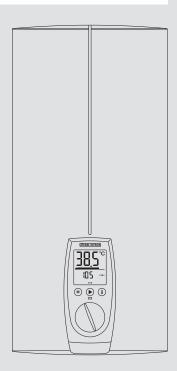
# **OPERATION AND INSTALLATION**

Instantaneous water heater with full electronic control

- » DHE 18 AU
- » DHE 27 AU



STIEBEL ELTRON

#### **SPECIAL INFORMATION**

#### **OPERATION**

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# SPECIAL INFORMATION

- The appliance may be used by children aged 8 and up and persons with reduced physical, sensory or mental capabilities or a lack of experience and know-how, provided that they are supervised or they have been instructed on how to use the appliance safely and have understood the resulting risks. Children must never play with the appliance. Children must never clean the appliance or perform user maintenance unless they are supervised.
- Ensure the appliance can be separated from the power supply by an isolator that disconnects all poles with at least 3 mm contact separation.
- Secure the appliance as described in chapter "Installation".
- Observe the maximum permissible pressure (see chapter "Specification / Data table").
- Drain the appliance as described in chapter "Installation / Maintenance / Draining the appliance".

WARRANTY | ENVIRONMENT AND RECYCLING

# **OPERATION**

#### **General information** 1.

The chapter "Operation" is intended for appliance users and qualified contractors.

The chapter "Installation" is intended for qualified contractors.



#### Note

Read these instructions carefully before using the appliance and retain them for future reference.

Pass on the instructions to a new user if required.

#### Safety instructions 1.1

#### 1.1.1 Structure of safety instructions



#### **KEYWORD Type of risk**

Here, possible consequences are listed that may result from failure to observe the safety instructions.

► Steps to prevent the risk are listed.

#### 1.1.2 Symbols, type of risk

Symbol	Type of risk
$\overline{\mathbf{V}}$	Injury
A	Electrocution
	Burns or scalding

#### 1.1.3 Keywords

KEYWORD	Meaning
DANGER	Failure to observe this information will result in serious injury or death.
WARNING	Failure to observe this information may result in serious injury or death.
CAUTION	Failure to observe this information may result in non-serious or minor injury.

#### Other symbols in this documentation 1.2



Notes are bordered by horizontal lines above and below the text. General information is identified by the symbol shown on the left.

► Read these texts carefully.

Symbol	
!	Material losses (appliance damage, consequential losses and environmental pollution)
	Appliance disposal

► This symbol indicates that you have to do something. The action you need to take is described step by step.

#### Units of measurement 1.3



#### Note

Unless specified otherwise, all dimensions are given in mm.

#### Safety 2.

#### Intended use 2.1

This appliance is intended for domestic use. It can be used safely by untrained persons. The appliance can also be used in a non-domestic environment, e.g. in a small business, as long as it is used in the same way.

Any other use beyond that described shall be deemed inappropriate. Observation of these instructions and of instructions for any accessories used is also part of the correct use of this appliance.

This pressurised appliance is suitable for heating domestic hot water or for reheating preheated water. The appliance can supply one or more draw-off points.

#### 2.2 **General safety instructions**



#### **CAUTION Burns**

During operation, the tap can reach temperatures in excess of 60 °C.

There is a risk of scalding at outlet temperatures in excess of 43 °C.



### **WARNING Injury**

The appliance may be used by children aged 8 and up and persons with reduced physical, sensory or mental capabilities or a lack of experience and know-how, provided that they are supervised or they have been instructed on how to use the appliance safely and have understood the resulting risks. Children must never play with the appliance. Children must never clean the appliance or perform user maintenance unless they are supervised.

### **OPERATION**

## Appliance description

Where children or persons with limited physical, sensory or mental abilities are allowed to use this appliance, we recommend a permanent temperature limit. The limit can be set by you or a qualified contractor:

- Childproofing adjustable by the user
- Anti-scalding protection adjustable by the qualified contractor



#### Material losses

Protect the appliance and its tap against frost.

### 2.3 CE designation

The CE designation shows that the appliance meets all essential requirements according to the:

- Low Voltage Directive
- Electromagnetic Compatibility Directive
   The maximum permissible mains impedance is indicated in chapter "Specification".

### 2.4 Test symbols

See type plate on the appliance

#### Information for Australia/New Zealand:

Installation complies with standard AS/NZS 3500.4.

## 3. Appliance description

This appliance with full electronic control and output matching keeps the outlet temperature constant. The water is heated by the electronic control unit with motorised valve to precisely the selected temperature. This occurs regardless of the inlet temperature.

#### **DHW** temperature

The DHW outlet temperature can be variably adjusted. The selected temperature is displayed.

#### **Heating system**

The bare wire heating system has a pressure-tested copper casing. The heating system is suitable for hard and soft water areas; it has low susceptibility to scale build-up. This system ensures rapid and efficient DHW availability.



#### Note

The appliance is equipped with an air detector that largely prevents damage to the heating system. If, during operation, air is drawn into the appliance, the heater shuts down automatically for one minute, thereby protecting the heating system.

#### Display backlighting

The display features two-tone backlighting (green / amber).

#### Efficiency display

Green ECO backlighting indicates that the appliance is operating in a particularly economical way

- when the output is less than 80 %
- when the maximum output is less than 80 % while the inlet temperature is higher than 35 °C
- when the maximum output is less than 80 % while the ECO function is switched on

Under all other operating conditions, the backlighting is amber.

#### **Economy monitor**

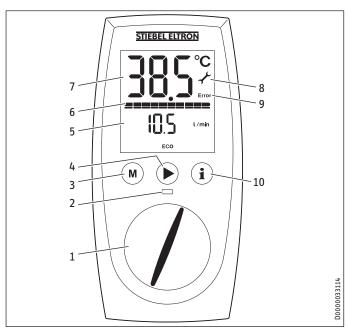
The appliance has an economy monitor. This is activated by pressing the appropriate key. Advertisements:

- Energy savings\*
- Water savings\*
- CO<sub>2</sub> savings\*
- Energy consumption
- Water consumption
- \* Compared to hydraulic instantaneous water heaters. Calculation for a 3-person household with individual DHW requirements and usable energy requirements subject to VDI 2067. Electricity and water costs can be programmed individually.

## Settings and displays

## 4. Settings and displays

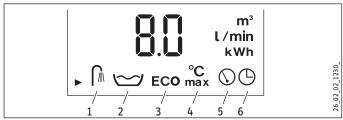
#### 4.1 User interface



- 1 Temperature selector
- 2 Scalding risk LED
- 3 Memory key
- 4 Menu key
- 5 Additional value display
- 6 Heating output display
- 7 Temperature display
- 8 Service symbol
- 9 Fault symbol
- 10 Economy monitor information key

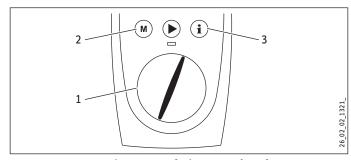
When the appliance is delivered the backlighting is set so that the screen is illuminated automatically as soon as you operate the selector or a key, or the appliance heats. If the selector or a key is not pressed or the appliance does not heat for 30 seconds, the backlighting switches off. You can also set the illumination to be on constantly.

#### Display symbols



- 1 Wellness shower programs
- 2 Automatic water volume control
- 3 ECO
- 4 Childproofing
- 5 Additional value display
- 6 Time

### 4.2 Setting the temperature



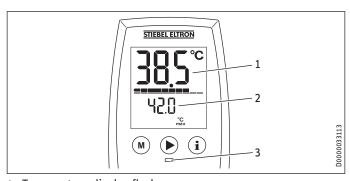
- 1 Temperature setting 20 60 °C in steps of 0.5 °C, OFF = heating system switched off
- 2 Programmed temperature selection
- 3 Economy monitor selection

You can store a preferred temperature with memory key M.

- ► Select a preferred temperature.
- ► Press the M key for 2 seconds. The temperature display flashes once to confirm.

#### Inlet temperature information

If the inlet temperature is higher than the preferred temperature, e.g. if water has been preheated by solar energy, then the temperature display flashes and the second display indicates the inlet temperature. No further heating of the water occurs.



- 1 Temperature display flashes
- 2 Inlet temperature display
- 3 Scalding risk LED; red LED when the temperature setting >

## Recommended setting for operation with a thermostatic valve

Set the temperature at the appliance to 60 °C.

#### 4.3 Following an interruption of the water supply



#### **Material losses**

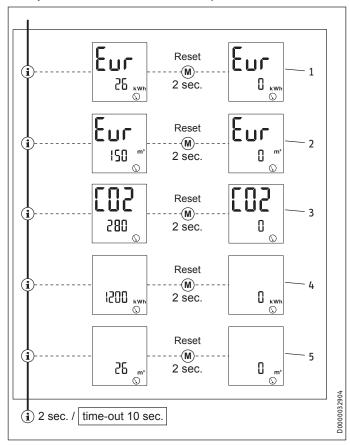
Following an interruption of the water supply the appliance must be recommissioned by carrying out the following steps, in order to prevent the destruction of the bare wire heating system.

- ► Disconnect the appliance from the power supply by removing the fuses/tripping the MCBs.
- ► Open the tap for one minute until the appliance and its upstream cold water inlet line are free of air.
- ► Switch the mains power back ON again.

## Settings and displays

### 4.4 Economy monitor selection

#### Example menu structure with currency in euros (Eur)



#### 1 Energy saving

The energy saving in euros (Eur) in comparison to hydraulic instantaneous water heaters is calculated and displayed.

#### 2 Water saving

The water saving in euros (Eur) in comparison to hydraulic instantaneous water heaters is calculated and displayed.

### 3 CO2 emissions

The CO2 saving in kg in comparison to hydraulic instantaneous water heaters is calculated and displayed.

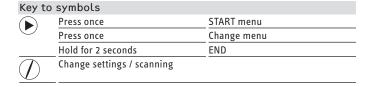
#### 4 Amount of energy

The amount of energy consumed in kWh is displayed.

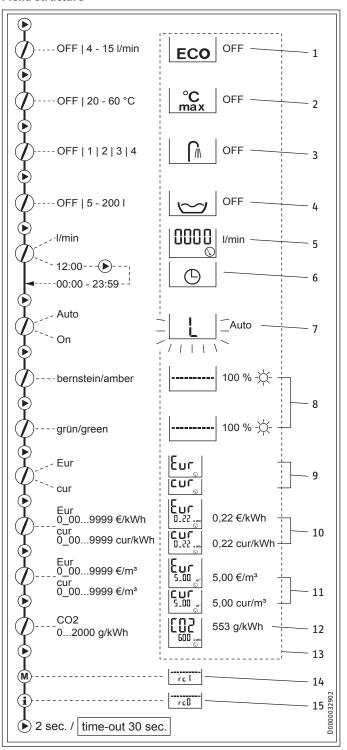
#### 5 Water consumption

The amount of water consumed in m<sup>3</sup> is displayed.

## 4.5 Appliance settings



#### Menu structure



## **OPERATION**

## Settings and displays

#### 1 ECO water and energy saving function

The ECO function enables you to limit the flow rate to a maximum value.

ECO on = symbol on user interface

ECO off = no symbol on user interface

#### 2 Childproofing

Childproofing allows you as a user to limit the adjustable temperature at the appliance to a maximum value. In service mode, your qualified contractor can also set a temperature for anti-scalding protection (see chapter "Service mode"). This temperature then acts as the upper limit of the setting range for childproofing.

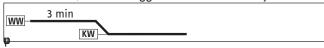
#### 3 Wellness shower programs

The Wellness shower program lets you choose from 4 different shower programs.

WW = domestic hot water, KW = cold water

A Cold prevention

To strengthen the body, we recommend you finish off with a cold shower; this will trigger a reflex in the body to warm



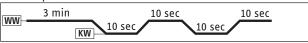
B Winter pick-me-up

An invigorating end to a winter shower with a final warm-



C Summer fitness program

The quick contrast shower to increase fitness with a final warm-up.



### D Circulation program

Shower your arms and legs with cold water to boost circulation. Spray from the hands and feet towards the body. You can then repeat this process with warm



#### 4 Automatic water volume control

The automatic water volume control allows you to limit the volume of water at a high flow rate. When the selected volume of water is reached, the control automatically reduces the flow rate. The preferred water temperature is maintained. The automatic water volume control must be enabled on each occasion prior to filling the bath. Example of filling a bath with 80 litres: When the bath has been filled with 80 litres, the control automatically reduces the flow rate to 4 l/min.

#### 5 Flow rate

You have the option of displaying the flow rate or the time.

#### 6 Setting the time

You have the option of displaying the time or the flow rate. You can set a time from 00:00 h to 23:59 h. You will need to set the time again following a power interruption.

#### 7 Adjusting the backlighting

You are able to adjust the display backlighting. If you select "Auto" the illumination will flash during the setting process.

- The backlighting switches on whenever the appliance heats and with any operation of the user interface.
- If there is no operation for 30 seconds the backlighting switches off.
- If you select "On" the backlighting will remain on constantly.

#### 8 Adjusting the green/amber brightness

You can adjust the brightness of both backlighting colours individually.

#### 9 Selecting the currency

Here you can select the currency you wish to display for the energy and water saving:

Eur = €

cur = any other currency

#### 10 Setting the electricity tariff

Here you can enter your particular electricity tariff in Eur/kWh or cur/kWh in order to calculate the energy saving.

#### 11 Setting the water tariff

Here you can enter your particular water tariff in €/m³ or cur/m³ in order to calculate the water saving.

#### 12 Setting the CO2 emissions value

The factory default for the CO2 emissions calculation is 553 g CO2/kWh (source: "Reducing energy consumption and CO2 emissions through electrical domestic hot water supply", 2011). You can also set your own CO2 emissions value if required.

#### 13 Resetting to factory defaults

Press keys M and i simultaneously for 2 seconds.

The default settings can be found in the dashed box in the diagram.

#### 14 Menüpunkt

This parameter is not relevant to this version of the appliance. It is not possible to adjust any settings.

#### 15 Menüpunkt

This parameter is not relevant to this version of the appliance. It is not possible to adjust any settings.

# Cleaning, care and maintenance

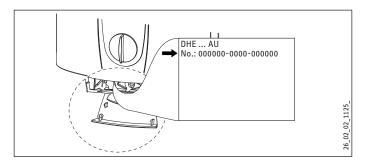
# 5. Cleaning, care and maintenance

- ► Never use abrasive or corrosive cleaning agents. A damp cloth is sufficient for cleaning the appliance.
- ► Check the taps regularly. Limescale deposits at the spouts can be removed using commercially available descaling agents.

# 6. Troubleshooting

- 1.	•	- 1
Fault	Cause	Remedy
The appliance will not start despite the DHW valve being fully open.	There is no mains voltage.	Check the fuse/MCB in your fuse box/distribution panel.
	The aerator in the tap or the shower head is scaled up or contaminated.	Clean and/or descale the aerator or shower head.
	The water supply has been interrupted.	Vent the appliance and the cold water inlet line (see chapter "Commis- sioning / Restarting").
Cold water flows briefly while hot water is being drawn.	The air sensor detects air in the water and briefly switches the heater off.	The appliance restarts automatically after 1 minute.
Temperatures > 43 °C.	Dynamic anti-scalding protection is activated.	Dynamic anti-scalding protection automatically ceases 2 minutes after draw-off has ended.

If you cannot remedy the fault, notify your qualified contractor. To facilitate and speed up your enquiry, please provide the serial number from the type plate (000000-00000-000000):



#### **7**. Safety

Only a qualified contractor should carry out installation, commissioning, maintenance and repair of the appliance.

#### **General safety instructions** 7.1

We guarantee trouble-free function and operational reliability only if the original accessories and spare parts intended for the appliance are used.



#### **Material losses**

Observe the maximum inlet temperature. Higher temperatures may damage the appliance. You can limit the maximum inlet temperature by installing a central thermostatic valve.

#### 7.2 Instructions, standards and regulations



#### Note

Observe all applicable national and regional regulations and instructions.

- The protection rating IP 25 (hoseproof) can only be ensured with a correctly fitted cable grommet.
- The specific electrical resistance of the water must not fall below that stated on the type plate. In a linked water network, observe the lowest electrical water resistance (see chapter "Specification / Application areas"). Your water supply utility will advise you of the specific electrical water resistance or conductivity.

#### Appliance description 8.

### Standard delivery

The following are delivered with the appliance:

- Mounting bracket
- Installation template
- 2 plugs
- 2 extensions
- 2 caps
- 2 tees
- 8 flat gaskets
- Strainer
- Plastic profile washer
- Plastic connection pieces / installation aid
- Cover and back panel guides

## **Preparations**

Flush the water line thoroughly.

#### Taps/valves

▶ Use appropriate pressure-tested taps. Open taps are not permitted.

A safety valve is not required.

#### Permissible water pipe materials

- Cold water inlet pipe: Galvanised steel pipe, stainless steel pipe, copper pipe or plastic pipe
- DHW outlet pipe: Stainless steel pipe, copper pipe or plastic pipe



#### **Material losses**

If plastic pipework systems are used, take into account the maximum inlet temperature and the maximum pressure (see chapter "Specification / Data table").

#### Flow rate

- ► Ensure that the flow rate (see chapter "Specification / Data table", On) for switching on the appliance is achieved.
- ► Increase the mains water pressure if the required flow rate is not achieved with the draw-off valve fully opened.

### Flexible water connection lines

- ▶ If the appliance is installed with flexible water connection lines, ensure that the pipe bends do not become twisted. Pipe bends have a bayonet fitting and are installed inside the appliance.
- Secure the back panel with an additional screw at the bottom.

#### Installation site 9.1



### **Material losses**

Only install the appliance in rooms free from the risk of frost.

Always install the appliance vertically near the draw-off point.

The appliance is suitable for undersink and oversink installations.



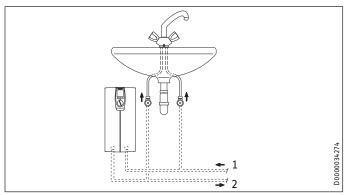
#### 1 Note

Note

Mount the appliance on a sufficiently load-bearing wall.

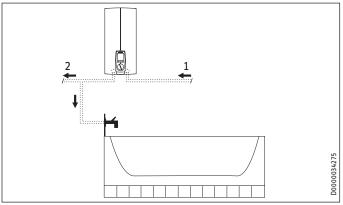
## Installation

#### **Undersink** installation



- 1 Cold water inlet
- 2 DHW outlet

#### **Oversink installation**



- 1 Cold water inlet
- 2 DHW outlet

### 10. Installation

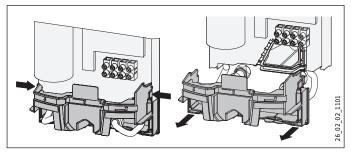
#### 10.1 Standard installation

- Electrical connection in the lower section of the appliance for installation on unfinished walls
- Water connection for installation on finished walls

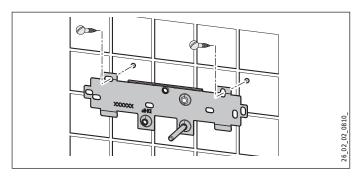
For further installation options, see chapter "Installation options".



► Open the appliance.



► Remove the back panel by pressing the two locking hooks and pulling the lower part of the back panel forwards.

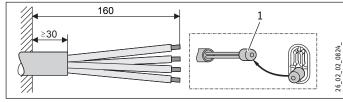


► Mount the wall mounting bracket.

Align the installation template based on the existing electrical connection when marking out the drill holes (wall mounting and lower back panel).

If you want to adapt the existing water connections, take the dimensions from the drawing when marking out the drill holes; see chapter "Specification/ Dimensions and connections". In this case, check beforehand that the electrical connection lies within one of the areas marked on the installation template.

▶ Drill the holes and secure the mounting bracket with 2 screws and 2 rawl plugs (screws and rawl plugs are not part of the standard delivery).



- 1 Installation aid
- ► Prepare the power cable.

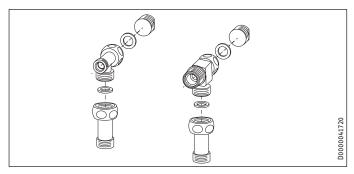
#### Preparing the water connection



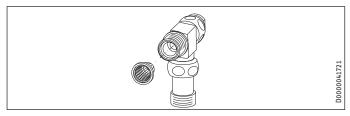
### **Material losses**

Carry out all water connection and installation work in accordance with regulations.

## Installation



- ► Remove the caps from the tees.
- Fit the plugs and the extensions with gaskets.



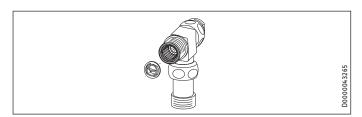
▶ Fit the strainer in the tee for the cold water inlet.



#### Damage to the appliance and environment

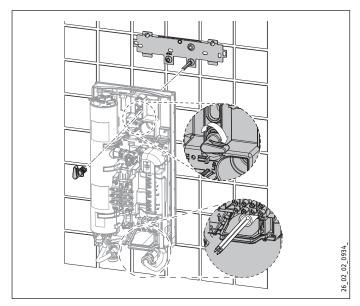
The strainer must be fitted for the appliance to function.

► When replacing the appliance, check that the strainer is present.



Fit the plastic profile washer.

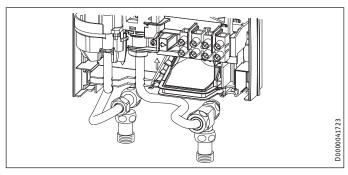
#### Installing the appliance



► For easy installation, push the cable grommet of the upper electrical connection into the back panel from behind.

- ▶ Remove the transport plugs from the water connections.
- Remove the fixing toggle from the upper part of the back panel.
- ► Route the power cable through the lower cable grommet from behind, until the power cable rests against the cable sheath. Align the power cable.

  If the cross-section is > 6 mm² enlarge the hole in the cab
  - If the cross-section is > 6 mm<sup>2</sup>, enlarge the hole in the cable grommet.
- Press the appliance over the threaded stud of the wall mounting bracket. When doing so, push through the soft seal in the back panel of the appliance. If necessary, use a screwdriver.
- Push the fixing toggle on to the threaded stud of the wall mounting bracket.
- ► Push the back panel of the appliance on to the wall. Turn the fixing toggle 90° clockwise to lock the appliance in place.



- ► Screw the pre-assembled parts with flat gaskets to the cold water and DHW pipes of the appliance.
- ► Fit the cold water inlet pipe and the DHW outlet pipe from the pipework with flat gaskets to the extensions from the appliance.

#### Making the electrical connection



#### **WARNING Electrocution**

Carry out all electrical connection and installation work in accordance with relevant regulations.



#### **WARNING Electrocution**

Connection to the power supply is only permissible in the form of a permanent connection in conjunction with the removable cable grommet. Ensure the appliance can be separated from the power supply by an isolator that disconnects all poles with at least 3 mm contact separation.



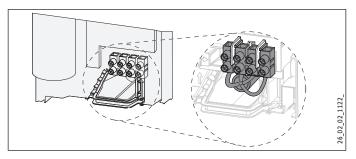
#### WARNING Electrocution Ensure that the appliance is earthed.



#### Damage to the appliance and environment

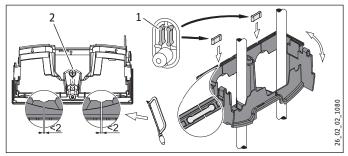
Observe the type plate. The specified voltage must match the mains voltage.

## Installation



Connect the power cable to the mains terminal (see chapter "Specification / Wiring diagram"). The specified voltage must match the mains voltage.

#### Lower back panel installation

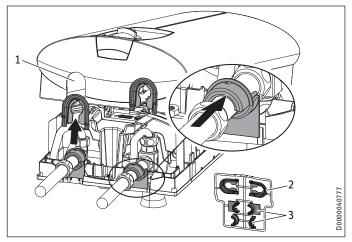


- 1 Connection pieces delivered in the pack
- 2 Screw
- ► Cut open the lower part of the back panel (see illustration).
- ► Fit the lower back panel by bending it out at the sides and guiding it over the pipes.
- ► Insert the connection pieces into the lower back panel from behind.
- ► Click the lower back panel into place.
- ► Align the mounted appliance by loosening the fixing toggle, aligning the power supply and back panel, and then re-tightening the fixing toggle.
- Secure the lower back panel with a screw.

### 10.2 Completing the installation

▶ Open the shut-off valve in the cold water inlet line.

#### Fitting the sealing elements for the appliance cover



- L Pipe aperture
- 2 Cover guides
- 3 Back panel guides



#### **Material losses**

If you cut open the wrong knock-out in the appliance cover by mistake, you must use a new appliance cover.

► Cleanly cut or break out the knock-out openings in the appliance cover. If necessary, use a file.



#### Note

You can compensate for a slight connection pipe offset using the tabs on the cover guides. If the connection pipes are offset, do not fit any back panel guides.

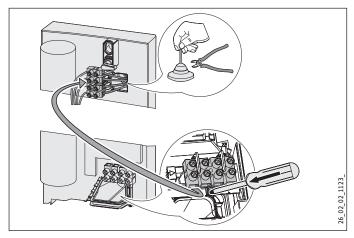
- ► When installing connection pipes that are not offset, break off the tabs on the cover guides.
- ► Click the cover guides into place in the pipe apertures.
- ► Position the back panel guides on the extensions. Push them together. Then push the guides until they are resting against the back panel.

## Installation

#### 10.3 Installation options

- Electrical connection from above on unfinished walls
- Electrical connection for finished walls
- Large cross-section for electrical connection from below
- Water installation on unfinished walls
- Wall mounting bracket when replacing an appliance
- Installation with offset tiles
- Pivoting appliance cover
- Operation with preheated water

#### Electrical connection from above on unfinished walls



- ► Cut open the cable grommet for the power cable.
- ► Push down the locking hook to secure the mains terminal. Pull out the mains terminal.
- ► Reposition the mains terminal in the appliance from the bottom to the top and secure the mains terminal by sliding it under the locking hook.
- ► Lay the control wires below the wire guide.

#### **Electrical connection for finished walls**



#### **Material losses**

If you cut open the wrong knock-out in the appliance cover by mistake, you must use a new appliance cover.

- ► Cut or break out the required entries in the back panel and appliance cover cleanly (for positions, see chapter "Specification / Dimensions and connections"). If necessary, use a file.
- ► Route the power cable through the cable grommet. Connect the power cable to the mains terminal.



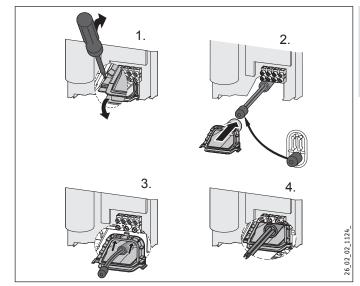
#### Note

This type of connection changes the protection rating of the appliance.

► Change the type plate. Cross out "IP 25" and mark the box "IP 24". Please use a ballpoint pen to do this.

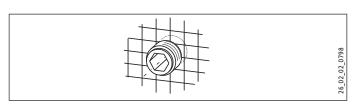
### Large cross-section for electrical connection from below

If you use cables with a large cross-section, you can fit the cable grommet after the appliance has been installed.

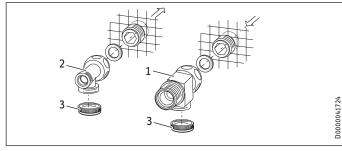


- ► Before installing the appliance, use a screwdriver to push out the cable grommet.
- ► Slide the cable grommet over the power cable. For this, use the installation aid. If the cross-section is > 6 mm², enlarge the hole in the cable grommet.
- ▶ Push the cable grommet into the back panel.

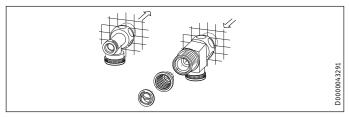
#### Water installation on unfinished walls



 Seal and screw in the twin connectors (not included in standard delivery).



- 1 Tee for cold water
- 2 Tee for domestic hot water
- 3 Cover
- ► Fit the water connections.



► Fit the strainer and the plastic profile washer in the tee for the cold water inlet.

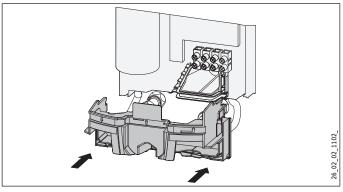
## Installation



#### Damage to the appliance and environment

The strainer must be fitted for the appliance to function.

- ► When replacing the appliance, check that the strainer is present.
- Screw the connection pipes from the appliance with flat gaskets to the tee.
- ▶ Open the shut-off valve in the cold water inlet line.



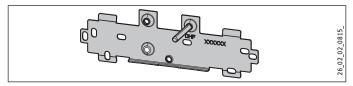
- ► Fit the lower part of the back panel. Ensure that it clicks into place.
- ▶ Align the mounted appliance by loosening the fixing toggle, aligning the power supply and back panel, and then re-tightening the fixing toggle. If the back panel of the appliance is not flush, the appliance can be secured at the bottom with an additional screw.

### Wall mounting bracket when replacing an appliance

When replacing an appliance, you can use an existing wall mounting bracket of a Stiebel Eltron appliance (except for a DHF instantaneous water heater).

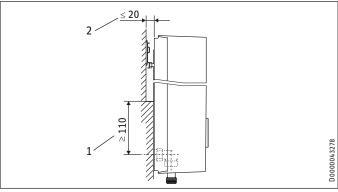
▶ Press the appliance over the threaded stud of the existing wall mounting bracket. When doing so, push through the soft seal in the back panel of the appliance. If necessary, use a screwdriver.

#### DHF replacement



- ► Remove the DHF wall mounting bracket.
- ► Take the new wall mounting bracket and move the threaded stud to the position marked with DHF (the stud has a self-tapping thread).
- ► Rotate the wall mounting bracket 180° and mount it on the wall. Use the existing drill holes.

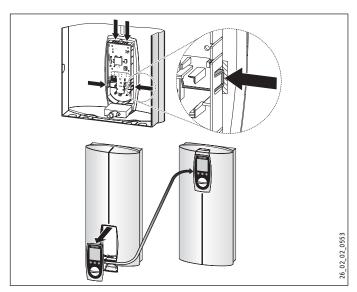
#### Installation with offset tiles



- 1 Minimum contact area of the appliance
- 2 Maximum tile offset
- ► Adjust the wall clearance. Lock the back panel with the fixing toggle by turning it 90° clockwise.

#### Pivoting appliance cover

The appliance cover can be turned for undersink installation.



- ► Remove the programming unit from the appliance cover by pressing the locking hooks and taking out the programming unit.
- ▶ Turn the appliance cover (not the appliance) and refit the programming unit, ensuring that all locking hooks click into place. When clicking the locking hooks into place, make sure you press against the inner side of the appliance cover (shaded area).
- ► Plug the set value transducer cable into the PCB (see chapter "Commissioning / Initial start-up").
- ► Hook the appliance cover back in at the bottom and pivot it up onto the back panel.
- ► Ensure the all-round seal of the back panel is firmly seated by pushing the appliance cover gently forwards and back.
- ► Secure the appliance cover.

#### Operation with preheated water

You can limit the maximum inlet temperature by installing a central thermostatic valve.

## Commissioning

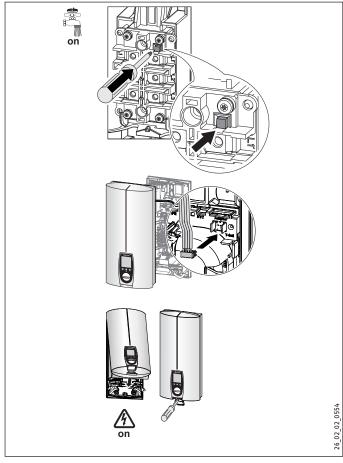
## 11. Commissioning



**WARNING Electrocution** 

Commissioning may only be carried out by a qualified contractor in accordance with safety regulations.

## 11.1 Initial start-up



- ► Open and close all connected draw-off valves several times, until all air has been vented from the pipework and the appliance.
- ► Carry out a tightness check.
- ► Activate the safety switch (AE 3) by firmly pressing the reset button (the appliance is delivered with the safety switch deactivated).
- ▶ Push the set value transducer cable plug onto the PCB.
- ▶ Fit the appliance cover and secure it with the screw.
- ► Switch the mains power ON.
- ► Check the function of the appliance.
- ▶ Remove the protective foil from the control fascia.

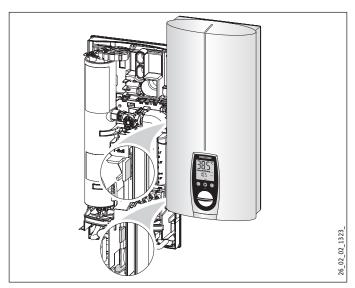
#### **Appliance handover**

- Explain the appliance function to users and familiarise them with its operation.
- Make users aware of potential dangers, especially the risk of scalding.
- ► Hand over these instructions.

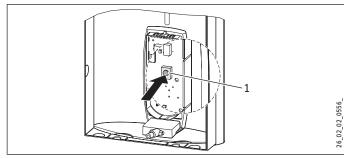
### 11.2 Recommissioning

See chapter "Settings and displays / Following an interruption to the water supply"

## 12. Service mode



► Open the appliance cover and hook it on the side of the back panel.



1 Service button for activating and deactivating service mode

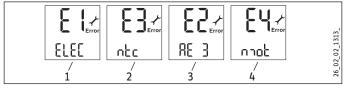
Key to	symbols	
	Press once	START
	Press once	END
$\overline{\mathbb{Q}}$	Change settings / scanning	

In service mode you are able to call up and / or change the set temperature using the M key (60 °C).

## Shutting down the system

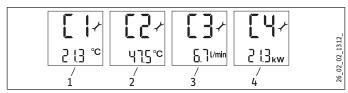
#### Scanning the error menu

The error menu only appears if the appliance has a fault.



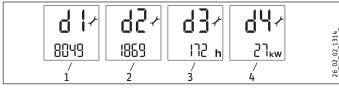
- 1 Electronic assembly symbol
- ► Replace the electronic assembly.
- 2 Safety circuit symbol
- ► Check the AE 3 connection; replace the AE 3 if required.
- 3 Outlet sensor symbol
- Check the outlet sensor connection; replace the outlet sensor if required.
- 4 Motorised valve symbol
- ► Check the motorised valve connection; replace the motorised valve if required.

#### Scanning the control menu



- 1 Inlet temperature symbol, shows the current inlet temperature (shows 1.0 °C if the sensor is faulty).
- 2 Outlet temperature symbol, shows the current outlet temperature (shows 65.0 °C if the sensor is faulty).
- 3 Flow rate symbol, shows the current flow rate.
- 4 Power consumption symbol, shows the current power consumption.

### Scanning the appliance data menu



- 1 Service code symbol, information for service engineers.
- 2 Symbol for power supply runtime, accumulated runtime in days.
- 3 Heating hours symbol, accumulated heating time in hours.
- 4 Maximum output symbol
  The value shown may diverge by several kW from the rated
  output if mains voltages other than 400 V prevail.

#### Setting the anti-scalding protection

Use this anti-scalding protection in such places as nurseries and hospitals. The temperature set here is also the upper limit for the childproofing temperature setting (see chapter "Appliance settings").



Setting range: 21 - 60 °C

Recommended setting 43 °C



#### Note

The anti-scalding protection setting can only be modified by a qualified contractor. Simultaneously pressing the M + i key will not change the setting.

## 13. Shutting down the system

- ▶ Isolate all poles of the appliance from the power supply.
- ▶ Drain the appliance (see chapter "Maintenance").

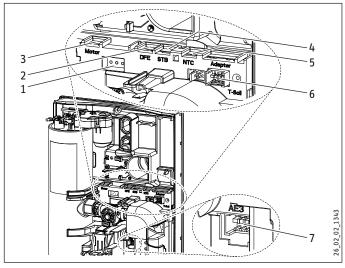
## 14. Troubleshooting



**WARNING Electrocution** 

In order to check the appliance it must be connected to the power supply.

#### Push-fit connections on the PCB



- 1 Diagnostic traffic light (3 LEDs)
- 2 Flow sensor DFE
- 3 Motorised valve
- 4 High limit safety cut-out STB
- 5 Outlet sensor NTC
- 6 Set value transducer
- 7 Safety switch AE 3; plug-in connection secured with locking tab.

# Troubleshooting

Management   Man	Possible indicatio	ns of diagnostic traffic lig	ght (LED)				
Fault  Cause  Flashing: Appliance is supplied with mains power  The appliance does not heating river is no mains voltage.  The afety switch (AE 3) has responded.  The safety switch (AE 3) has responded.  The pPCB is faulty.  A phase has failed.  The PCB is faulty.  The inlet temperature is possibly the safety switch by pressing the pushbutton on the safety switch observed to chapter *Commissioning / Initial startury.  The inlet temperature is possibly the safety switch by pressing the pushbutton on the safety switch observed to chapter *Commissioning / Initial startury.  The inlet temperature is possibly.  The heating system is faulty.  The heating system is faulty.  The inlet sensor is faulty.  The safety switch observed is safety switch observed is faulty.  The favor and is the safety switch observed is faulty.  Chiddren observed is faulty.  The safety switch observed is fault	•00	Red	Illuminates in the eve	nt of a fault			
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The outlet sensor is faulty.   Flashing green LED, red LED on		The heating system is faulty.	0.0	Check the heating system and replace if necessary.			
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A loose or faulty connecting cable to the set value transducer in gable.   Connect the connecting cable from the set value transducer and check the connecting cable.		The outlet sensor is faulty.	0 0	Check the connection of the outlet sensor and replace if necessary.			
Cable to the set value transducer is faulty.   Childproofing and/or temperature limiting is activated.   Check the set value transducer and replace it if required.		A fault in the safety PCB.	red LED only during	Connect the connecting cable from the safety switch and check the safety switch.			
Faulty.   Childproofing and/or temperature limiting is activated.   Disable temperature limiting.		cable to the set value trans-	Green LED flashes				
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The shower head / aerators are scaled up.  The set value cannot be adjusted higher than 43 °C, nor can a different set temperature be selected.  Cold water flows briefly during draw-off.  The flow rate (< 2 l/min) is too low.  The set value cannot be adjusted higher than 43 °C, nor can a different set temperature be selected.  The flow rate (< 2 l/min) is too low.  The air sensor detects the presence of air in the water and		The programming PCB is faulty.	Green LED flashes	Check the programming unit and replace if necessary.			
The set value cannot be adjusted higher than 43 °C, nor can a different set temperature be selected.  Cold water flows briefly during draw-off.  The flow rate (< 2 l/min) is too low.  The air sensor detects the presence of air in the water and  The dynamic anti-scalding protection is deactivated again 2 minutes after draw-off.  The dynamic anti-scalding protection is deactivated again 2 minutes after draw-off.  The dynamic anti-scalding protection is deactivated again 2 minutes after draw-off.  The dynamic anti-scalding protection is deactivated again 2 minutes after draw-off.  The appliance restarts automatically when a flow rate of > 2.5 l/min has been detected.  The appliance restarts after one minute.				Descale or if necessary replace the shower head / aerators.			
be adjusted higher than 43 °C, nor can a different set temperature be selected.  Cold water flows briefly during draw-off.  The flow rate (< 2 l/min) is too low.  The air sensor detects the presence of air in the water and  Tion is activated.  The appliance restarts automatically when a flow rate of > 2.5 l/min has been detected.  The appliance restarts after one minute.		The strainer is contaminated.		Clean the strainer.			
ly during draw-off. (< 2 l/min) is too low. tected.  The air sensor detects the presence of air in the water and tected.  The appliance restarts after one minute.	be adjusted higher than 43 °C, nor can a different set tempera-		Green LED flashes	The dynamic anti-scalding protection is deactivated again 2 minutes after draw-off.			
presence of air in the water and							
		presence of air in the water and		The appliance restarts after one minute.			

## Maintenance

## 15. Maintenance



**WARNING Electrocution** 

Before any work on the appliance, disconnect all poles from the power supply.

### **Draining the appliance**

You can drain the appliance for maintenance work.

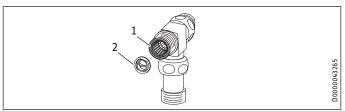


CAUTION Scalding
Hot water may escape when draining the appliance.

- ► Close the shut-off valve in the cold water inlet line.
- ► Open all draw-off valves.
- ▶ Undo the water connections on the appliance.
- Store the dismantled appliance in a room free from the risk of frost, as water residues remaining inside the appliance can freeze and cause damage.

#### Cleaning the strainer

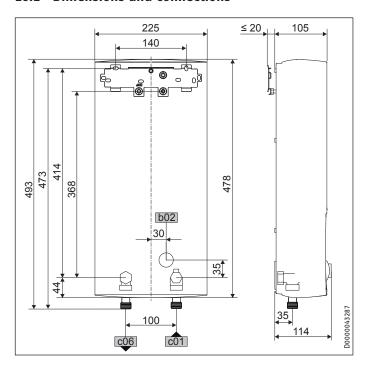
A strainer is located in the tee from the cold water inlet pipe. In case of contamination, you can remove this strainer and clean it.



- 1 Strainer
- 2 Plastic profile washer
- ► Remove the plastic profile washer.
- ► Remove the strainer and clean the components.
- Fit the strainer and the plastic profile washer.

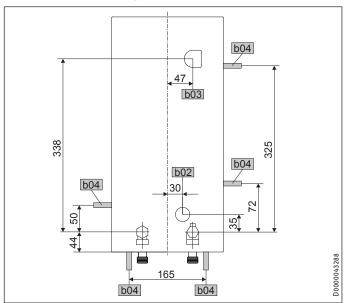
## 16. Specification

### 16.1 Dimensions and connections



b02	Entry electrical cables I		
c01	Cold water inlet	Male thread	G 1/2 A
c06	DHW outlet	Male thread	G 1/2 A

#### **Alternative connection options**

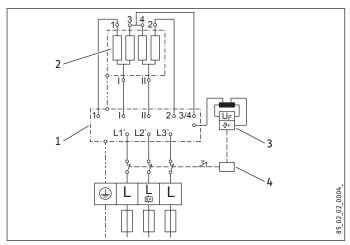


b02	Entry electrical cables I	 
b03	Entry electrical cables II	
b04	Entry electrical cables III	

# **Specification**

## 16.2 Wiring diagram

#### 3/PE ~ 380-415 V



- 1 Power PCB
- 2 Bare wire heating system
- 3 High limit safety cut-out
- 4 Safety switch

### 16.3 DHW output

DHW output is subject to the mains voltage, the appliance's connected load and the cold water inlet temperature. The rated voltage and rated output can be found on the type plate (see chapter "Troubleshooting").

Connected load in kW 38 °C DHW output in l/min.							
Rated volta	ge		Cold water	inlet tempe	rature		
380 V	400 V	415 V	5 °C	10 °C	15 °C	20 °C	
10.1			4.4	5.2	6.3	8.0	
	11.0		4.8	5.6	6.8	8.7	
12.0			5.2	6.1	7.5	9.5	
12.2			5.3	6.2	7.6	9.7	
	13.2		5.7	6.7	8.2	10.5	
	13.5		5.8	6.9	8.4	10.7	
13.6			5.9	6.9	8.4	10.8	
		14.2	6.1	7.2	8.8	11.3	
		14.5	6.3	7.4	9.0	11.5	
	15.0		6.5	7.7	9.3	11.9	
16.2		16.2	7.0	8.3	10.1	12.9	
16.3			7.1	8.3	10.1	12.9	
	18.0		7.8	9.2	11.2	14.3	
19.0			8.2	9.7	11.8	15.1	
		19.4	8.4	9.9	12.0	15.4	
	21.0		9.1	10.7	13.0	16.7	
21.7			9.4	11.1	13.5	17.2	
		22.6	9.8	11.5	14.0	17.9	
23.5			10.2	12.0	14.6	18.7	
	24.0		10.4	12.2	14.9	19.0	
24.4			10.6	12.4	15.2	19.4	
		25.8	11.2	13.2	16.0	20.5	
	26.0		11.3	13.3	16.1	20.6	
	27.0		11.7	13.8	16.8	21.4	
		28.0	12.1	14.3	17.4	22.2	
		29.1	12.6	14.8	18.1	23.1	

10.1       3.2       3.6       4.1       4.8         11.0       3.5       3.9       4.5       5.2         12.0       3.8       4.3       4.9       5.7         12.2       3.9       4.4       5.0       5.8         13.2       4.2       4.7       5.4       6.3         13.5       4.3       4.8       5.5       6.4         13.6       4.3       4.9       5.6       6.5         13.6       4.3       4.9       5.6       6.5         14.2       4.5       5.1       5.8       6.8         14.5       4.6       5.2       5.9       6.9         15.0       4.8       5.4       6.1       7.1         16.2       16.2       5.1       5.8       6.6       7.7         16.3       5.2       5.8       6.7       7.8         16.3       5.2       5.8       6.7       7.8         19.0       6.0       6.8       7.8       9.0         19.0       6.0       6.8       7.8       9.0         21.7       6.9       7.5       8.6       10.0         21.7       6.9	Connected	d load in	kW	50 °C DHW	l output i	n l/min.	
10.1       3.2       3.6       4.1       4.8         11.0       3.5       3.9       4.5       5.2         12.0       3.8       4.3       4.9       5.7         12.2       3.9       4.4       5.0       5.8         13.2       4.2       4.7       5.4       6.3         13.5       4.3       4.8       5.5       6.4         13.6       4.3       4.9       5.6       6.5         14.2       4.5       5.1       5.8       6.8         14.5       4.6       5.2       5.9       6.9         15.0       4.8       5.4       6.1       7.1         16.2       16.2       5.1       5.8       6.6       7.7         16.3       5.2       5.8       6.7       7.8         16.3       5.2       5.8       6.7       7.8         19.0       6.0       6.8       7.8       9.0         19.0       6.0       6.8       7.8       9.0         21.0       6.7       7.5       8.6       10.0         21.7       6.9       7.8       8.9       10.3         22.6       7.2 <td< td=""><td>Rated voltag</td><td>ge</td><td></td><td>Cold water</td><td>inlet tempe</td><td>rature</td><td></td></td<>	Rated voltag	ge		Cold water	inlet tempe	rature	
11.0       3.5       3.9       4.5       5.2         12.0       3.8       4.3       4.9       5.7         12.2       3.9       4.4       5.0       5.8         13.2       4.2       4.7       5.4       6.3         13.5       4.3       4.8       5.5       6.4         13.6       4.3       4.9       5.6       6.5         14.2       4.5       5.1       5.8       6.8         14.5       4.6       5.2       5.9       6.9         15.0       4.8       5.4       6.1       7.1         16.2       16.2       5.1       5.8       6.6       7.7         16.3       5.2       5.8       6.6       7.7         16.3       5.2       5.8       6.7       7.8         19.0       6.0       6.8       7.8       9.0         19.0       6.0       6.8       7.8       9.0         21.0       6.7       7.5       8.6       10.0         21.7       6.9       7.8       8.9       10.3         23.5       7.5       8.4       9.6       11.2         24.4       7.7 <t< td=""><td>380 V</td><td>400 V</td><td>415 V</td><td>5 °C</td><td>10 °C</td><td>15 °C</td><td>20 °C</td></t<>	380 V	400 V	415 V	5 °C	10 °C	15 °C	20 °C
12.0       3.8       4.3       4.9       5.7         12.2       3.9       4.4       5.0       5.8         13.2       4.2       4.7       5.4       6.3         13.5       4.3       4.8       5.5       6.4         13.6       4.3       4.9       5.6       6.5         14.2       4.5       5.1       5.8       6.8         14.5       4.6       5.2       5.9       6.9         15.0       4.8       5.4       6.1       7.1         16.2       16.2       5.1       5.8       6.6       7.7         16.3       5.2       5.8       6.7       7.8         19.0       6.0       6.8       7.8       9.0         19.0       6.0       6.8       7.8       9.0         19.4       6.2       6.9       7.9       9.2         21.0       6.7       7.5       8.6       10.0         21.7       6.9       7.8       8.9       10.3         23.5       7.5       8.4       9.6       11.2         24.4       7.7       8.7       10.0       11.6         24.4       7.7	10.1			3.2	3.6	4.1	4.8
12.2       3.9       4.4       5.0       5.8         13.2       4.2       4.7       5.4       6.3         13.5       4.3       4.8       5.5       6.4         13.6       4.3       4.9       5.6       6.5         14.2       4.5       5.1       5.8       6.8         14.5       4.6       5.2       5.9       6.9         15.0       4.8       5.4       6.1       7.1         16.2       16.2       5.1       5.8       6.6       7.7         16.3       5.2       5.8       6.7       7.8         16.3       5.2       5.8       6.7       7.8         19.0       6.0       6.8       7.8       9.0         19.0       6.0       6.8       7.8       9.0         19.4       6.2       6.9       7.9       9.2         21.0       6.7       7.5       8.6       10.0         21.7       6.9       7.8       8.9       10.3         23.5       7.5       8.4       9.6       11.2         24.4       7.7       8.7       10.0       11.6         24.4       7.7		11.0		3.5	3.9	4.5	5.2
13.2       4.2       4.7       5.4       6.3         13.5       4.3       4.8       5.5       6.4         13.6       4.3       4.9       5.6       6.5         14.2       4.5       5.1       5.8       6.8         14.5       4.6       5.2       5.9       6.9         15.0       4.8       5.4       6.1       7.1         16.2       16.2       5.1       5.8       6.6       7.7         16.3       5.2       5.8       6.7       7.8         19.0       6.0       6.8       7.8       9.0         19.0       6.0       6.8       7.8       9.0         19.4       6.2       6.9       7.9       9.2         21.0       6.7       7.5       8.6       10.0         21.7       6.9       7.8       8.9       10.3         23.5       7.5       8.4       9.6       11.2         24.0       7.6       8.6       9.8       11.4         24.4       7.7       8.7       10.0       11.6         25.8       8.2       9.2       10.5       12.3         26.0       8.3	12.0			3.8	4.3	4.9	5.7
13.5       4.3       4.8       5.5       6.4         13.6       4.3       4.9       5.6       6.5         14.2       4.5       5.1       5.8       6.8         14.5       4.6       5.2       5.9       6.9         15.0       4.8       5.4       6.1       7.1         16.2       16.2       5.1       5.8       6.6       7.7         16.3       5.2       5.8       6.7       7.8         16.3       5.7       6.4       7.3       8.6         19.0       6.0       6.8       7.8       9.0         19.0       6.0       6.8       7.8       9.0         21.0       6.7       7.5       8.6       10.0         21.7       6.9       7.8       8.9       10.3         21.7       6.9       7.8       8.9       10.3         23.5       7.5       8.4       9.6       11.2         24.0       7.6       8.6       9.8       11.4         24.4       7.7       8.7       10.0       11.6         25.8       8.2       9.2       10.5       12.3         26.0       8.3	12.2			3.9	4.4	5.0	5.8
13.6         4.3         4.9         5.6         6.5           14.2         4.5         5.1         5.8         6.8           14.5         4.6         5.2         5.9         6.9           15.0         4.8         5.4         6.1         7.1           16.2         16.2         5.1         5.8         6.6         7.7           16.3         5.2         5.8         6.7         7.8           19.0         6.0         6.8         7.8         9.0           19.0         6.0         6.8         7.8         9.0           21.0         6.7         7.5         8.6         10.0           21.7         6.9         7.8         8.9         10.3           21.7         6.9         7.8         8.9         10.3           23.5         7.5         8.4         9.6         11.2           24.0         7.6         8.6         9.8         11.4           24.4         7.7         8.7         10.0         11.6           25.8         8.2         9.2         10.5         12.3           26.0         8.3         9.3         10.6         12.4		13.2		4.2	4.7	5.4	6.3
14.2         4.5         5.1         5.8         6.8           14.5         4.6         5.2         5.9         6.9           15.0         4.8         5.4         6.1         7.1           16.2         16.2         5.1         5.8         6.6         7.7           16.3         5.2         5.8         6.7         7.8           19.0         6.0         6.8         7.8         9.0           19.4         6.2         6.9         7.9         9.2           21.0         6.7         7.5         8.6         10.0           21.7         6.9         7.8         8.9         10.3           23.5         7.2         8.1         9.2         10.8           23.5         7.5         8.4         9.6         11.2           24.0         7.6         8.6         9.8         11.4           24.4         7.7         8.7         10.0         11.6           25.8         8.2         9.2         10.5         12.3           26.0         8.3         9.3         10.6         12.4           27.0         8.6         9.6         11.0         12.9		13.5		4.3	4.8	5.5	6.4
14.5     4.6     5.2     5.9     6.9       15.0     4.8     5.4     6.1     7.1       16.2     16.2     5.1     5.8     6.6     7.7       16.3     5.2     5.8     6.7     7.8       18.0     5.7     6.4     7.3     8.6       19.0     6.0     6.8     7.8     9.0       19.4     6.2     6.9     7.9     9.2       21.7     6.9     7.8     8.9     10.3       21.7     6.9     7.8     8.9     10.3       23.5     7.5     8.4     9.6     11.2       24.4     7.6     8.6     9.8     11.4       24.4     7.7     8.7     10.0     11.6       25.8     8.2     9.2     10.5     12.3       26.0     8.3     9.3     10.6     12.4       27.0     8.6     9.6     11.0     12.9       28.0     8.9     10.0     11.4     13.3	13.6			4.3	4.9	5.6	6.5
15.0         4.8         5.4         6.1         7.1           16.2         16.2         5.1         5.8         6.6         7.7           16.3         5.2         5.8         6.7         7.8           18.0         5.7         6.4         7.3         8.6           19.0         6.0         6.8         7.8         9.0           21.0         6.7         7.5         8.6         10.0           21.7         6.9         7.8         8.9         10.3           21.7         22.6         7.2         8.1         9.2         10.8           23.5         7.5         8.4         9.6         11.2           24.0         7.6         8.6         9.8         11.4           24.4         7.7         8.7         10.0         11.6           25.8         8.2         9.2         10.5         12.3           26.0         8.3         9.3         10.6         12.4           27.0         8.6         9.6         11.0         12.9           28.0         8.9         10.0         11.4         13.3			14.2	4.5	5.1	5.8	6.8
16.2         16.2         5.1         5.8         6.6         7.7           16.3         5.2         5.8         6.7         7.8           18.0         5.7         6.4         7.3         8.6           19.0         6.0         6.8         7.8         9.0           21.0         6.7         7.5         8.6         10.0           21.7         6.9         7.8         8.9         10.3           21.7         22.6         7.2         8.1         9.2         10.8           23.5         7.5         8.4         9.6         11.2           24.0         7.6         8.6         9.8         11.4           24.4         7.7         8.7         10.0         11.6           25.8         8.2         9.2         10.5         12.3           26.0         8.3         9.3         10.6         12.4           27.0         8.6         9.6         11.0         12.9           28.0         8.9         10.0         11.4         13.3			14.5	4.6	5.2	5.9	6.9
16.3         5.2         5.8         6.7         7.8           18.0         5.7         6.4         7.3         8.6           19.0         6.0         6.8         7.8         9.0           19.4         6.2         6.9         7.9         9.2           21.0         6.7         7.5         8.6         10.0           21.7         6.9         7.8         8.9         10.3           23.5         7.2         8.1         9.2         10.8           23.5         7.5         8.4         9.6         11.2           24.0         7.6         8.6         9.8         11.4           24.4         7.7         8.7         10.0         11.6           25.8         8.2         9.2         10.5         12.3           26.0         8.3         9.3         10.6         12.4           27.0         8.6         9.6         11.0         12.9           28.0         8.9         10.0         11.4         13.3		15.0		4.8	5.4	6.1	7.1
18.0     5.7     6.4     7.3     8.6       19.0     6.0     6.8     7.8     9.0       19.4     6.2     6.9     7.9     9.2       21.0     6.7     7.5     8.6     10.0       21.7     6.9     7.8     8.9     10.3       23.5     7.2     8.1     9.2     10.8       24.0     7.6     8.6     9.8     11.4       24.4     7.7     8.7     10.0     11.6       25.8     8.2     9.2     10.5     12.3       26.0     8.3     9.3     10.6     12.4       27.0     8.6     9.6     11.0     12.9       28.0     8.9     10.0     11.4     13.3	16.2		16.2	5.1	5.8	6.6	7.7
19.0         6.0         6.8         7.8         9.0           19.4         6.2         6.9         7.9         9.2           21.0         6.7         7.5         8.6         10.0           21.7         6.9         7.8         8.9         10.3           23.5         7.2         8.1         9.2         10.8           23.5         7.5         8.4         9.6         11.2           24.0         7.6         8.6         9.8         11.4           24.4         7.7         8.7         10.0         11.6           25.8         8.2         9.2         10.5         12.3           26.0         8.3         9.3         10.6         12.4           27.0         8.6         9.6         11.0         12.9           28.0         8.9         10.0         11.4         13.3	16.3			5.2	5.8	6.7	7.8
19.4         6.2         6.9         7.9         9.2           21.0         6.7         7.5         8.6         10.0           21.7         6.9         7.8         8.9         10.3           22.6         7.2         8.1         9.2         10.8           23.5         7.5         8.4         9.6         11.2           24.0         7.6         8.6         9.8         11.4           24.4         7.7         8.7         10.0         11.6           25.8         8.2         9.2         10.5         12.3           26.0         8.3         9.3         10.6         12.4           27.0         8.6         9.6         11.0         12.9           28.0         8.9         10.0         11.4         13.3		18.0		5.7	6.4	7.3	8.6
21.0         6.7         7.5         8.6         10.0           21.7         6.9         7.8         8.9         10.3           22.6         7.2         8.1         9.2         10.8           23.5         7.5         8.4         9.6         11.2           24.0         7.6         8.6         9.8         11.4           24.4         7.7         8.7         10.0         11.6           25.8         8.2         9.2         10.5         12.3           26.0         8.3         9.3         10.6         12.4           27.0         8.6         9.6         11.0         12.9           28.0         8.9         10.0         11.4         13.3	19.0			6.0	6.8	7.8	9.0
21.7         6.9         7.8         8.9         10.3           22.6         7.2         8.1         9.2         10.8           23.5         7.5         8.4         9.6         11.2           24.0         7.6         8.6         9.8         11.4           24.4         7.7         8.7         10.0         11.6           25.8         8.2         9.2         10.5         12.3           26.0         8.3         9.3         10.6         12.4           27.0         8.6         9.6         11.0         12.9           28.0         8.9         10.0         11.4         13.3			19.4	6.2	6.9	7.9	9.2
23.5         7.2         8.1         9.2         10.8           24.0         7.5         8.4         9.6         11.2           24.4         7.6         8.6         9.8         11.4           24.4         7.7         8.7         10.0         11.6           25.8         8.2         9.2         10.5         12.3           26.0         8.3         9.3         10.6         12.4           27.0         8.6         9.6         11.0         12.9           28.0         8.9         10.0         11.4         13.3		21.0		6.7	7.5	8.6	10.0
23.5         7.5         8.4         9.6         11.2           24.0         7.6         8.6         9.8         11.4           24.4         7.7         8.7         10.0         11.6           25.8         8.2         9.2         10.5         12.3           26.0         8.3         9.3         10.6         12.4           27.0         8.6         9.6         11.0         12.9           28.0         8.9         10.0         11.4         13.3	21.7			6.9	7.8	8.9	10.3
24.0         7.6         8.6         9.8         11.4           24.4         7.7         8.7         10.0         11.6           25.8         8.2         9.2         10.5         12.3           26.0         8.3         9.3         10.6         12.4           27.0         8.6         9.6         11.0         12.9           28.0         8.9         10.0         11.4         13.3			22.6	7.2	8.1	9.2	10.8
24.4         7.7         8.7         10.0         11.6           25.8         8.2         9.2         10.5         12.3           26.0         8.3         9.3         10.6         12.4           27.0         8.6         9.6         11.0         12.9           28.0         8.9         10.0         11.4         13.3	23.5			7.5	8.4	9.6	11.2
25.8         8.2         9.2         10.5         12.3           26.0         8.3         9.3         10.6         12.4           27.0         8.6         9.6         11.0         12.9           28.0         8.9         10.0         11.4         13.3		24.0		7.6	8.6	9.8	11.4
26.0     8.3     9.3     10.6     12.4       27.0     8.6     9.6     11.0     12.9       28.0     8.9     10.0     11.4     13.3	24.4			7.7	8.7	10.0	11.6
27.0     8.6     9.6     11.0     12.9       28.0     8.9     10.0     11.4     13.3			25.8	8.2	9.2	10.5	12.3
28.0 8.9 10.0 11.4 13.3		26.0		8.3	9.3	10.6	12.4
		27.0		8.6	9.6	11.0	12.9
201 02 107 110 120			28.0	8.9	10.0	11.4	13.3
25.1 5.2 10.4 11.9 13.9			29.1	9.2	10.4	11.9	13.9

### 16.4 Application areas / conversion table

For the specific electrical resistance and specific electrical conductivity, see "Data table".

Standa cation at 15 °C	rd spec		20 °C			25 °C		
	Spec. cor ity σ ≤			Spec. cor ity σ ≤	nductiv-	Spec. resist- ance ρ≥	Spec. cor ity σ ≤	nductiv-
Ωcm	mS/m	μS/cm	Ωcm	mS/m	μS/cm	Ωcm	mS/m	μS/cm
900	111	1111	800	125	1250	735	136	1361
1000	100	1000	890	112	1124	815	123	1227
1100	91	909	970	103	1031	895	112	1117
1200	83	833	1070	93	935	985	102	1015
1300	77	769	1175	85	851	1072	93	933

## 16.5 Pressure drop

#### Taps/valves

Pressure drop at taps at flow rate of 10 l/min		
Mono lever mixer tap, approx.	MPa	0.04 - 0.08
Thermostatic valve, approx.	MPa	0.03 - 0.05
Hand shower, approx.	MPa	0.03 - 0.15

#### Sizing the pipework

In case of faults, loads up to 80  $^{\circ}\text{C}$  at a pressure of 1.2 MPa can occur temporarily in the installation.

# Specification

## 16.6 Fault conditions

In case of faults, loads up to 80  $^{\rm o}{\rm C}$  at a pressure of 1.2 MPa can occur temporarily in the installation.

### 16.7 Data table

Part				ı	DHE 18 AU		1	HE 27 AU
Rated voltage   V   380   400   415   380   400   415   415   416   415   416   415   416   415   416   415   416   415   416   415   416   415   416   415   416   415   416   415   416   415   416   415   4					233988			233989
Rated output	Electrical data							
Rated current	Rated voltage	V	380	400	415	380	400	415
Fuse/MCB rating   A   25   25   32   40   40   40   40   40   40   40   4	Rated output	kW	16.2	18	19.4	24.4	27	29.1
Phases         3JPE         3JPE           Frequency         Hz         50/60         50/60         50/6	Rated current	А	24.7	26	27	37.1	39	40.5
Frequency	Fuse/MCB rating	A	25	25	32	40	40	40
Max. mains impedance at 50 Hz         Ω         0.3         0.285         0.274         0.2         0.19         0.183           Max. mains impedance at 60Hz         Ω         0.36         0.342         0.00         900	Phases				3/PE			3/PE
Max. mains impedance at 60Hz         Ω         0.36         0.342           Specific resistance p₁₃ 2 (at θcold ≤55 °C)         Ω cm         900	Frequency	Hz	50/60	50/60	50/-	50/-	50/-	50/-
Specific resistance ρ₁₅ ≥ (at θcold ≤55 °C)         Ω cm         900 <td>Max. mains impedance at 50 Hz</td> <td>Ω</td> <td>0.3</td> <td>0.285</td> <td>0.274</td> <td>0.2</td> <td>0.19</td> <td>0.183</td>	Max. mains impedance at 50 Hz	Ω	0.3	0.285	0.274	0.2	0.19	0.183
Specific conductivity σ₁₅ ≤ (at θcold ≤55 °C)         μ S/cm         1111 <t< td=""><td>Max. mains impedance at 60Hz</td><td>Ω</td><td>0.36</td><td>0.342</td><td></td><td></td><td></td><td></td></t<>	Max. mains impedance at 60Hz	Ω	0.36	0.342				
Connections         G 1/2 A         G 1/2 A           Water connection         G 1/2 A         G 1/2 A           Asplication limits         Image: Pressure of the pr	Specific resistance ρ <sub>15</sub> ≥ (at θcold ≤55 °C)	Ωcm	900	900	900	900	900	900
Water connection         G 1/2 A           Application limits         C           Max. permissible pressure         MPa         1         1           Max. permissible pressure for reheating         °C         55         55           Values         C         65         65         65           Max. permissible inlet temperature         °C         65         65         65           On         I/min         > 2.5         > 2.5           Flow rate for pressure drop         I/min         5.2         7.7           Pressure drop at flow rate         MPa         0.04         0.1           DHW delivery         I/min         9.2         13.8           A9 on delivery         K         28         28           Hydraulic data         K         28         28           Hydraulic data         C         20         0.4         0.4           Versions         Versions         Versions         Versions         1	Specific conductivity $\sigma_{15} \le (at \vartheta cold \le 55 \degree C)$	μS/cm	1111	1111	1111	1111	1111	1111
Application limits         Max. permissible pressure         MPa         1         1           Max. inlet temperature for reheating         °C         55         55           Values         S           Max. permissible inlet temperature         °C         65         65           On         I/min         ≥ 2.5         ≥ 2.5           Flow rate for pressure drop         I/min         5.2         7.7           Pressure drop at flow rate         MPa         0.04         0.1           DHW delivery         I/min         9.2         13.8           Δθ on delivery         K         28         28           Hydraulic data         Nominal capacity         I         0.4         0.4           Nominal capacity         I         0.4         0.4           Versions         Temperature setting         °C         20-60         20-60           Safety category         I         1         1         1           Insulating block         Plastic         Plastic         Plastic           Heating system         Bare wire         Bare wire         Bare wire           Colour         white         white         white           IP rating         Plastic	Connections							
Max. permissible pressure         MPa         1         1           Max. inlet temperature for reheating         °C         55         55           Values         ***Color ***Co	Water connection				G 1/2 A			G 1/2 A
Max. inlet temperature for reheating         °C         55         55           Values         Secondary         Sec	Application limits							
Values         C         65         65           On         I/min         ≥ 2.5         ≥ 2.5           Flow rate for pressure drop         I/min         5.2         7.7           Pressure drop at flow rate         MPa         0.04         0.1           DHW delivery         I/min         9.2         13.8           Aθ on delivery         K         28         28           Hydraulic data         Versions         0.4         0.4           Versions         Temperature setting         °C         20-60         20-60           Safety category         1         1         1         1           Insulating block         Plastic         Plastic         Plastic           Cover and back panel         Plastic         Plastic         Plastic           Colour         white         white         white           IP rating         IP25         IP25           Dimensions         IP25         IP25           Dimensions         mm         478         478           Width         mm         225         225         225           Depth         mm         0.105         105           Weights         mm         <	Max. permissible pressure	MPa			1			1
Max. permissible inlet temperature         °C         65         65           On         I/min         > 2.5         > 2.5           Flow rate for pressure drop         I/min         5.2         7.7           Pressure drop at flow rate         MPa         0.04         0.1           DHW delivery         I/min         9.2         13.8           Δθ on delivery         K         28         28           Hydraulic data         Versions         0.4         0.4           Versions         Versions         0.4         0.4           Safety category         1         0.4         0.4           Insulating block         Plastic         Plastic           Heating system         Bare wire         Bare wire           Cover and back panel         Plastic         Plastic           Colour         white         white           IP rating         1P25         1P25           Dimensions         IP25         1P25           Dimensions         mm         478         478           Width         mm         225         225           Depth         mm         105         105           Weights	Max. inlet temperature for reheating	°C			55			55
On         I/min         > 2.5         > 2.5           Flow rate for pressure drop         I/min         5.2         7.7           Pressure drop at flow rate         MPa         0.04         0.1           DHW delivery         I/min         9.2         13.8           Aθ on delivery         K         28         28           Hydraulic data         Versions         0.4         0.4           Nominal capacity         I         0.4         0.4           Versions         0.4         0.4         0.4           Versions         1	Values							
Flow rate for pressure drop         I/min         5.2         7.7           Pressure drop at flow rate         MPa         0.04         0.1           DHW delivery         I/min         9.2         13.8           Δθ on delivery         K         28         28           Hydraulic data	Max. permissible inlet temperature	°C			65			65
Pressure drop at flow rate         MPa         0.04         0.1           DHW delivery         I/min         9.2         13.8           Δθ on delivery         K         28         28           Hydraulic data         ****  Nominal capacity**         I         0.4         0.4           Versions         ****  Temperature setting**         °C         20-60         20-60           Safety category         I         1         1         1           Insulating block         Plastic         Plastic         Plastic           Heating system         Bare wire         Bare wire         Bare wire           Cover and back panel         Plastic         Plastic         Plastic           Colour         white         white         white           IP rating         IP25         IP25           Dimensions         **         478         478           Width         mm         478         478           Width         mm         225         225           Depth         mm         105         105           Weights	On	l/min			> 2.5			> 2.5
DHW delivery         I/min         9.2         13.8           Δθ on delivery         K         28         28           Hydraulic data         C         20.4         0.4           Nominal capacity         I         0.4         0.4           Versions         Temperature setting         °C         20-60         20-60         20-60           Safety category         1         <	Flow rate for pressure drop	I/min			5.2			7.7
∆9 on delivery       K       28       28         Hydraulic data       C       0.4       0.4         Nominal capacity       I       0.4       0.4         Versions       C       20-60       20-60       20-60         Safety category       1        1       1       1       1       1       1       1       1       1       1       1       1       1       1       1        1       1       1       1       1       1       1       1       1       1       1       1       1       1       1        1       1       1       1       1       1       1       1       1       1       1       1       1       1       1        1       1       1       1       1       1       1       1       1       1       1       1       1       1       1        1       1       1       1       1       1       1       1       1       1       1       1       2       1       2        1       2       1       2       1       2       2       2       2       2       2       2       2       2       2	Pressure drop at flow rate	MPa			0.04			0.1
Hydraulic data         Nominal capacity         I         0.4         0.4           Versions         C         20-60         20-60         20-60         20-60         Safety category         1         2         1         2         1         2         2         2         2         2         2         2         2         2         2         2         2         <	DHW delivery	I/min			9.2			13.8
Nominal capacity         I         0.4         0.4           Versions         Temperature setting         °C         20-60         20-60         20-60           Safety category         1<	$\Delta \vartheta$ on delivery	K			28			28
Versions         C         20-60         20-60           Safety category         1         1           Insulating block         Plastic         Plastic           Heating system         Bare wire         Bare wire           Cover and back panel         Plastic         Plastic           Colour         white         white           IP rating         IP25         IP25           Dimensions         Fleight         478         478           Width         mm         225         225           Depth         mm         105         105           Weights         Total content of the property of the p	Hydraulic data							
Temperature setting         °C         20-60         20-60           Safety category         1         1         1           Insulating block         Plastic         Plastic           Heating system         Bare wire         Bare wire           Cover and back panel         Plastic         Plastic           Colour         white         white           IP rating         IP25         IP25           Dimensions         Fleight         478         478           Width         mm         225         225           Depth         mm         105         105           Weights         Weights         105         105	Nominal capacity	I			0.4			0.4
Safety category         1         1           Insulating block         Plastic         Plastic           Heating system         Bare wire         Bare wire           Cover and back panel         Plastic         Plastic           Colour         white         white           IP rating         IP25         IP25           Dimensions         IP25         IP25           Width         mm         478         478           Width         mm         225         225           Depth         mm         105         105           Weights         Weights         IV         IV <td>Versions</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Versions							
Insulating block         Plastic         Plastic           Heating system         Bare wire         Bare wire           Cover and back panel         Plastic         Plastic           Colour         white         white           IP rating         IP25         IP25           Dimensions         TH         478         478           Width         mm         225         225           Depth         mm         105         105           Weights         Weights         105         105	Temperature setting	°C			20-60			20-60
Heating system         Bare wire         Bare wire           Cover and back panel         Plastic         Plastic           Colour         white         white           IP rating         IP25         IP25           Dimensions         T         478         478           Width         mm         225         225           Depth         mm         105         105           Weights         Weights         T         105	Safety category				1			1
Cover and back panel         Plastic         Plastic           Colour         white         white           IP rating         IP25         IP25           Dimensions         Trains         Trains           Height         mm         478         478           Width         mm         225         225           Depth         mm         105         105           Weights         Trains of the property o	Insulating block				Plastic			Plastic
Colour         white         white           IP rating         IP25         IP25           Dimensions         Height         mm         478         478           Width         mm         225         225           Depth         mm         105         105           Weights         Weights         105         105	Heating system				Bare wire			Bare wire
IP rating         IP25           Dimensions         Feight           Height         mm         478         478           Width         mm         225         225           Depth         mm         105         105           Weights         Weights         Teach of the property of the prop	Cover and back panel				Plastic			Plastic
Dimensions           Height         mm         478         478           Width         mm         225         225           Depth         mm         105         105           Weights         Weights         Total Control of the property of	Colour				white			white
Height         mm         478         478           Width         mm         225         225           Depth         mm         105         105           Weights         Weights         105         105	IP rating				IP25			IP25
Width         mm         225         225           Depth         mm         105         105           Weights         Weights         105         105	Dimensions							
Depth mm 105 105 Weights	Height	mm			478			478
Weights	Width	mm			225			225
	Depth	mm			105			105
Weight         kg         4.5	Weights							
	Weight	kg			4.5			4.5

## Warranty

The warranty conditions of our German companies do not apply to appliances acquired outside of Germany. In countries where our subsidiaries sell our products, it is increasingly the case that warranties can only be issued by those subsidiaries. Such warranties are only granted if the subsidiary has issued its own terms of warranty. No other warranty will be granted.

We shall not provide any warranty for appliances acquired in countries where we have no subsidiary to sell our products. This will not affect warranties issued by any importers.

## **Environment and recycling**

We would ask you to help protect the environment. After use, dispose of the various materials in accordance with national regulations.

#### Stiebel Eltron Warranty for Water Heaters - Models DHE AU

#### Who gives the warranty

1. The warranty is given by Stiebel Eltron (Aust) Pty Ltd (A.B.N. 82 066 271 083) of 294 Salmon Street, Port Melbourne VIC 3207 ("we", "us" or "our").

#### The warranty

- 2. This warranty applies to Stiebel Eltron Water Heaters Models DHE 18 AU and DHE 27 AU (the "unit") manufactured after 1 March 2014.
- 3. Subject to the warranty exclusions we will repair or replace, at our absolute discretion, a faulty component in your unit free of charge if it fails to operate in accordance with its specifications during the warranty period.
- 4. If we repair or replace a faulty component to your unit under this warranty, the warranty period is not extended from the time of the repair or replacement.
- 5. The warranty period commences on the date of completion of the installation of the unit. Where the date of completion of installation is not known, then the warranty period will commence 2 months after the date of manufacture.
- The warranty period for a unit used for domestic purposes is shown in the table below. Domestic purposes means that the unit is used in a domestic dwelling.

Component	Warranty period
All components	5 years from the date of completion of the installation of the unit.

7. The warranty period for a unit used for commercial purposes is shown in the table below. Commercial purposes means that the unit is used for a non-domestic purpose and includes but is not limited to being used in a motel, hotel, mining camp or nursing home.

Component	Warranty period
All components	1 year from the date of completion of the installation of the unit.

## Your entitlement to make a warranty claim

- 8. You are entitled to make a warranty claim if:
- 8.1. you own the unit or if you have the owner's consent to represent the owner of the unit;
- 8.2. you contact us within a reasonable time of discovering the problem with the unit; How you make a warranty claim
- To make a warranty claim you must provide us with the following information:
- 9.1. The model number of the unit;
- 9.2. A description of the problem with the unit;
- 9.3. The name, address and contact details (such as phone number and e-mail address) of the owner;
- 9.4. The address where the unit is installed and the location (e.g. in laundry);
- 9.5. The serial number of the unit;
- 9.6. The date of purchase of the unit and the name of the seller of the unit;
- 9.7. The date of installation of the unit;
- A copy of the certificate of compliance when the unit was installed.
- The contact details for you to make your warranty claim are:

Name:	Stiebel Eltron (Aust) Pty Ltd
Address:	294 Salmon Street, Port Melbourne VIC 3207
Telephone:	1800 153 351 (8.00 am to 5.00 pm AEST
·	The state of the s
	Monday to Friday)
Contact person:	Customer Service Representative
E-mail:	service@stiebel-eltron.com.au

#### Warranty exclusions

- 12. We may reject your warranty claim if:
- 12.1. The unit was not installed by registered and qualified tradespeople.
- 12.2. The unit was not installed and commissioned:
  - a) in Australia;
  - b) in accordance with the Operating and Installation Guide; and
  - in accordance with the relevant statutory and local requirements of the State or Territory in which the unit is installed.

## WARRANTY | ENVIRONMENT AND RECYCLING

- 12.3. The unit has not been operated or maintained in accordance with the Operating and Installation Guide.
- 12.4. The unit does not bear its original Serial Number or Rating Label.
- 12.5. The unit was damaged by any or any combination of the following:
  - a) normal fair wear and tear;
  - b) connection to an incorrect water supply;
  - c) connection to water from a bore, dam or swimming pool;
  - d) connection to an incorrect power supply;
  - e) connection to faulty equipment, such as damaged valves:
  - f) foreign matter in the water supply, such as sludge or sediment;
  - g) corrosive elements in the water supply;
  - h) accidental damage;
  - act of God, including damage by flood, storm, fire, lightning strike and the like;
  - j) excessive water pressure, negative water pressure (partial vacuum) or water pressure pulsation.
- 12.6. The unit was damaged before it was installed e.g. it was damaged in transit.
- 12.7. An unauthorised person has modified, serviced, repaired or attempted to repair the unit without our consent.
- 12.8. Non genuine parts other than those manufactured or approved by us have been used on the unit.
- 13. We may charge you:
- 13.1. for any additional transport costs if the unit is installed more than 30 kilometres from our closest authorised service technician.
- 13.2. for the extra time it takes our authorised service technician to access the unit for inspection and testing if it is not sited in accordance with the Operating and Installation Guide and not readily accessible for inspection.
- 13.3. for any extra costs of our authorised service technician to make the unit safe for inspection.
- 14. You must ensure that access to the unit by our authorised service technician is safe and free from obstruction.
- 15. Our authorised service technician may refuse to inspect and test the unit until you provide safe and free access to it, at your own cost.
- 16. If we reject your warranty claim in accordance with clause 12, we may charge you for our authorised service technician's labour costs to inspect and test the unit.
- In order to properly test the unit we may remove it to another location for testing.

#### **Australian Consumer Law**

- 18. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.
- 19. The Stiebel Eltron warranty for the unit is in addition to any rights and remedies you may have under the Australian Consumer law

ENGLISH

#### **Deutschland**

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Kundendienst Tel. 05531 702-111 | Fax 05531 702-95890 | kundendienst@stiebel-eltron.de

Ersatzteilverkauf Tel. 05531 702-120 | Fax 05531 702-95335 | ersatzteile@stiebel-eltron.de

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**STIEBEL ELTRON** 



Irrtum und technische Änderungen vorbehalten! | Subject to errors and technical changes! | Sous réserve d'erreurs et de modifications techniques! | Onder voorbehoud van vergissingen en technische wijzigingen! | Salvo error o modificación técnica! | Excepto erro ou alteração técnica | Zastrzežone zmiany techniczne i ewentualne blędy | Omyly a technické změny jsou vyhrazeny! | A muszaki változtatások és tévedések jogát fenntartjuk! | Отсутствие ошибок не гарантируется. Возможны технические изменения. | Сhyby a technické zmeny sú vyhradené!