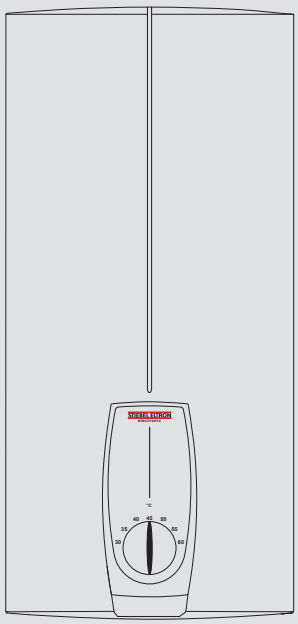
OPERATION AND INSTALLATION

Electronically controlled instantaneous water heater

» DHB-E 13 AU
» DHB-E 18 AU
» DHB-E 27 AU



STIEBEL ELTRON

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 / Installation".
- Observe the maximum permissible pressure (see chapter "Specification / Data table").
- Drain the appliance as described in chapter "Installation / Maintenance / Draining the appliance".

OPERATION

1. General information

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.

1.1 Safety instructions

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
	Injury
	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.

1.2 Other symbols in this documentation

Note
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.

1.3 Units of measurement

Note
Unless specified otherwise, all dimensions are given in mm.

2. Safety

2.1 Intended use

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.

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

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.

2.2 General safety instructions

CAUTION Burns
During operation, the tap can reach temperatures in excess of 50 °C, e.g. in the case of water that has been preheated by solar energy.
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.

Damage to the appliance and environment
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

The electronically controlled instantaneous water heater with automatic output matching maintains a consistent outlet temperature. This occurs irrespective of the inlet temperature, up to the maximum output. The DHW outlet temperature can be variably adjusted.

DHW temperature

The DHW outlet temperature can be variably adjusted.

Temperature limit / Anti-scalding protection

The maximum outlet temperature for the appliance can be limited to 43 °C. For this, contact your local heating contractor.

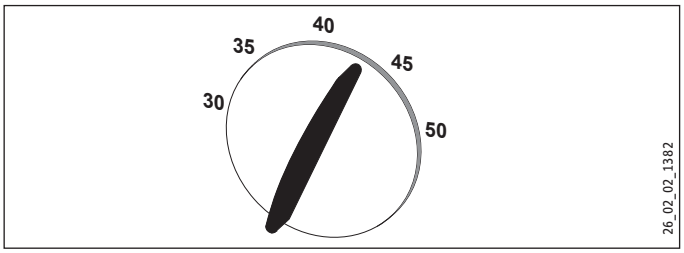
Heating system

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.

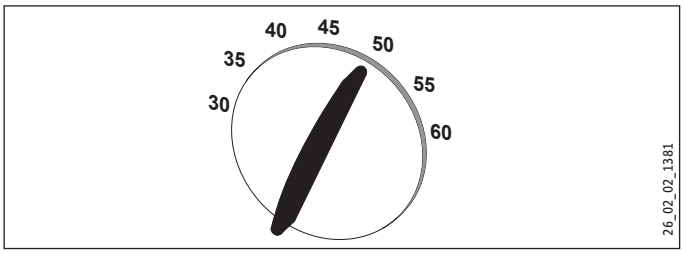
Note
The appliance is equipped with an air detector that largely prevents damage to the heating system. If, during operation, air is drawn into the appliance, heating output is shut down automatically for one minute, thereby protecting the heating system.

4. Settings

DHB-E 13 AU



DHB-E 18 AU | DHB-E 27 AU



Should the outlet temperature fail to reach the required level with the draw-off valve fully open and the temperature selector set to maximum, then more water is flowing through the appliance than can be heated by the heating element.

▶ Reduce the flow rate at the draw-off valve.

Recommended setting for operation with a thermostatic valve and water preheated by solar energy

▶ Set the temperature at the appliance to the max. temperature.

4.1 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.

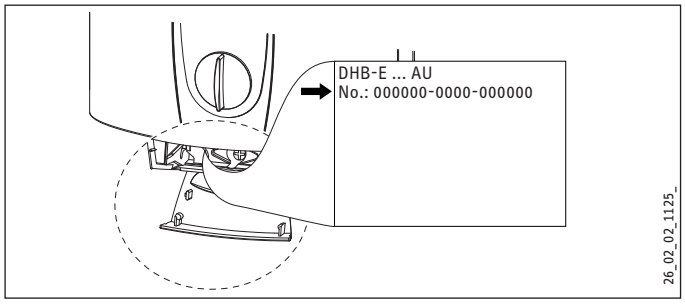
5. Cleaning, care and maintenance

▶ 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

Fault	Cause	Remedy
The appliance will not start despite the DHW valve being fully open.	There is no voltage in the appliance.	Check the fuses/MCBs 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 "Settings / Following an interruption to the water supply").
Cold water flows briefly while hot water is being drawn.	The air sensor detects air in the water and the appliance's heating output is briefly switched off.	The appliance restarts automatically after 1 minute.
Required temperature > 45 °C is not achieved.	The appliance no longer delivers heat. The cold water inlet temperature is > 45 °C.	Reduce the cold water inlet temperature.

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 (000000-0000-000000):



INSTALLATION

7. Safety

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

7.1 General safety instructions

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

Flow pressure

If the flow rate is not sufficient to switch on the appliance even when the tap is open, remove the flow limiter and replace it with the plastic profile washer supplied.

If required, the pressure in the water installation can also be raised.

Note
If a thermostatic valve is used, you must not replace the flow limiter with the plastic profile washer.

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, factor in the lowest electrical resistance of the water (see chapter "Specification / Application areas"). Your water supply utility will advise you of the specific electrical water resistance or conductivity.

8. Appliance description

8.1 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
- Flow limiter
- Plastic profile washer
- Plastic cap
- Flexible plastic couplings
- Cover and back panel guides

9. 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) is sufficient for switching on the appliance.

▶ Increase the mains water pressure if the required flow rate is not sufficient with an open draw-off valve.

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.

9.1 Installation site

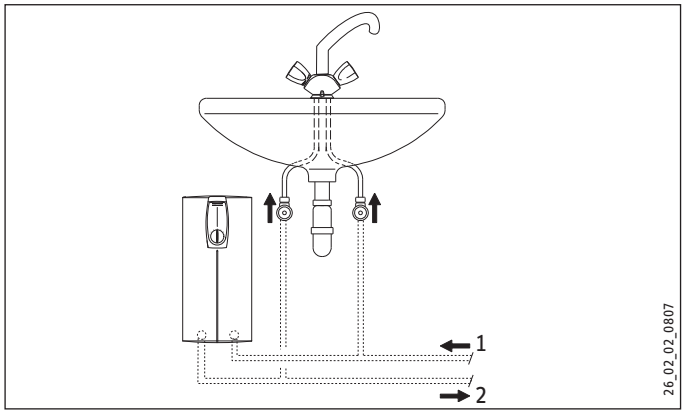
Material losses
Only install the appliance in rooms free from the risk of frost.

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

The appliance is suitable for undersink and oversink installations.

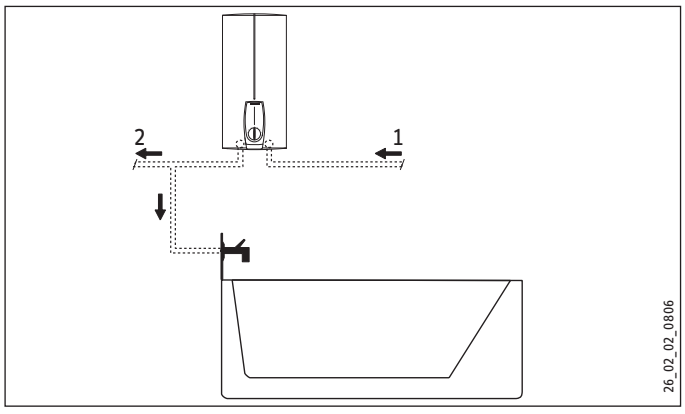
Note
Mount the appliance on a sufficiently load-bearing wall.

Undersink installation



1 Cold water inlet
2 DHW outlet

Oversink installation



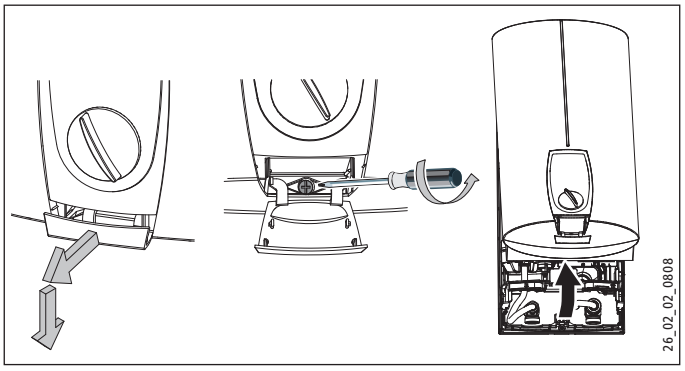
1 Cold water inlet
2 DHW outlet

10. Installation

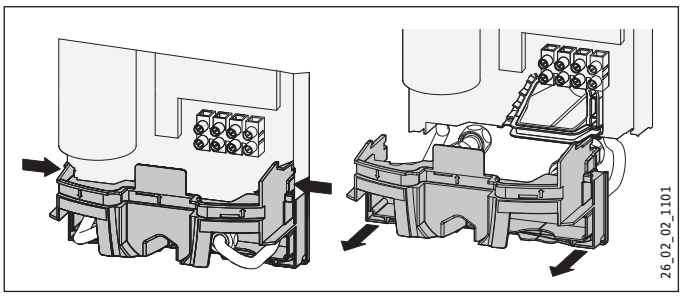
10.1 Standard installation

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

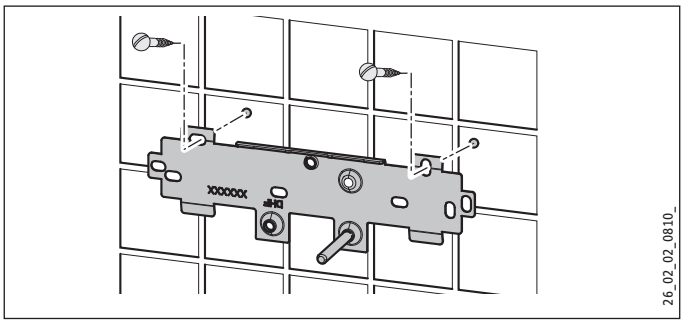
For further installation options, see chapter "Installation options".



▶ Open the appliance.



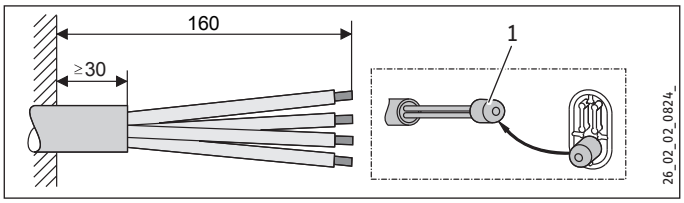
▶ Remove the back panel by pressing the two locking hooks and pulling the lower part of the back panel forwards.



▶ 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.

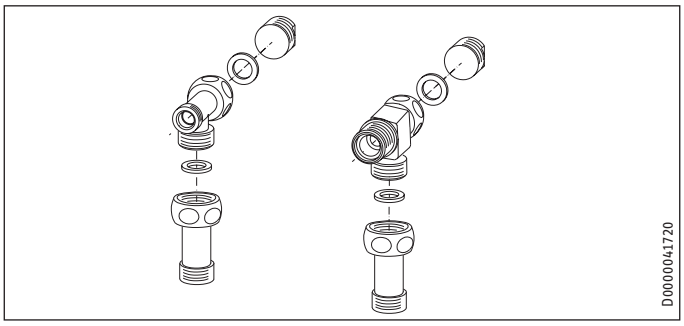


1 Installation aid

▶ Prepare the power cable.

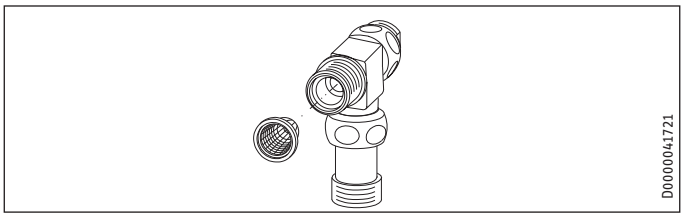
Preparing the water connection

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



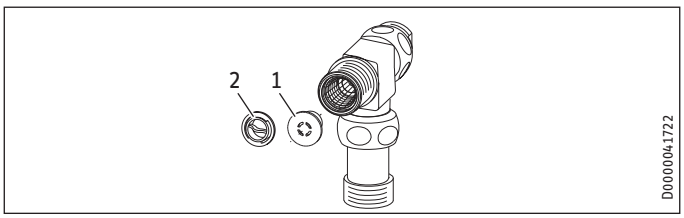
▶ Remove the caps from the tees.

▶ 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.

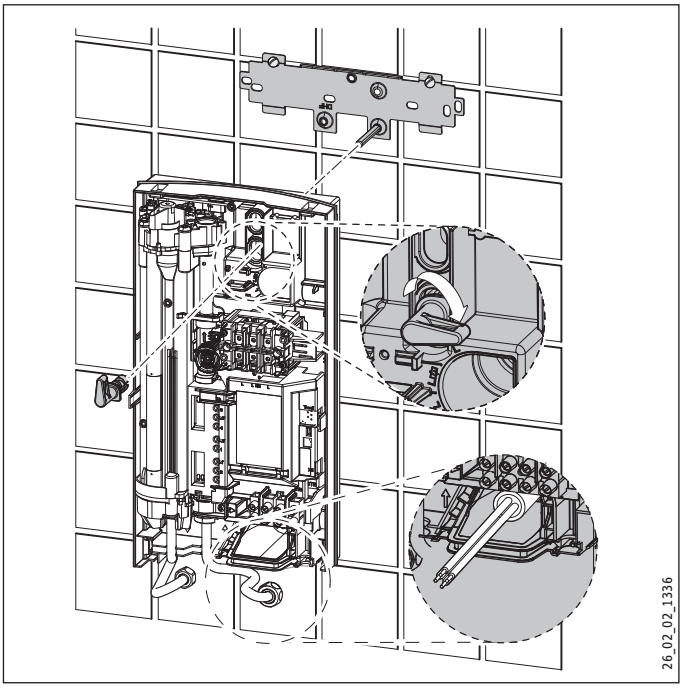


1 Flow limiter
2 Plastic profile washer

▶ Fit the flow limiter or plastic profile washer.

Note
▶ Install the flow limiter.
▶ With low water pressure.The pressure drop can be reduced by replacing the flow limiter with the plastic profile washer provided.

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.

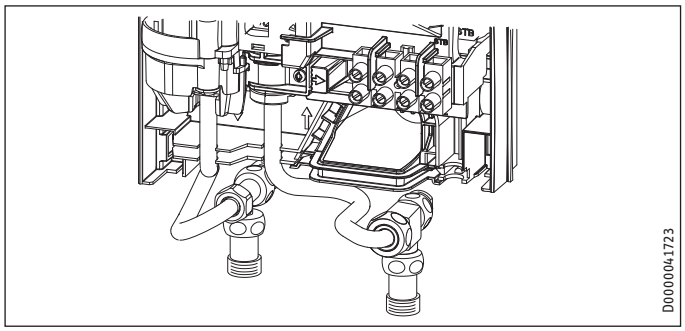
▶ Remove the fixing toggle from the upper part of the back panel.

▶ Route the power cable through the 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 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.

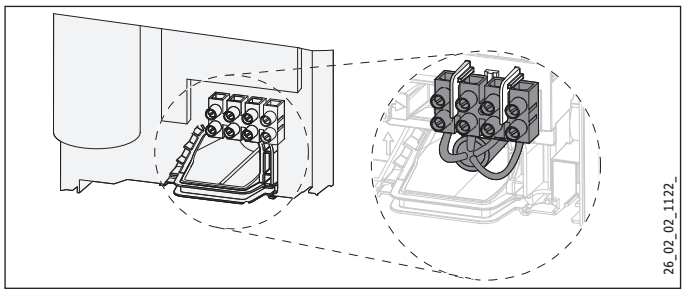
Making the electrical connection

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.

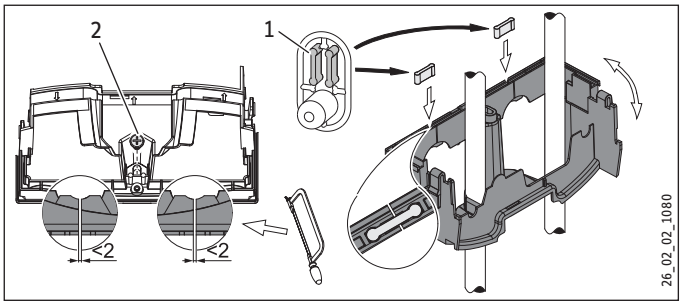
WARNING Electrocution
Ensure that the appliance is earthed.

Damage to the appliance and environment
Observe the type plate. The specified voltage must match the mains voltage.



- ▶ 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



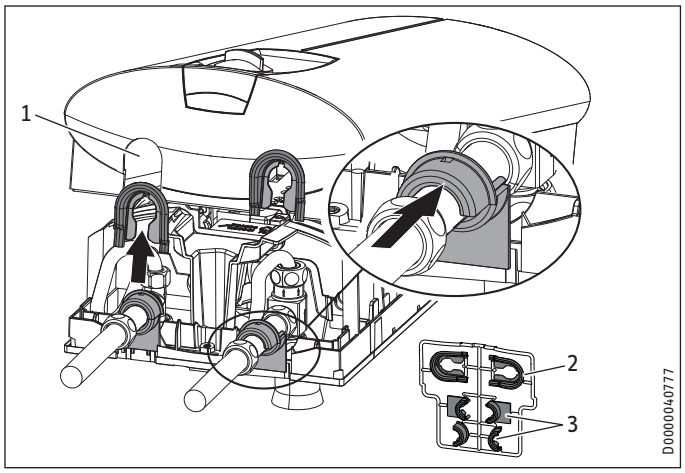
1 Connection pieces delivered in the pack
2 Screw

- ▶ 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



1 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.

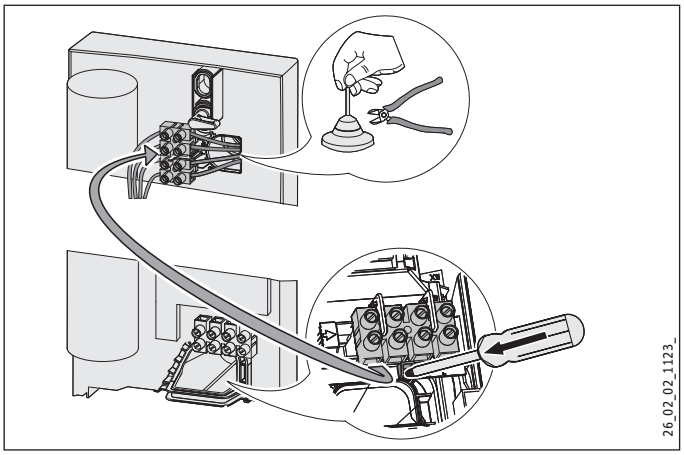
▶ Click the cover guides into place in the pipe apertures.

▶ Position the back panel guides on the extensions. Push them together. Then push the guides until they are resting against the back panel.

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
- Temperature limitation / Anti-scalding protection

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.

Power cable 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.

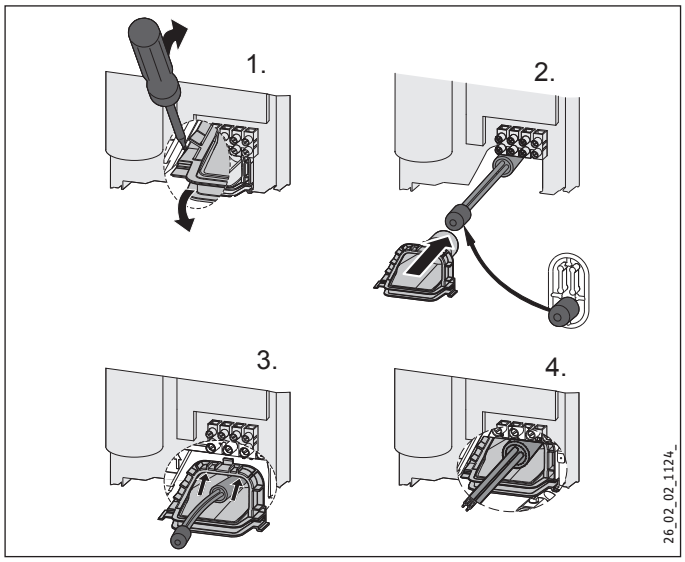
▶ Route the power cable through the cable grommet. Connect the power cable to the mains terminal.

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.

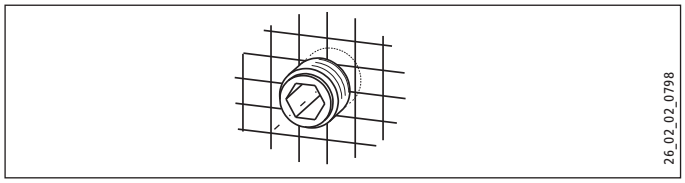
Large cross-section for electrical connection from below

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

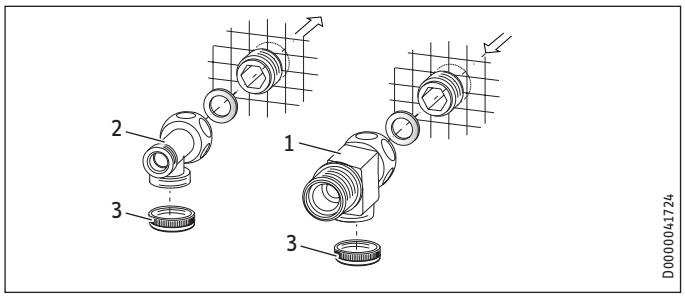


- ▶ Before installing the appliance, use a screwdriver to push out the cable grommet.
- ▶ Slide the cable grommet over the power cable. For this, use the installation aid. If the cross-section is > 6 mm², enlarge the hole in the cable grommet.
- ▶ Push the cable grommet into the back panel.

Water installation on unfinished walls

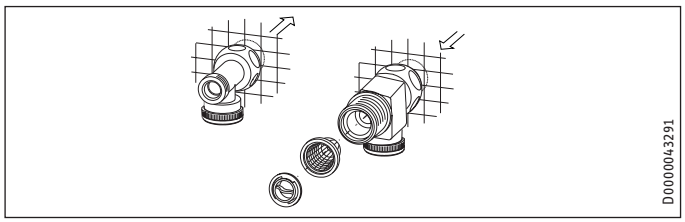


- ▶ Seal and screw in the twin connectors (not included in standard delivery).



1 Tee for cold water
2 Tee for domestic hot water
3 Cover

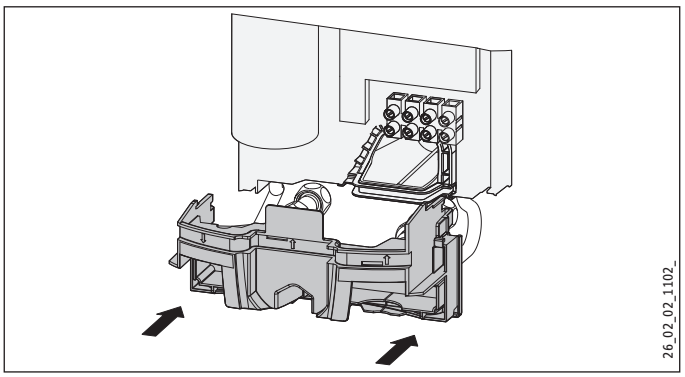
- ▶ Fit the water connections.



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

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



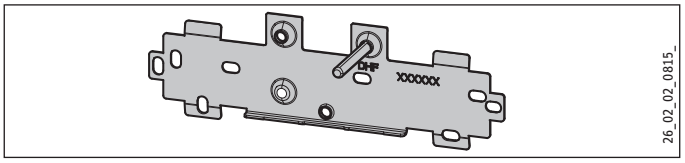
- ▶ Fit the lower part of the back panel. Ensure that it clicks into place.
- ▶ Align the mounted appliance by loosening the fixing toggle, aligning the power supply and back panel, and then re-tightening the fixing toggle. If the back panel of the appliance is not flush, the appliance can be secured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

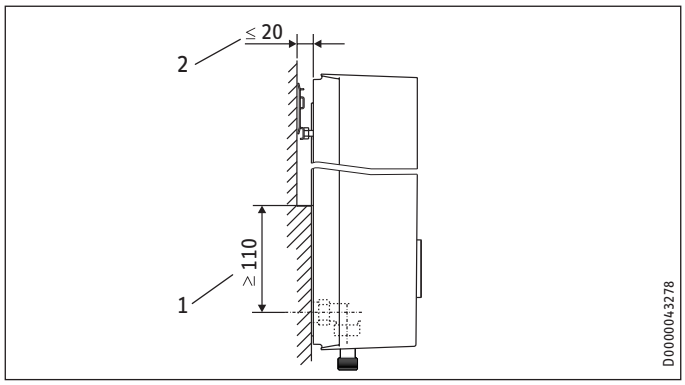
- ▶ Press the appliance over the threaded stud of the existing wall mounting bracket. When doing so, push through the soft seal in the back panel of the appliance. If necessary, use a screwdriver.

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

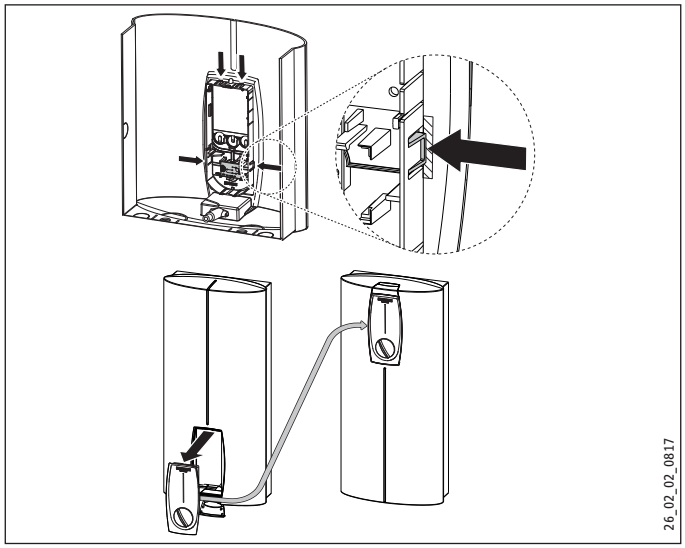


1 Minimum contact area of the appliance
2 Maximum tile offset

▶ Adjust the wall clearance. Lock the back panel with the fixing toggle by turning it 90° clockwise.

Pivoting appliance cover

You can rotate the appliance cover 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 in at the bottom. Pivot it up to the back panel.

▶ Ensure the all-round seal of the back panel is firmly seated by pushing the 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.

Temperature limitation / Anti-scalding protection

The maximum temperature can be limited to 43 °C via the programming unit on the appliance cover. For this, the following steps are necessary:

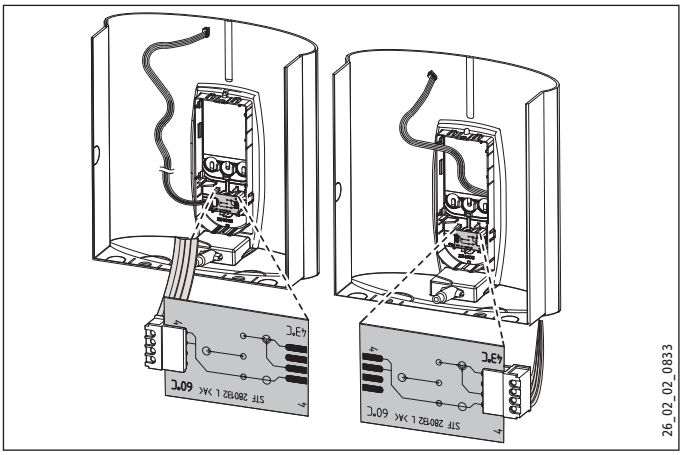
▶ Remove the appliance cover.

▶ Remove the electronic PCB from the programming unit on the appliance cover. Be careful with the snap-on hooks.

▶ Move the plug from left to right (position "43 °C").

▶ Refit the programming unit, ensuring the snap-on hooks click into place. Observe the positions of the push-button and shaft.

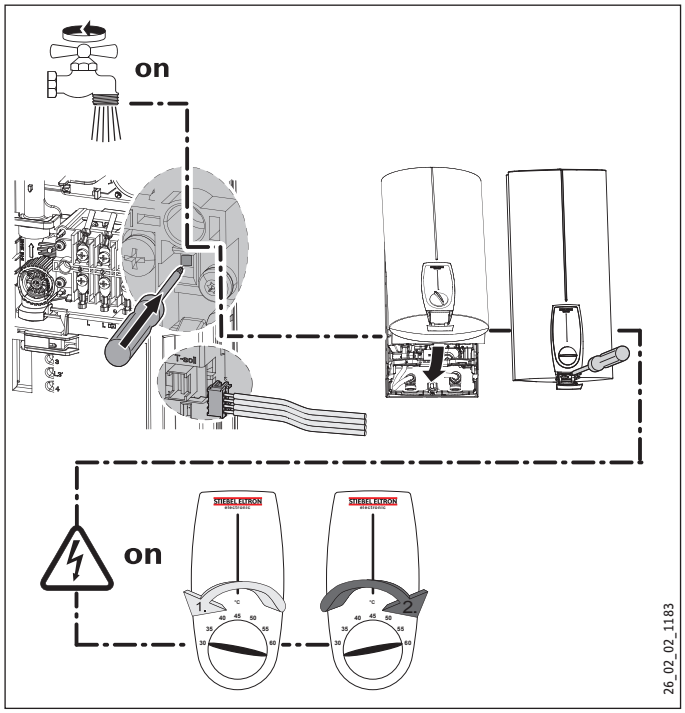
CAUTION Burns
When operating with preheated water, the set temperature limit / anti-scalding protection may be ineffective.
▶ In this case, limit the temperature at the upstream central thermostatic valve.



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.
- ▶ Check for leaks in the appliance screw joints.
- ▶ Activate the safety pressure limiter for flow pressure by firmly pressing in the reset button (the appliance is delivered with the safety pressure limiter disabled).
- ▶ Push the temperature selector plug into the "set temperature" PCB.
- ▶ Fit the appliance cover and secure with a screw.
- ▶ Switch the mains power ON.
- ▶ Calibrate the temperature. For this, turn the temperature selector fully clockwise then fully anti-clockwise.
- ▶ 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. Shutting down the system

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

13. Troubleshooting

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

13.1 Indicator options for LED diagnostic traffic light

Indicator options		
	Red	Illuminates in the event of a fault
	Yellow	Illuminates during heating mode
	Green	Flashing: Appliance is supplied with mains power

13.2 Fault table

Fault / diagnostic traffic light LED display	Cause	Remedy
The appliance does not start.	The shower head / aerators are scaled up.	Descale or if necessary replace the shower head / aerators.
Inadequate flow rate.	The strainer in the appliance is dirty.	Clean the strainer.
The set temperature is not achieved.	One phase down.	Check the fuses/MCBs in your fuse box/distribution panel.
The heater switches off.	The air sensor detects the presence of air in the water and briefly interrupts the heating output.	The appliance restarts after one minute.
No hot water and no traffic light display.	The MCB/fuse has responded/blown.	Check the fuses/MCBs in your fuse box/distribution panel.
	Safety pressure limiter AP 3 has tripped.	Remove the cause of the fault (e.g. faulty pressure washer).
		Protect the heating system against overheating by opening a draw-off valve downstream from the appliance for one minute. This depressurises and cools down the heating system.
		Activate the safety pressure limiter at flow pressure by pressing the reset button; see also chapter "Commissioning / Initial start-up".
	The PCB is faulty.	Check the PCB and replace if necessary.
Traffic light display: Green flashing No hot water at flow rate > 3 l/min.	Flow sensor DFE is not plugged in.	Plug the flow sensor plug back in.
	Flow sensor DFE is faulty.	Check the flow sensor and replace if necessary.
The set temperature is not achieved.	The set value transducer or connecting cable is faulty, or the connecting cable is not attached.	Attach the connecting cable; replace the set value transducer if required.
	Temperature limiting is activated.	Disable temperature limiting.
Traffic light display: Yellow constantly on; green flashing No hot water at flow rate > 3 l/min.	The high limit safety cut-out has responded or its lead is broken.	Check the high limit safety cut-out and replace if necessary.
	The heating system is faulty.	Measure the resistance of the heater and replace if necessary.
	The PCB is faulty.	Check the PCB and replace if necessary.
Traffic light display: yellow constantly on; green flashing	The outlet sensor is faulty.	Check the connection and replace the outlet sensor if necessary.
Set temperature is not achieved.	Appliance is operating at its output limit.	Reduce the flow rate or install the flow limiter.
Traffic light display: red constantly on; green flashing	The outlet sensor is faulty.	Check the connection and replace the outlet sensor if necessary.
No hot water	The cold water sensor is faulty.	Check the PCB and replace if necessary.
Required temperature > 45 °C not achieved	The cold water inlet temperature exceeds 45 °C.	Reduce the cold water inlet temperature to the appliance.

14. Maintenance

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

Draining the appliance

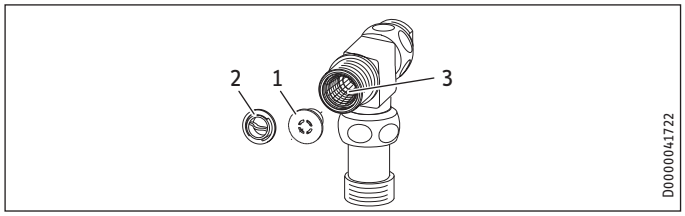
You can drain the appliance for maintenance work.

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.

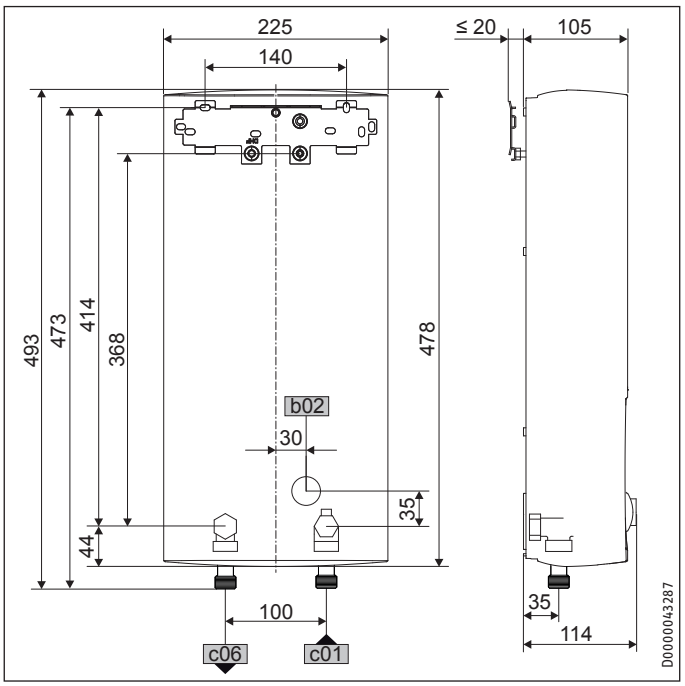


1 Flow limiter or
2 Plastic profile washer
3 Strainer

- ▶ Remove the flow limiter or plastic profile washer (selected during installation).
- ▶ Remove the strainer and clean the components.
- ▶ Fit the strainer and the plastic profile washer or flow limiter.

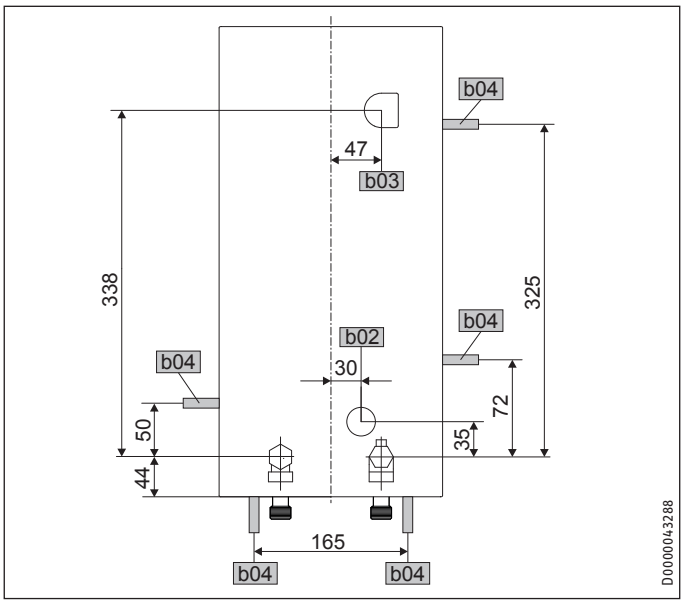
15. Specification

15.1 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

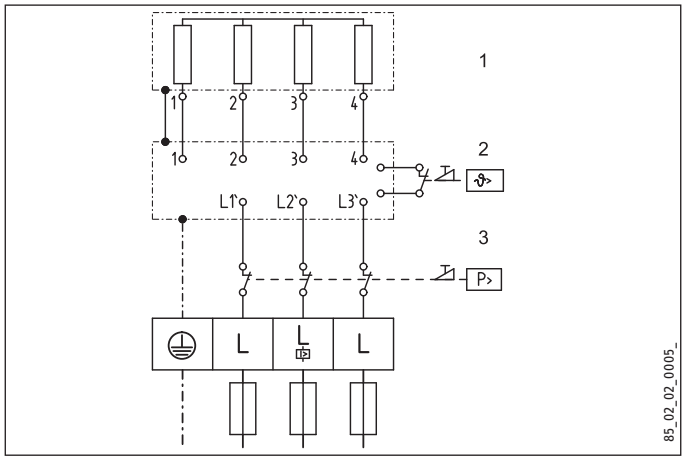
Alternative connection options



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

15.2 Wiring diagram

3/PE ~ 380-415 V



1 Heater
2 High limit safety cut-out
3 Safety pressure limiter

15.3 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 voltage			Cold water inlet temperature			
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
			13.0	15.3	18.8	24.0
		30.2	13.1	15.4	18.9	24.1
		31.1	13.5	15.8	19.4	24.8
		32.3	14.0	16.4	20.2	25.7
		33.1	14.3	16.8	20.7	26.4
		34.0	14.7	17.3	21.2	27.1
		34.9	15.1	17.7	21.8	27.8
		36.0	15.6	18.3	22.5	28.7
		36.8	15.9	18.7	23.0	29.4
		37.7	16.3	19.2	23.6	30.1
		38.6	16.7	19.6	24.1	30.8
		39.5	17.1	20.1	24.7	31.5
		40.4	17.5	20.5	25.2	32.2
		41.3	17.9	21.0	25.8	32.9
		42.2	18.3	21.5	26.4	33.7
		43.1	18.7	21.9	26.9	34.4
		44.0	19.1	22.4	27.5	35.1
		44.9	19.5	22.9	28.1	35.8
		45.8	19.9	23.3	28.6	36.5
		46.7	20.3	23.8	29.2	37.2
		47.6	20.7	24.3	29.8	38.0
		48.5	21.1	24.7	30.3	38.7
		49.4	21.5	25.2	30.9	39.4
		50.3	21.9	25.7	31.5	40.1
		51.2	22.3	26.1	32.0	40.8
		52.1	22.7	26.6	32.6	41.5
		53.0	23.1	27.1	33.2	42.3
		53.9	23.5	27.5	33.7	43.0
		54.8	23.9	28.0	34.3	43.7
		55.7	24.3	28.5	34.9	44.4
		56.6	24.7	28.9	35.4	45.1
		57.5	25.1	29.4	36.0	45.8
		58.4	25.5	29.9	36.6	46.6
		59.3	25.9	30.3	37.1	47.3
		60.2	26.3	30.8	37.7	48.0
		61.1	26.7	31.3	38.3	48.7
		62.0	27.1	31.7	38.8	49.4
		62.9	27.5	32.2	39.4	50.1
		63.8	27.9	32.7	40.0	50.9
		64.7	28.3	33.1	40.5	51.6
		65.6	28.7	33.6	41.1	52.3
		66.5	29.1	34.1	41.7	53.0
		67.4	29.5	34.5	42.2	53.7
		68.3	29.9	35.0	42.8	54.4
		69.2	30.3	35.5	43.4	55.2
		70.1	30.7	35.9	43.9	55.9
		71.0	31.1	36.4	44.5	56.6
		71.9	31.5	36.9	45.1	57.3
		72.8	31.9	37.3	45.6	58.0
		73.7	32.3	37.8	46.2	58.7
		74.6	32.7	38.3	46.8	59.5
		75.5	33.1	38.7	47.3	60.2
		76.4	33.5	39.2	47.9	60.9
		77.3	33.9	39.7	48.5	61.6
		78.2	34.3	40.1	49.0	62.3
		79.1	34.7	40.6	49.6	63.1
		80.0	35.1	41.1	50.2	63.8

Connected load in kW			50 °C DHW output in l/min.			
Rated voltage			Cold water inlet temperature			
380 V	400 V	415 V	5 °C	10 °C	15 °C	20 °C
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
	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
		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
		29.1	9.2	10.4	11.9	13.9

15.4 Application areas / conversion table

Specific electrical resistance and specific electrical conductivity (see chapter "Data table").

Standard specification at 15 °C			20 °C			25 °C		
Resistance ρ	Conductivity σ		Resistance ρ	Conductivity σ		Resistance ρ	Conductivity σ	
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

15.5 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

To calculate pipework sizing, apply a pressure drop of 0.1 MPa to the appliance.

15.6 Fault conditions

In case of faults, loads up to 95 °C at a pressure of 1.0 MPa can occur temporarily in the installation.

15.7 Data table

		DHB-E 13 AU			DHB-E 18 AU			DHB-E 27 AU		
				232360			233986			233987
Electrical data										
Rated voltage	V	380	400	415	380	400	415	380	400	415
Rated output	kW	12.2	13.5	14.5	16.2	18	19.4	23.5	26	28
Rated current	A	18.5	19.5	20.2	24.7	26	27	35.6	37.7	38.9
Fuse/MCB rating	A	20	20	20	25	25	32	40	40	40
Phases				3/PE			3/PE			3/PE
Frequency	Hz	50/60	50/60	50/-	50/60	50/60	50/-	50/-	50/-	50/-
Specific resistance $\rho_{15} \geq$ (at ϑcold ≤25 °C)	Ω cm	900	900	1000	900	900	1000	900	900	1000
Specific conductivity $\sigma_{15} \leq$ (at ϑcold ≤25 °C)	µS/cm	1111	1111	1000	1111	1111	1000	1111	1111	1000
Specific resistance $\rho_{15} \geq$ (at ϑcold ≤45 °C)	Ω cm	1200	1200	13000	1200	1200	1300	1200	1200	1300
Specific conductivity $\sigma_{15} \leq$ (at ϑcold ≤45 °C)	µS/cm	833	833	770	833	833	770	833	833	770
Max. mains impedance at 50Hz	Ω				0.474	0.450	0.433	0.316	0.300	0.289
Max. mains impedance at 60Hz	Ω				0.392	0.372				
Connections										
Water connection				G 1/2 A			G 1/2 A			G 1/2 A
Application limits										
Max. permissible pressure	MPa			1			1			1
Max. inlet temperature for reheating	°C			45			45			45
Values										
Max. permissible inlet temperature	°C			60			60			60
On	l/min			>3.0			>3.0			>3.0
Flow rate for pressure drop	l/min			5.2			5.2			7.7
Pressure drop at flow rate	MPa			0.08 (0.06 without DMB)			0.08 (0.06 without DMB)			0.16 (0.12 without DMB)
Flow rate limit at	l/min			7.5			7.5			8.5
DHW delivery	l/min			6.9			9.2			13.8
$\Delta\vartheta$ on delivery	K			28			28			28
Hydraulic data										
Nominal capacity	l			0.4			0.4			0.4
Versions										
Connected load options				-						
Temperature setting	°C			30-50			30-60			30-60
Safety category				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			IP25
Dimensions										
Height	mm			478			478			478
Width	mm			225			225			225
Depth	mm			105			105			105
Weights										
Weight	kg			3.6			3.6			3.6

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 DHB-E AU

Who gives the warranty

1. The warranty is given by Stiebel Eltron (Aust) Pty Ltd (A.B.N. 82 066 271 083) of Unit 4/8 Rocklea Drive, Port Melbourne, Victoria, 3207 ("we", "us" or "our").

The warranty

2. This warranty applies to Stiebel Eltron Water Heaters – Models DHB-E 13 AU, DHB-E 18 AU and DHB-E 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.

6. 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

9. 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;

9.8. A copy of the certificate of compliance when the unit was installed.

10. The contact details for you to make your warranty claim are:

Name:	Stiebel Eltron (Aust) Pty Ltd
Address:	Unit 4, 8 Rocklea Drive, Port Melbourne, Victoria, 3207
Telephone:	1800 153 351 (8.00 am to 5.00 pm AEST Monday to Friday)
Contact person:	Customer Service Representative
E-mail:	service@stiebel.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
c) in accordance with the relevant statutory and local requirements of the State or Territory in which the unit is installed.

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;
i) 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.

17. 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.

Deutschland
STIEBEL ELTRON GmbH & Co. KG
Dr.-Stiebel-Straße 33 | 37603 Holzminden
Tel. 05531 702-0 | Fax 05531 702-480
info@stiebel-eltron.de
www.stiebel-eltron.de

Verkauf Tel. 05531 702-110 | Fax 05531 702-95108 | info-center@stiebel-eltron.de
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

Australia
STIEBEL ELTRON Australia Pty. Ltd.
B \~{tm w¦ _¡~qq¡ | Port Melbourne VIC 3207
Tel. 03 9645-1833 | Fax 03 9645-4366
info@stiebel.com.au
www.stiebel.com.au

Austria
STIEBEL ELTRON Ges.m.b.H.
Eferdinger Str. 73 | 4600 Wels
Tel. 07242 47367-0 | Fax 07242 47367-42
info@stiebel-eltron.at
www.stiebel-eltron.at

Belgium
STIEBEL ELTRON bvba/sprl
't Hofveld 6 - D1 | 1702 Groot-Bijgaarden
Tel. 02 42322-22 | Fax 02 42322-12
info@stiebel-eltron.be
www.stiebel-eltron.be

China
Stiebel Eltron (Guangzhou) Technology Development Co., Ltd.
Rm 102, F1, Yingbin-Yihao Mansion, No. 1 Yingbin Road
Panyu District | 511431 Guangzhou
Tel. 020 61952996 | Fax 020 61952990
info@stiebeleltron.cn
www.stiebeleltron.cn

Czech Republic
STIEBEL ELTRON spol. s r.o.
K Hájům 946 | 155 00 Praha 5 - Stodůlky
Tel. 251116-111 | Fax 235512-122
info@stiebel-eltron.cz
www.stiebel-eltron.cz

Denmark
Pettinaroli A/S
Mandal Allé 21 | 5500 Middelfart
Tel. 06341 666-6 | Fax 06341 666-0
info@stiebel-eltron.dk
www.stiebel-eltron.dk

Finland
STIEBEL ELTRON OY
Kapinakuja 1 | 04600 Mäntsälä
Tel. 020 720-9988
info@stiebel-eltron.fi
www.stiebel-eltron.fi

France
STIEBEL ELTRON SAS
7-9, rue des Selliers
B.P 85107 | 57073 Metz-Cédex 3
Tel. 0387 7438-88 | Fax 0387 7468-26
info@stiebel-eltron.fr
www.stiebel-eltron.fr

Hungary
STIEBEL ELTRON Kft.
Gyár u. 2 | 2040 Budaörs
Tel. 01 250-6055 | Fax 01 368-8097
info@stiebel-eltron.hu
www.stiebel-eltron.hu

Japan
NIHON STIEBEL Co. Ltd.
Kowa Kawasaki Nishiguchi Building 8F
66-2 Horikawa-Cho
Saiwai-Ku | 212-0013 Kawasaki
Tel. 044 540-3200 | Fax 044 540-3210
info@nihonstiebel.co.jp
www.nihonstiebel.co.jp

Netherlands
STIEBEL ELTRON Nederland B.V.
Daviottenweg 36 | 5222 BH 's-Hertogenbosch
Tel. 073 623-0000 | Fax 073 623-1141
info@stiebel-eltron.nl
www.stiebel-eltron.nl

Poland
STIEBEL ELTRON Polska Sp. z o.o.
ul. Działkowa 2 | 02-234 Warszawa
Tel. 022 60920-30 | Fax 022 60920-29
stiebel@stiebel-eltron.pl
www.stiebel-eltron.pl

Russia
STIEBEL ELTRON LLC RUSSIA
Urzhumskaya street 4,
building 2 | 129343 Moscow
Tel. 0495 7753889 | Fax 0495 7753887
info@stiebel-eltron.ru
www.stiebel-eltron.ru

Slovakia
TATRAMAT - ohrievače vody, s.r.o.
Hlavná 1 | 058 01 Poprad
Tel. 052 7127-125 | Fax 052 7127-148
info@stiebel-eltron.sk
www.stiebel-eltron.sk

Switzerland
STIEBEL ELTRON AG
Industrie West
Gass 8 | 5242 Lupfig
Tel. 056 4640-500 | Fax 056 4640-501
info@stiebel-eltron.ch
www.stiebel-eltron.ch

Thailand
STIEBEL ELTRON Asia Ltd.
469 Moo 2 Tambol Klong-Jik
Amphur Bangpa-In | 13160 Ayutthaya
Tel. 035 220088 | Fax 035 221188
info@stiebeleltronasia.com
www.stiebeleltronasia.com

United Kingdom and Ireland
STIEBEL ELTRON UK Ltd.
Unit 12 Stadium Court
Stadium Road | CH62 3RP Bromborough
Tel. 0151 346-2300 | Fax 0151 334-2913
info@stiebel-eltron.co.uk
www.stiebel-eltron.co.uk

United States of America
STIEBEL ELTRON, Inc.
17 West Street | 01088 West Hatfield MA
Tel. 0413 247-3380 | Fax 0413 247-3369
info@stiebel-eltron-usa.com
www.stiebel-eltron-usa.com

STIEBEL ELTRON

4 017213 138785

A 313878-37836-8944
B 313877-37836-8943

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 | Zastrzeżone zmiany techniczne i ewentualne błędy | Omyly a technické změny jsou vyhrazeny! | A muszaki változtatások és tévedések jogát fenntartjuk! | Отсутствие ошибок не гарантируется. Возможны технические изменения. | Chyby a technické zmeny sú vyhradené!

Stand 8870