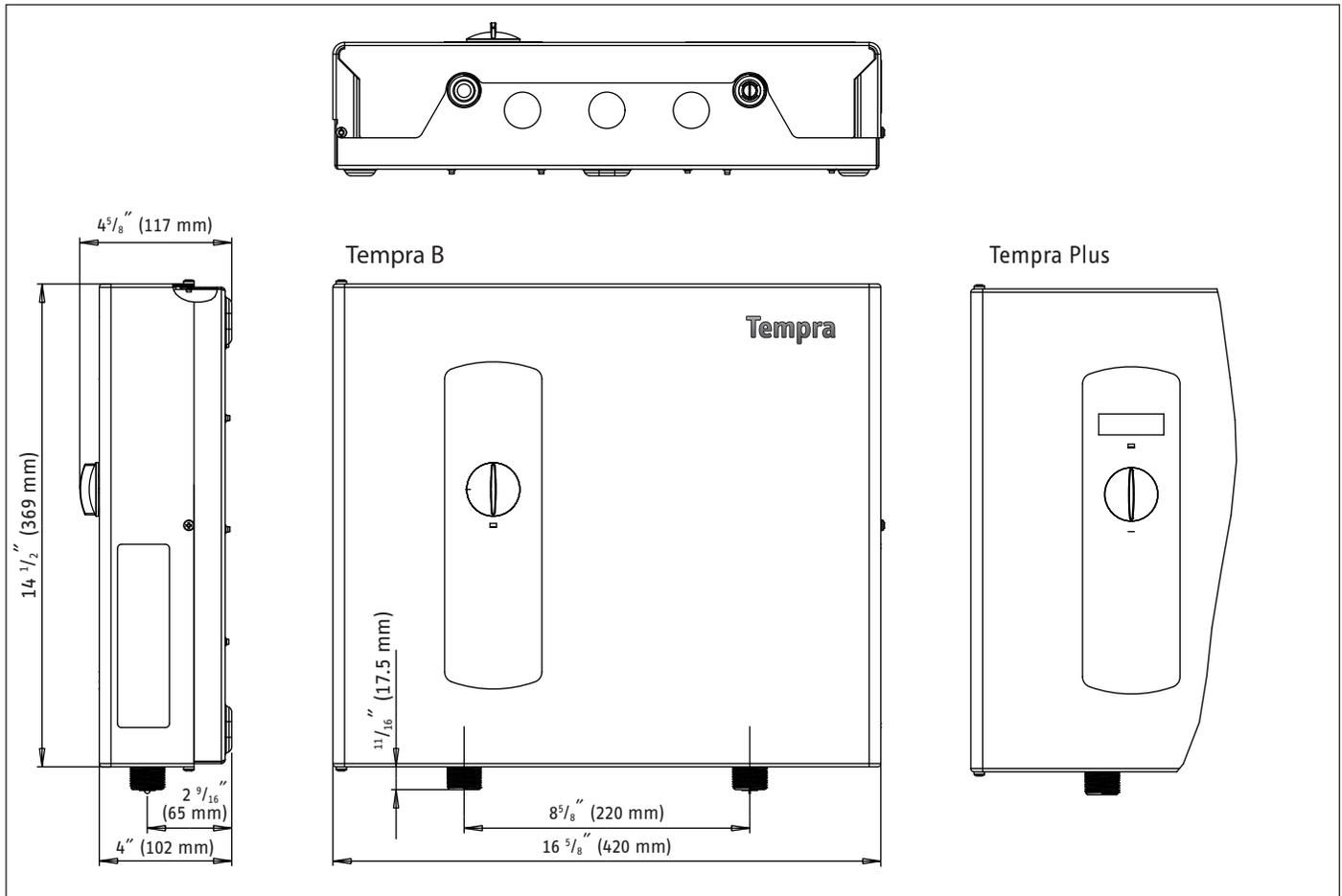
	Cold water inlet temp.	Hot water flow rate [ GPM ]						Hot water flow rate [ l/m ]					
		Hot water outlet temperature 113°F						Hot water outlet temperature 45°C					
		39°F	59°F	77°F	95°F	113°F	131°F	4°C	15°C	25°C	35°C	45°C	55°C
Tempra 12 B / Tempra 12 Plus	9 kW @ 208 V	0.83	1.14	1.70	3.41	6.61	-	3.14	4.30	6.44	12.89	25.00	-
	12 kW @ 220-240 V	1.11	1.51	2.27	4.54	6.61	-	4.19	5.73	8.59	17.18	25.00	-
Tempra 15 B / Tempra 15 Plus	10.8 kW @ 208 V	1.00	1.36	2.04	4.09	6.61	-	3.77	5.16	7.73	15.47	25.00	-
	14.4 kW @ 220-240 V	1.33	1.82	2.72	5.45	6.61	-	5.03	6.87	10.31	20.62	25.00	-
Tempra 20 B / Tempra 20 Plus	14.4 kW @ 208 V	1.33	1.82	2.72	5.45	6.61	-	5.03	6.87	10.31	20.62	25.00	-
	19.2 kW @ 220-240 V	1.77	2.45	3.63	6.61	6.61	-	6.71	9.16	13.75	25.00	25.00	-
Tempra 24 B / Tempra 24 Plus	18 kW @ 208 V	1.66	2.27	3.41	6.61	6.61	-	6.29	8.59	12.89	25.00	25.00	-
	24 kW @ 220-240 V	2.21	3.03	4.54	6.61	6.61	-	8.38	11.46	17.18	25.00	25.00	-
Tempra 29 B / Tempra 29 Plus	21.6 kW @ 208 V	1.99	2.72	4.09	6.61	6.61	-	7.54	10.31	15.47	25.00	25.00	-
	28.8 kW @ 220-240 V	2.66	3.63	5.45	6.61	6.61	-	10.06	13.75	20.62	25.00	25.00	-
Tempra 36 B / Tempra 36 Plus	27 kW @ 208 V	2.49	3.41	5.11	6.61	6.61	-	9.43	12.89	19.33	25.00	25.00	-
	36 kW @ 220-240 V	3.32	4.54	6.61	6.61	6.61	-	12.57	17.18	25.00	25.00	25.00	-

	Cold water inlet temp.	Hot water flow rate [ GPM ]						Hot water flow rate [ l/m ]					
		Hot water outlet temperature 140°F						Hot water outlet temperature 60°C					
		39°F	59°F	77°F	95°F	113°F	131°F	4°C	15°C	25°C	35°C	45°C	55°C
Tempra 12 B / Tempra 12 Plus	9 kW @ 208 V	0.61	0.76	0.97	1.36	2.27	6.61	2.30	2.86	3.68	5.16	8.59	25.00
	12 kW @ 220-240 V	0.81	1.01	1.30	1.82	3.03	6.61	3.07	3.82	4.91	6.87	11.46	25.00
Tempra 15 B / Tempra 15 Plus	10.8 kW @ 208 V	0.73	0.91	1.17	1.63	2.72	6.61	2.76	3.44	4.42	6.19	10.31	25.00
	14.4 kW @ 220-240 V	0.97	1.21	1.56	2.18	3.63	6.61	3.68	4.58	5.89	8.25	13.75	25.00
Tempra 20 B / Tempra 20 Plus	14.4 kW @ 208 V	0.97	1.21	1.56	2.18	3.63	6.61	3.68	4.58	5.89	8.25	13.75	25.00
	19.2 kW @ 220-240 V	1.30	1.61	2.08	2.91	4.84	6.61	4.91	6.11	7.86	11.00	18.33	25.00
Tempra 24 B / Tempra 24 Plus	18 kW @ 208 V	1.22	1.51	1.95	2.72	4.54	6.61	4.60	5.73	7.36	10.31	17.18	25.00
	24 kW @ 220-240 V	1.62	2.02	2.59	3.63	6.05	6.61	6.14	7.64	9.82	13.75	22.91	25.00
Tempra 29 B / Tempra 29 Plus	21.6 kW @ 208 V	1.46	1.82	2.33	3.27	5.45	6.61	5.52	6.87	8.84	12.37	20.62	25.00
	28.8 kW @ 220-240 V	1.95	2.42	3.11	4.36	6.61	6.61	7.36	9.16	11.78	16.50	25.00	25.00
Tempra 36 B / Tempra 36 Plus	27 kW @ 208 V	1.82	2.27	2.92	4.09	6.61	6.61	6.90	8.59	11.05	15.47	25.00	25.00
	36 kW @ 220-240 V	2.43	3.03	3.89	5.45	6.61	6.61	9.21	11.46	14.73	20.62	25.00	25.00

# INSTALLATION TECHNICAL DATA

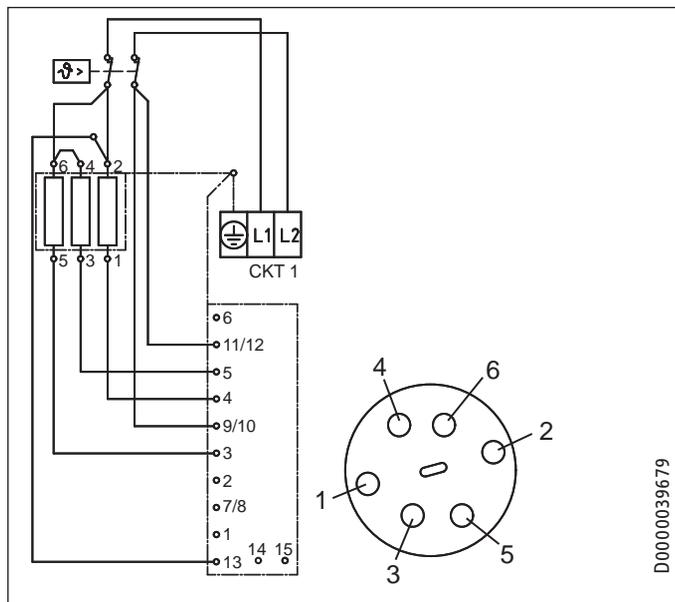
## 13.4 Dimensions

### Tempra B / Tempra Plus

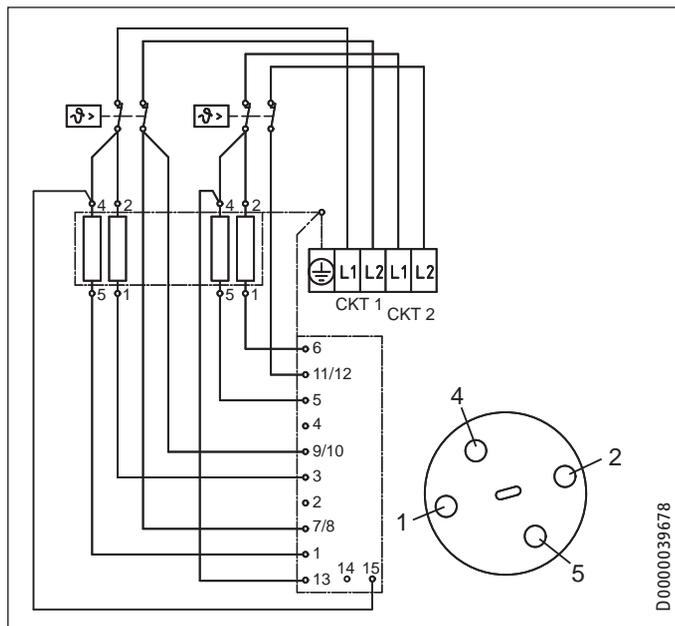


## 13.5 Wiring Diagrams

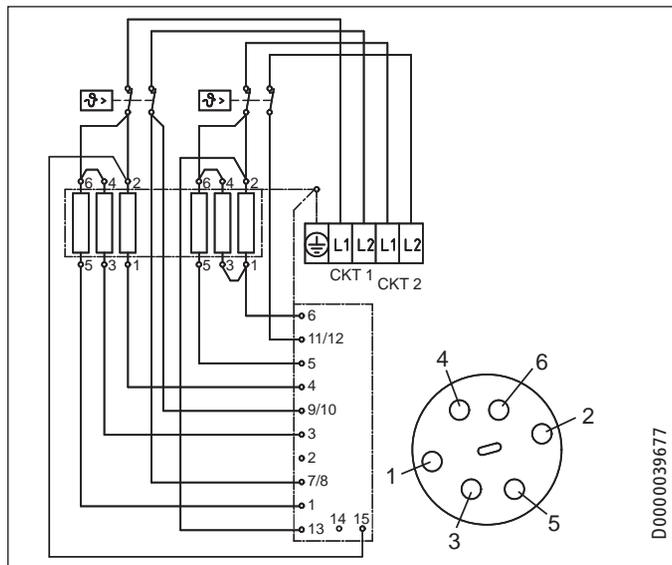
### 13.5.1 Tempra 12 B / Tempra 12 Plus



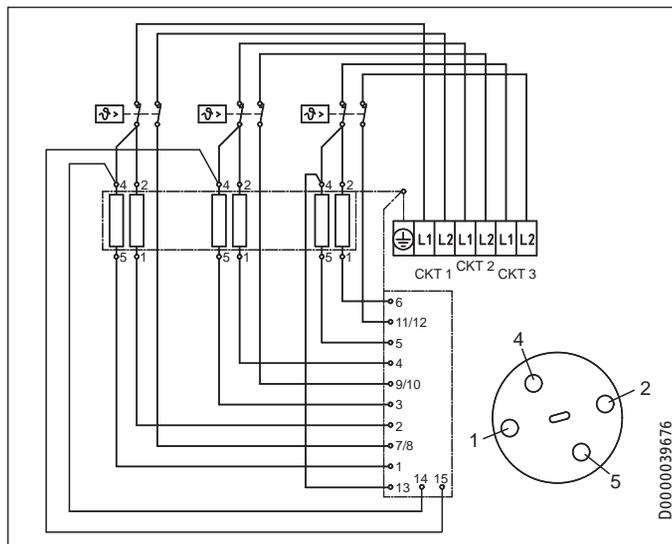
### 13.5.2 Tempra 15, 20 B / Tempra 15,20 Plus



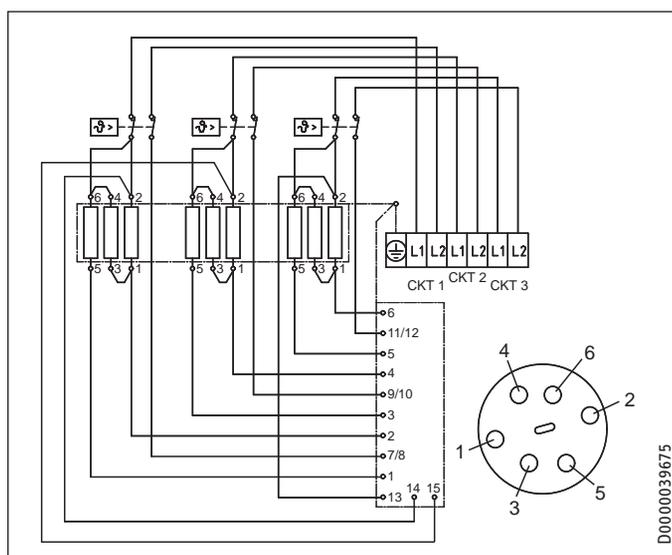
### 13.5.3 Tempra 24 B / Tempra 24 Plus



### 13.5.4 Tempra 29 B / Tempra 29 Plus



### 13.5.5 Tempra 36 B / Tempra 36 Plus



# INSTALLATION

## SPARE PARTS

### 14. Spare parts

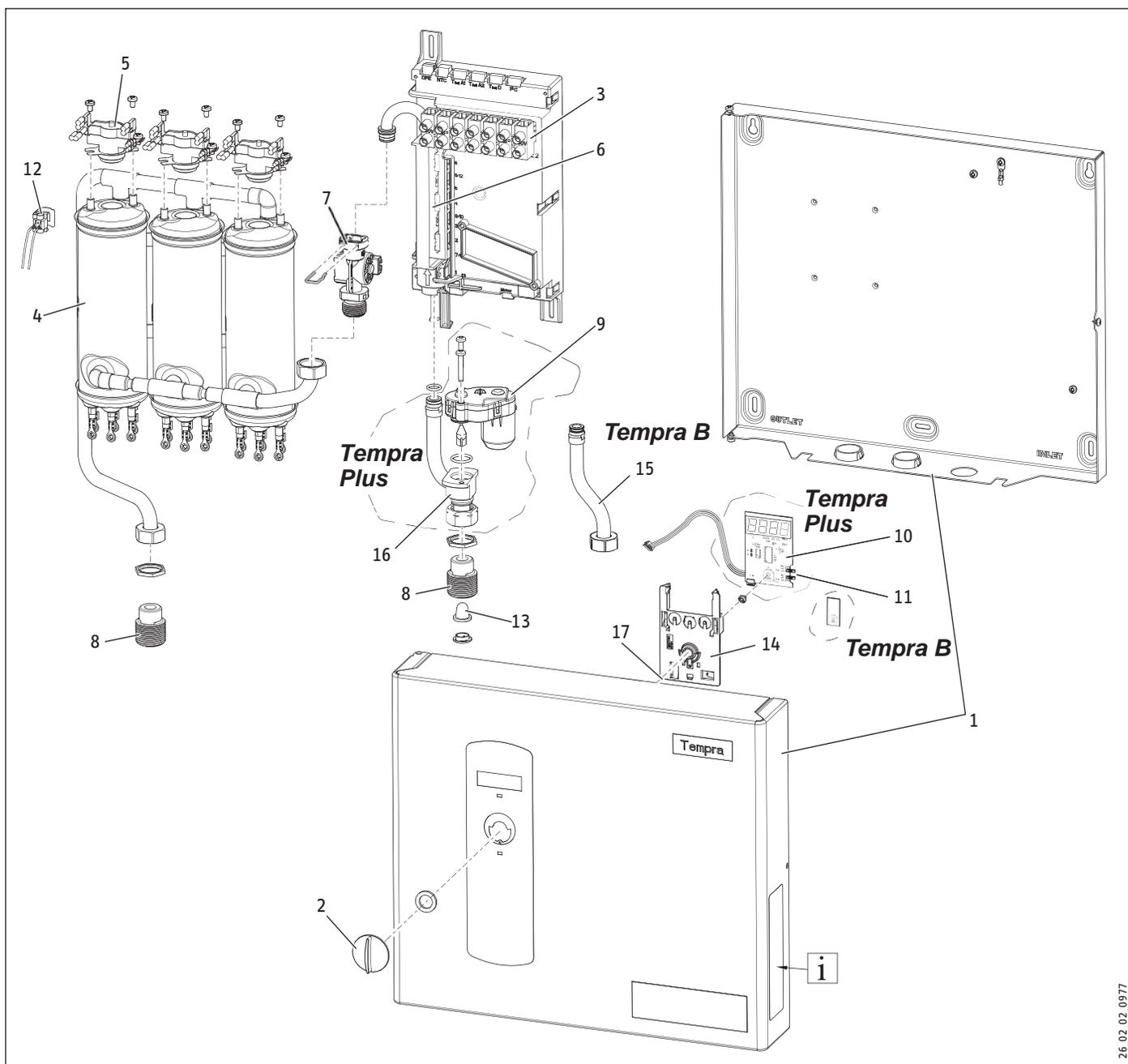
	Spare part No.						
	1	2	3	4	5	6	7
	Housing	Temp. control knob	Wiring block	Heating system	Safety thermal cut out	Electronic control device	Flow sensor
Tempra 12 B	286356	254307	279998	286360	286369	286366	286461
Tempra 15 B	286356	254307	279997	286361	286369	286844	286461
Tempra 20 B	286356	254307	279997	286362	286369	286844	286461
Tempra 24 B	286356	254307	279997	286364	286369	286367	286461
Tempra 29 B	286356	254307	279996	286373	286369	296888	286461
Tempra 36 B	286356	254307	279996	286374	286369	296889	286461
Tempra 12 Plus	286370	254307	279998	286360	286369	286375	286461
Tempra 15 Plus	286370	254307	279997	286361	286369	286845	286461
Tempra 20 Plus	286370	254307	279997	286362	286369	286845	286461
Tempra 24 Plus	286370	254307	279997	286364	286369	286376	286461
Tempra 29 Plus	286370	254307	279996	286373	286369	286378	286461
Tempra 36 Plus	286370	254307	279996	286374	286369	286379	286461

	Spare part No.						
	8	9	10	11	12	13	14
	Plumbing connection 3/4"	Advanced Flow Control	Electronic temp. control	Jumpers	Temperature sensor	Filter screen	Set point case
Tempra 12 B	278698	---	286359	---	280677	056755	280730
Tempra 15 B	278698	---	286359	---	280677	056755	280730
Tempra 20 B	278698	---	286359	---	280677	056755	280730
Tempra 24 B	278698	---	286359	---	280677	056755	280730
Tempra 29 B	278698	---	286359	---	280677	056755	280730
Tempra 36 B	278698	---	286359	---	280677	056755	280730
Tempra 12 Plus	278698	220502	286372	283455	280677	056755	280730
Tempra 15 Plus	278698	220502	286372	283455	280677	056755	280730
Tempra 20 Plus	278698	220502	286372	283455	280677	056755	280730
Tempra 24 Plus	278698	220502	286372	283455	280677	056755	280730
Tempra 29 Plus	278698	220502	286372	283455	280677	056755	280730
Tempra 36 Plus	278698	220502	286372	283455	280677	056755	280730

# INSTALLATION

## SPARE PARTS

	Spare part No.		
	15	16	17
	Inlet pipe elbow	Valve assembly	Axis connection
Tempra 12 B	278695	---	254312
Tempra 15 B	278695	---	254312
Tempra 20 B	278695	---	254312
Tempra 24 B	278695	---	254312
Tempra 29 B	278695	---	254312
Tempra 36 B	278695	---	254312
Tempra 12 Plus	---	280622	254312
Tempra 15 Plus	---	280622	254312
Tempra 20 Plus	---	280622	254312
Tempra 24 Plus	---	280622	254312
Tempra 29 Plus	---	280622	254312
Tempra 36 Plus	---	280622	254312



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## 15. Warranty

### LIMITED WARRANTY

Subject to the terms and conditions set forth in this limited warranty, Stiebel Eltron, Inc. (the "Manufacturer") hereby warrants to the original purchaser (the "Owner") that each Tankless Electric Domestic Hot Water Heater (the "Heater") shall not (i) leak due to defects in the Manufacturer's materials or workmanship for a period of seven (7) years from the date of purchase or (ii) fail due to defects in the Manufacturer's materials or workmanship for a period of three (3) years from the date of purchase. As Owner's sole and exclusive remedy for breach of the above warranty, Manufacturer shall, at the Manufacturer's discretion, send replacement parts for local repair; retrieve the unit for factory repair, or replace the defective Heater with a replacement unit with comparable operating features. Manufacturer's maximum liability under all circumstances shall be limited to the Owner's purchase price for the Heater.

This limited warranty shall be the exclusive warranty made by the Manufacturer and is made in lieu of all other warranties, express or implied, whether written or oral, including, but not limited to warranties of merchantability and fitness for a particular purpose. Manufacturer shall not be liable for incidental, consequential or contingent damages or expenses arising directly or indirectly from any defect in the Heater or the use of the Heater. Manufacturer shall not be liable for any water damage or other damage to property of Owner arising, directly or indirectly, from any defect in the Heater or the use of the Heater. Manufacturer alone is authorized to make all warranties on Manufacturer's behalf and no statement, warranty or guarantee made by any other party shall be binding on Manufacturer.

Manufacturer shall not be liable for any damage whatsoever relating to or caused by:

1. any misuse or neglect of the Heater, any accident to the Heater, any alteration of the Heater, or any other unintended use;
2. acts of God and circumstances over which Manufacturer has no control;

3. installation of the Heater other than as directed by Manufacturer and other than in accordance with applicable building codes;
4. failure to maintain the Heater or to operate the Heater in accordance with the Manufacturer's specifications;
5. operation of the Heater under fluctuating water pressure or in the event the Heater is supplied with non-potable water, for any duration;
6. improper installation and/or improper materials used by any installer and not relating to defects in parts or workmanship of Manufacturer;
7. moving the Heater from its original place of installation;
8. exposure to freezing conditions;
9. water quality issues such as corrosive water, hard water, and water contaminated with pollutants or additives;

Should owner wish to return the Heater to manufacturer for repair or replacement under this warranty, Owner must first secure written authorization from Manufacturer. Owner shall demonstrate proof of purchase, including a purchase date, and shall be responsible for all removal and transportation costs. If Owner cannot demonstrate a purchase date this warranty shall be limited to the period beginning from the date of manufacture stamped on the Heater. Manufacturer reserves the right to deny warranty coverage upon Manufacturer's examination of Heater. This warranty is restricted to the Owner and cannot be assigned.

Some States and Provinces do not allow the exclusion or limitation of certain warranties. In such cases, the limitations set forth herein may not apply to the Owner. In such cases this warranty shall be limited to the shortest period and lowest damage amounts allowed by law. This warranty gives you specific legal rights and you may also have other rights which vary from State to State or Province to Province.

Owner shall be responsible for all labor and other charges incurred in the removal or repair of the Heater in the field. Please also note that the Heater must be installed in such a manner that if any leak does occur, the flow of water from any leak will not damage the area in which it is installed.



**The installation, electrical connection and first operation of this appliance should be carried out by a qualified installer.**



**The company does not accept liability for failure of any goods supplied which have not been installed and operated in accordance with the manufacturer's instructions.**

### Environment and recycling

Please help us to protect the environment by disposing of the packaging in accordance with the national regulations for waste processing.

This Warranty is valid for U.S.A. & Canada only. Warranties may vary by country. Please consult your local Stiebel Eltron Representative for the Warranty for your country.