

Gebrauchs- und Montageanleitung
Operating and installation instructions

Warmwasserspeicher
SX 50/80/100/120

Water storage heater
SX 50/80/100/120



de > 3

en > 17



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2. Legionella prevention

Recommendations based on European standard CEN/TR 16355

Legionella are rod shaped bacteria which are a natural constituent of all fresh waters.

Legionnaires' disease is a serious pneumonia infection caused by inhaling the bacteria Legionella pneumophila or other Legionella species. This bacterium can be found in domestic, hotel and other water systems and in water used for air conditioning or air cooling system. Hence the main intervention against the condition is prevention, through control of the organism in water systems.

The European standard CEN/TR 16355 gives recommendations for good practice concerning the prevention of Legionella growth in drinking water installations but existing national regulations remain in force.

General recommendations

"Conditions for Legionella growth". The following conditions encourage Legionella growth:

- water temperature between 25 °C and 50 °C. To restrict the growth of Legionella bacteria, the water temperature shall be in a range that the bacteria will not grow or have minimum growth, wherever possible. Otherwise, it is necessary to disinfect a drinking water installation by means of a thermal treatment;
- stagnation of the water. To avoid long periods of stagnation, the water in every part of the drinking water installation should be used or flushed at least weekly;
- nutrients, biofilm and sediment within the installation including water heaters, etc. Sediment can support the growth of Legionella bacteria and it should be removed on a regular basis from e.g. storage systems, water heaters, non-flown through expansion vessels (e.g. once a year).

Regarding to this storage water heater, if...

1. the product is switched-off for a period of time [months] or
2. the water temperature is permanently maintained between 25 °C and 50 °C,

the Legionella bacteria could growth inside the tank. In these cases, to restrict the Legionella growth, it is necessary to perform the so called "thermal disinfection cycle".

This electro-mechanical storage water heater is equipped with a thermostat setable at a temperature higher than 60 °C; it means it is enabled to carry out a "thermal disinfection cycle" to restrict the Legionella growth inside the tank. This cycle complies with the hot water installations and relevant recommendations for Legionella prevention specified in the following Table of the CEN/TR 16355.

Types of hot water installation

| | Hot and cold water separately | | | | Mixed hot and cold water | | | | | |
|-----------------|-------------------------------|-------------------------------|--|----------------------------|--------------------------------------|-----------------------------------|--|--|--------------------------------------|-----------------------------------|
| | No storage | | Storage | | No storage upstream of mixing valves | | Storage upstream of mixing valves | | No storage upstream of mixing valves | |
| | No circulation of hot water | With circulation of hot water | No circulation of mixed water | Circulation of mixed water | No circulation of mixed water | Circulation of mixed water | No circulation of mixed water | Circulation of mixed water | No circulation of mixed water | With circulation of mixed water |
| Ref. in Annex C | C.1 | C.2 | C.3 | C.4 | C.5 | C.6 | C.7 | C.8 | C.9 | C.10 |
| Temperature | - | ≥ 50 °C ^e | in the storage water heater ^a | ≥ 50 °C ^e | thermal disinfection ^d | thermal disinfection ^d | in the storage water heater ^a | ≥ 50 °C ^e thermal disinfection ^d | thermal disinfection ^d | thermal disinfection ^d |
| Stagnation | - | ≤ 3l ^b | - | ≤ 3l ^b | - | ≤ 3l ^b | - | ≤ 3l ^b | - | ≤ 3l ^b |
| Sediment | - | - | remove ^c | remove ^c | - | - | remove ^c | remove ^c | - | - |

a Temperature ≥ 55 °C the whole day or at least 1 h per day ≥ 60 °C.

b The volume of water contained in the pipework between the circulation system and the tap which has the greatest distance to the system.

c Remove the sediment from the storage water heater in accordance with the local conditions but at least once a year.

d Thermal disinfection for 20 min at a temperature of 60 °C, for 10 min at 65 °C or for 5 min at 70 °C at every draw-off point at least once a week.




e The water in the circulation loop shall not be less than 50 °C.

- No requirement.

3. Technical Data

Basically Legionella can come up again when the water temperature drops below 55 °C.

Caution: Water temperature in the tank can cause severe burns instantly. Children, disabled and elderly are at highest risk of being scalded. Feel water before bathing or showering.






| Type | | SX 50 (E) | SX 80 (E) | SX 100 (E) | SX 120 (E) | |
|---|-----------|--|-------------|------------|-------------|------|
| Energy-efficiency class | | C *) | | | | |
| Rating power ¹⁾ | W | 750...4500 | 1000...6000 | | 2000...6000 | |
| Rating volume | l | 50 | 80 | 100 | 120 | |
| Weight (empty) | kg | 21 | 26 | 33 | 42 | |
| Installation | | vertical | | | | |
| Model | | see data plate | | | | |
| Max. working pressure | MPa / bar | 0,6 / 6 | | | | |
| Qelec | kWh | 6,422 | 6,405 | 12,557 | 12,541 | |
| V40 ²⁾ | l | 90 | 144 | 180 | 216 | |
| Heating time to approx. 85 °C with cold water inlet temperature 15 °C | 1 kW | h | 4,3 | 6,8 | 8,5 | 10,3 |
| | 2 kW | h | 2,1 | 3,4 | 4,3 | 5,1 |
| | 3 kW | h | 1,4 | 2,3 | 2,8 | 3,4 |
| | 4 kW | h | 1,1 | 1,7 | 2,1 | 2,6 |
| | 6 kW | h | 0,7 | 1,1 | 1,4 | 1,7 |
| Protection class | |    IP24D CE | | | | |

*) The declaration complies with the EU regulation No 812/2013. The product data sheet is attached at the end of this document.

1) The power rating varies depending on connection and operation mode

2) Volume of mixed water at 40 °C with storage content temperature of 60 °C and inlet temperature of 15 °C

For the technical characteristics of the appliance, please refer to the information provided on the data plate (label located near the water inlet and outlet pipes).

| | | | |
|---|---|---|---|
| Typ : SX XX (E) EU | |  | |
| Nr.: XXXXXX-XXXXXX | | | |
| Nenninhalt: XX l | | Behälter: St em | |
| Nennndruck: 0.6 MPa (6 bar) | | | |
| 3N AC 380-415V | 2N AC 380-415V | AC 220-240V | |
| 1/6;2/6 kW | 1/6;2/6;1/4;2/4 kW | 1/4;2/4 kW | |
| 50-60 Hz Nr XXXXXX XX XXXXX XXXXXX | | | |
|  |  |  IP24D |  |
| CLAGE GmbH Pirrolweg 1-5 21337 Lüneburg (Deutschland) | | | |

4. Installation

The following regulations must be observed:

- VDE 0100
- EN 806
- Installation must comply with all statutory regulations, as well as those of the local electricity and water supply companies.
- The rating plate and technical specifications
- Only intact and appropriate tools must be used
- The appliance must be connected to water supply first and be filled with water before connecting it to the power supply.
- The appliance must be installed and commissioned by a qualified technician in accordance with established regulations and local health and safety regulations
- The appliance must not be exposed to direct sunrays, even in the presence of windows
- Do not use or connect the appliance to a circulation line

CAUTION! For those nations that have taken on European norm EN 1487, the pressure safety device provided with the product does not comply with that norms. According to the norm, the device must have a maximum pressure of 0.7 MPa (7 bar) and have at least: a cut-off valve, a non-return valve, a control mechanism for the non-return valve, a safety valve and a water pressure shut-off device.

This appliance was designed to be installed only inside buildings in compliance with the applicable norms in force. Furthermore, installers are requested to keep to the following advice in the presence of:

In the case of walls made of bricks or perforated blocks, partition walls featuring limited static, or masonry different in some way from those stated, you first need to carry out a preliminary static check of the supporting system.

Installing the appliance

The wall-mounting fastening screws must be designed to support a weight that is three times higher than the weight of the water heater filled with water. Fastening screws with a diameter of at least 12 mm are recommended. An assembly template is supplied with the appliance for easier assembly (fig. 2 to 6).

1. Remove the assembly template from the packaging. Rest the assembly template on the connection pipes.
2. Trace the water heater fixing points and drill the holes.
3. Fasten the bracket to the wall (two brackets for model 120).
4. Hook the water heater onto the bracket.
5. For model SX 50/80/100: Ensure the water heater is plumb using the adjustable wall spacer C (fig.5).

Local norms could set forth restrictions regarding the installation in a bathroom environment. Therefore keep to the minimum distances foreseen by the applicable norms in force. The appliance should be installed as close as possible to the point of use to limit heat dispersion along the piping ("A" in fig. 4B).

Allow for a clearance of at least 50 cm under the appliance to provide access to the electrical components, this facilitating the maintenance activities.

Water connection

Before making the plumbing connection, you must flush the piping to be cleaned thoroughly to eliminate any residue or dirt that could compromise the proper operation of the water heater.

Connect the water heater inlet and outlet to resistant pipes or pipe fittings, as well as to the operating pressure, the temperature of the hot water that could at times reach well over 85 °C. We advise against the use of materials that cannot withstand such high temperatures.

If the safety valve outlet is not placed immediately above the overflow funnel, then it should be connected to a pipe with a continuous slope in a site protected against frost.

In the presence of particularly hard waters, there will be a considerable and rapid formation of limescale inside the

4. Installation

appliance, with a consequent loss in efficiency and damage to the electric heating element. The appliance must be decalcified regularly. In order to reduce limescale, you can soften the water in the cold water inlet by an appropriate drinking water suitable device.

Closed operation

Mount close to the tap from which the most hot water will be extracted. A design proofed safety valve combination is to be installed. In addition, if water pressure exceeds 0.48 MPa (4.8 bar), a pressure reducing valve is to be installed and adjusted accordingly. No shut-off valves may be installed between the safety modules and the reservoir. Discharge from the safety valve must always be open. The safety valve combination for closed operation must be accredited.

Note: In compliance with the Energy Conservation Act, the temperature of the water heater should be limited to 60°C for hot water pipes which exceeds a length of 5 meters.

Open operation

A suitable mixer tap should be installed for the open discharge operation. The tap outlet should always be kept free from obstructions. Only use CLAGE flow regulator for open storage water heater. A backflow prevention device should be connected to the cold water inlet.

Electrical connection

Structural prerequisites

- The appliance must be installed via a permanent connection. Heater must be earthed!
 - The electric wiring should not be injured. After mounting, the wiring must not be direct accessible.
 - An all-pole disconnecting device (e.g. via fuses) with a contact opening width of at least 3 mm per pole should be provided at the installation end.
 - To protect the appliance, a fuse element must be fitted with a tripping current commensurate with the nominal current of the appliance.
1. Disconnect the power supply e.g. via fuses and ensure that they cannot unintentionally be switched on.
 2. Remove lower cap by taking the four screws out (fig. 7, 8).
 3. Lead cable through the cable gland and cord grip and connect, then tighten the cable gland and cord grip (fig. 9).
 4. Connect the cable depending on the intended mode of operation as shown in fig. 12.1 or 12.2.

Check that the system is suitable for the maximum power absorbed by the water heater (please refer to the data plate) and that the cross-section of the electrical connection cables is suitable, and no less than 2.5 mm².

5. Initial operation

Operating modes

Single Power Operation

Connection without off-peak contact.

The appliance heats with the adjusted performance. The 'FAST' button is only used for the reset and diagnose functions.

Connection with off-peak contact.

If the 'FAST' button (fig. 1, ref. B) is activated, the device heats once to the configured temperature. All LED thermal capacity indicators (fig. 1, ref. 4,5 and 6) light up as soon as the configured temperature has been reached. Afterwards, the device turns itself off automatically.

Double Power Operation

Connection without off-peak contact.

The reservoir heats with the configured basic performance. The "FAST function" activates a heating cycle at higher installed power in order to accelerate the heating-up procedure. To start this function, press the 'FAST' button. The LED 'FAST' (fig. 1, ref. 3) lights up. The function turns itself off automatically, as the soon as the configured temperature has been reached. The LED 'FAST' turns off.

Connection with off-peak contact.

During off-peak time the device heats with the configured basic performance.

The "FAST function" activates a heating cycle at higher power in order to accelerate the heating-up procedure. To start this function, press the 'FAST' button. The LED 'FAST' lights up. The function turns itself off again automatically as soon as the configured temperature has been reached. The LED 'FAST' turns off. The rest of the time, the device does not heat. If the 'FAST' button is activated, the device heats once to the configured temperature. All 3 LED thermal capacity indicators light up as soon as the configured temperature has been reached. Afterwards, the device turns itself off automatically.

Boiler Mode




Connection without off-peak contact.

The device does not heat by default. If the 'FAST' button is activated, the device heats once to the configured temperature. All 3 LED thermal capacity indicators (fig. 1, ref. 4,5 and 6) light up as soon as the configured temperature has been reached. Afterwards, the device turns itself off automatically. Each further heating process must be started by pushing the button 'FAST'.

Power switch

Set the power switch "S1" to the correct operating mode on the electronic board. Set the desired load according to the connection examples.

The power switch is manufacturer set in position 5 for 50 (E), 80 (E) and 100 (E) models and in position 6 for 120 (E).

| Power Switch "S1" | Mode of Operation |
|---|--|
|  | <p>Double power switch positions 5 / 6 / 7 (see page IV)</p> |
|  | <p>Single power switch positions 1 / 2 / 3 / 4 (see page V)</p> |
|  | <p>Boiler mode switch positions 8 / 9 / 0 (see page V)</p> |

5. Initial operation

Danger of electric shock!

The power switch "S1" may only be operated in an unpowered condition!!

Double Power

Depending on the home installation, the following connection variations are possible:

- Variant A, (fig. 12.2)
If no low-tariff electricity is to be used, do not remove bridge between L1 and L1T.
- Variant B, (fig. 13)
Connect the output of the autotimer (delivered by the electricity provider) with L1 and L1T.
- Variant C, (fig. 14)
Connect switched phase L1T (connection for low-tariff power) to L1T terminal.
- Variant D, (fig. 15)
Connect switched phase L1 to terminal L1 and L1T.

Refer to the connection types recommended for double power (page VI fig. 12.2)



According to the duration of the off-peak period of either 8 or 4 hours, and the associated loads (refer to connection types on page VI), set the power switch "S1" to the correct positions, 5 / 6 / 7, of the double power set-up.

Single Power

Depending on the home installation, the following connection variations are possible:

Refer to the connection types recommended for single power (page V fig 12.1)

Set power switch "S1" on the electronic board to positions 1 / 2 / 3 / 4 "single power".

Boiler

Depending on the home installation, the following connection variations are possible: Refer to the connection types recommended for boiler switch (page V fig. 12.1) Set power switch "S1" on the electronic board to positions 8 / 9 / 0 "Boiler mode".

Finally, separate the appropriate circuit fig. (E1/E2/E3/E4) and the corresponding power-switch position "S1" from the enclosed adhesive foil and adhere to the pad provided. Fill out the information decal about the installed circuit and installed load and adhere to the outside of the cover.

Initial Use

1. Fill the reservoir and flush it out until water discharges from all hot water taps bubble free, otherwise the temperature sensor and retainer will be damaged and require replacing.
2. Check all water connections for leaking water.
3. Switch on the power supply to the appliance.
4. Press the "ON/OFF"-button (fig. 1; ref. A).
5. During heating, displaced water must drop from the discharge of the safety valve (closed operation) or out of the mixer tap (open operation). Monitor the first heating cycle.

Temperature Limit (fig. 11)

Set the temperature limiter (40/60 or 85°C) by the selector on PCB board. The appliance is factory-set at the position 85°C.

6. How to use

Adjusting the temperature

To turn the appliance on, press button ON/OFF (**fig. 1, ref. A**), indicator (**fig. 1, ref.1**), light will light up.

Select the desired temperature using button **C**, choosing between **MIN** (~ 40°C), **E** (~ 60°C) and **MAX** (~ 85°C), and the corresponding indicator light (**fig. 1, ref.7,8,9**) will light up to indicate the selected value.

Heating indicator light (**fig. 1, ref.2**), will stay on while the water is being heated. Once the selected water temperature has been reached, the heating is disabled and the heating indicator light is turned off.

If the temperature drops, after water is drawn for example, the heating is re-abled automatically. On first lighting the appliance will be set to the MIN temperature setting.

If the appliance is turned off at button ON/OFF or in case of power failure, it will resume from the last temperature setting when it is turned back on.

Use button FAST **B** to enable the fast heating feature. The fast indicator light (**fig. 1, ref.3**) will light up to notify you that the fast heating feature has been enabled.

Indicator lights **4,5,6** provide an indication as to the heat content of the appliance.

The appliance control panel was created to facilitate the various operations. For the different adjustments, it indicates the quantity of showers or baths possible.

We recommend you, to set the temperature of the storage water heater at 60°C to:

- reduce the formation of limescale;
- reduce heat dispersion;
- avoid the risk of bacteria proliferation.

When the appliance is powered (even if it is turned off), the anti-frost function is on.

7. Maintenance and cleaning

Maintenance work must only be conducted by an authorised professional.

Maintenance regulations

Before performing any maintenance operations and/or replacing any components disconnect the appliance from the electricity mains using the external switch. If necessary, empty out the water heater.

The following operations should be performed annually:

- Empty the appliance by turning off the main tap and allowing the water to drain from the inside through the inlet pipe, after opening the discharge valve and turning on one hot water tap and dismount the heating element.
- Carefully remove all limescale from the heating element parts; if you prefer not to use acids designed especially for this purpose, use non-metallic objects to break off the limescale crust that has formed, taking care not to damage the heating element's armour.
- We recommend you replace the seal each time you dismount the heating element.
- Check the condition of the anode; it wears progressively depending on the quantity of water distributed and prevents tank corrosion.
- The anode must be replaced when their total volume has decreased by more than 50% compared to its original volume.
- To reassemble the 5-bolt flange, the tightening torque should be between 7 and 10 Nm. You must respect the "criss-cross" type of tightening. To empty the appliance completely, unscrew the four screws from the cap (**fig. 7, 8**) and remove latter. Unscrew plug from the drain pipe (**fig.10 ref. 5**). The remaining water will flow out completely.

During reassembly, make sure that all components are put back in their original positions.

After routine or extraordinary maintenance, we recommend filling its tank with water and draining it completely so as to remove any residual impurities. Only use original spare parts.

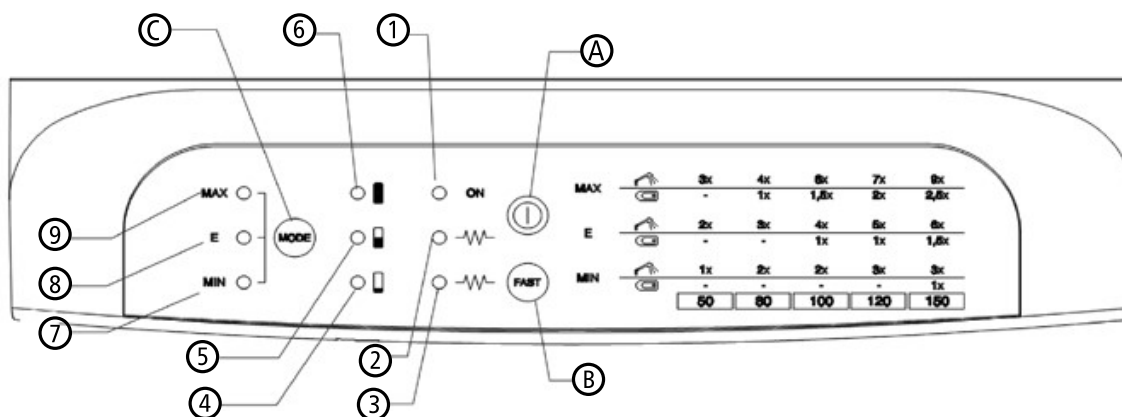
8. Trouble-shooting and service

If your device does not function as intended, it is usually due to a small detail. Please check whether or not the fault can be self-repaired according to the following indicators. You will thereby avoid the costs of an unnecessary repair service. In normal operations, the LED "ON/OFF" is constantly lit. If LED "ON/OFF" is blinking, this indicates an "error condition".

In case of fault, do not disconnect the power supply line. In order to possibly remedy the error condition oneself, try to reset the product as reference procedure:

RESET: If an error condition occurs reset the appliance by pressing the ON/OFF button until the appliance turn off. Then press the ON / OFF button again to turn it back on.

If the cause of the error condition does not exist directly after the reset, the device will return to its normal mode of function. Otherwise the device will again indicate an "error condition".



Diagnostic routines

In order to better define the error condition, the device uses diagnostic routines. Please activate the program as follows:

1. Push and hold the button "FAST" for at least 5 seconds.
2. The type of fault will now be displayed by the panel LEDs (1-9), as presented in the following table:

| Display (LED) Status | | | Panel LED | | | | | | Cause/ Failure | Solution | Who |
|----------------------|-----|-----|-----------|----|---------------|---|----|----|--|---|-------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | | |
| blinking | off | off | on | on | See below (*) | - | on | on | Internal electronic fault | Electronic board locked, wait 15mins and then reset; if the problem remains please contact technician | Customer/ Technician |
| blinking | off | off | on | - | See below (*) | - | - | - | Temperature sensor fault | Reset, if the problem remains please contact after sales service | Technician |
| blinking | off | off | on | on | See below (*) | - | - | - | Temperature fault between heating/sensor | | |
| blinking | off | off | on | - | See below (*) | - | on | - | Water temperature in reservoir too hot | | |
| blinking | off | off | on | - | See below (*) | - | - | on | The reservoir has heated without water | | |

8. Trouble-shooting and service

| | | | | | | | | | | | |
|----------|-----|-----|----|----|---------------|----|---|---|---------------------------|--|------------|
| blinking | off | off | on | - | See below (*) | on | - | - | Internal electronic fault | Reset, if the problem remains please contact after sales service | Technician |
| blinking | off | off | - | on | See below (*) | on | - | - | Internal electronic fault | | |

(*) this LED indicates whether or not the off-peak contact was correctly installed.

- The LED 6 is "on" if off-peak contact on.
- The LED 6 is "off" if off-peak contact out.

If the LED 6 is off during the off-peak period, the fault lies in the installation of the off-peak contacts. When installing the device without off-peak contact, the LED 6 is always on.

Note : In an "error condition", the device is out of order; If the fault could not be remedied, please contact the after sales service.

CLAGE GmbH

After-Sales Service

Pirolweg 1–5
21337 Lüneburg
Germany

Phone: +49 4131 8901-40

Fax: +49 4131 8901-41

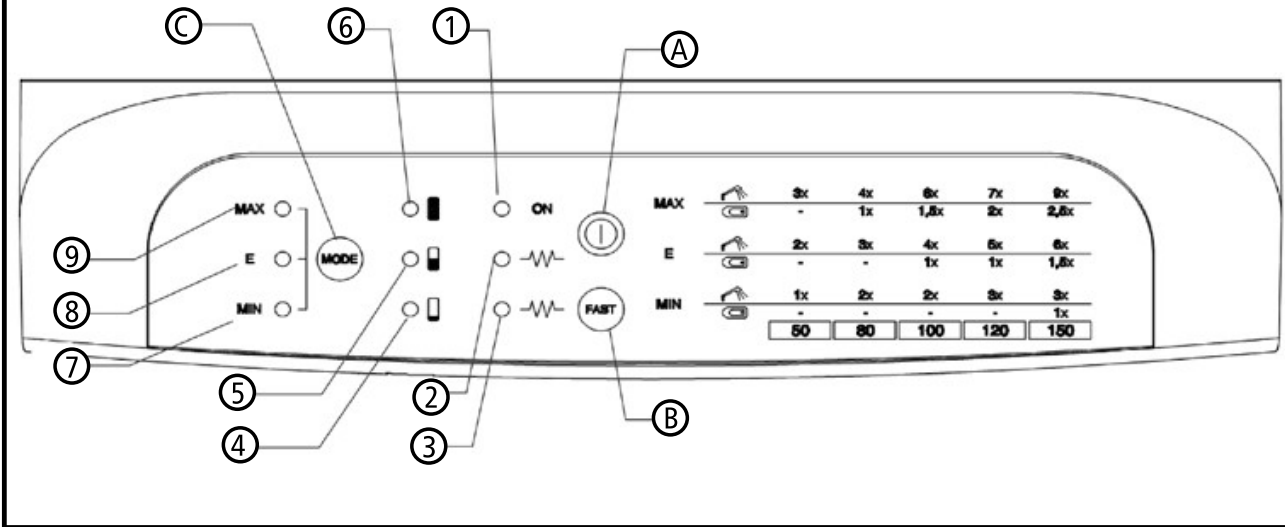
Email: service@clage.de

9. Environment and recycling

Your product was manufactured from high-quality, reusable materials and components. Please respect in case of discarding that electrical devices should be disposed of separately from household waste at the end of their service life. Therefore, please take this device to a municipal collection point that return used electronic devices to the recycling system. Disposing it correctly will support environmental protection and will prevent any potential negative effects on human beings and the environment that could arise from inappropriate handling of these devices at the end of their service life. Please contact your local authority for further details of your nearest designated collection point or recycling site.

Business customers: If you wish to discard equipment, please contact your dealer or supplier for further information.

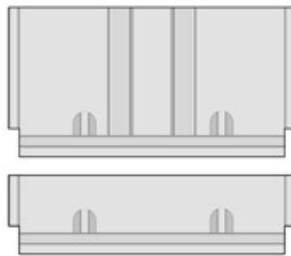
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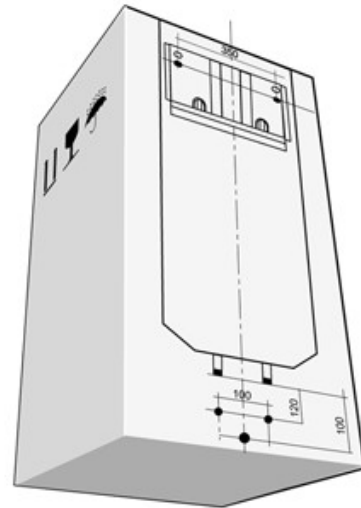
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1 x bei MOD. 50/80/100
1 for MOD. 50/80/100

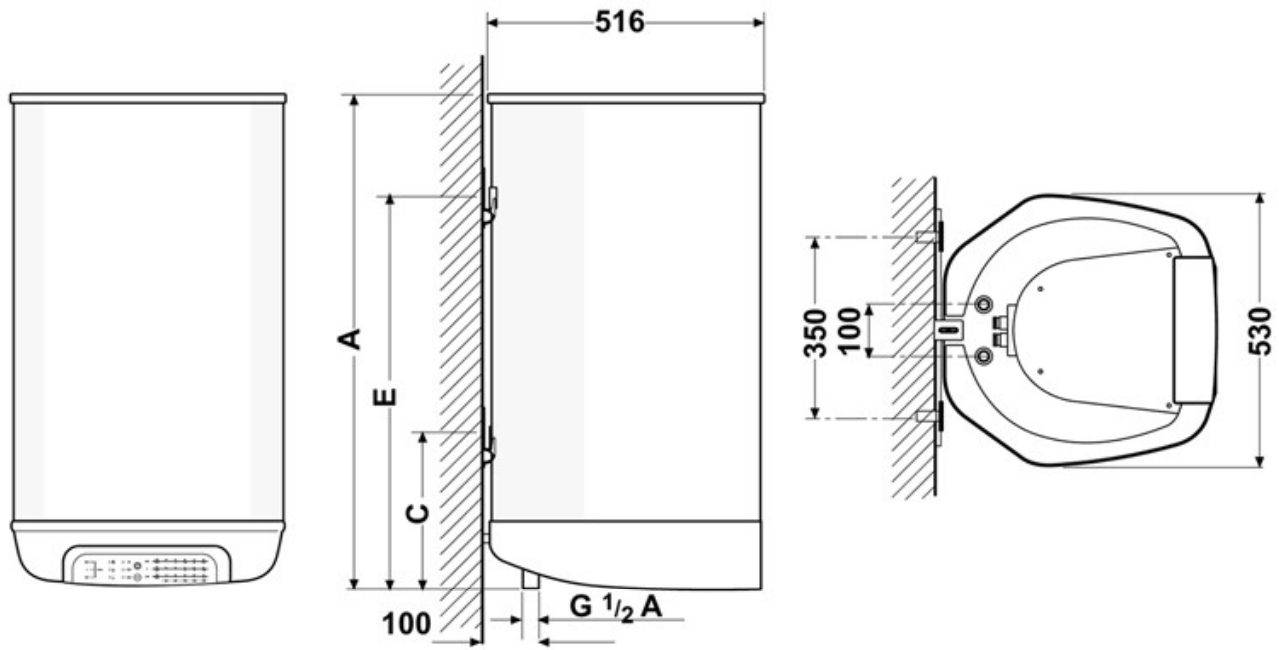


2 x bei MOD. 120
2 for MOD. 120



3

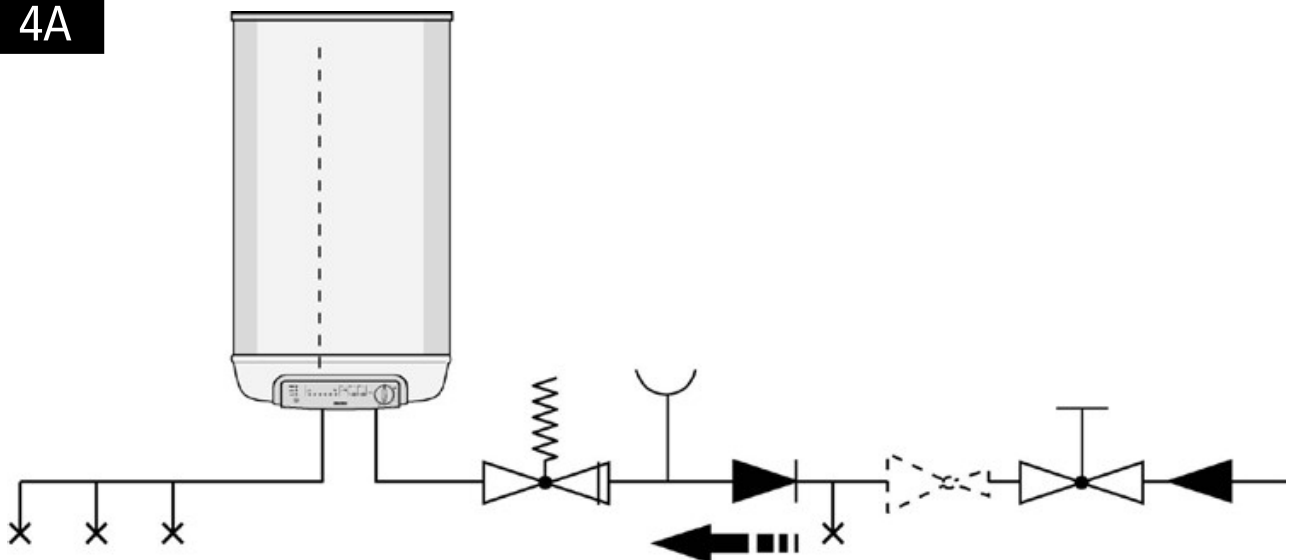
Dimensionen
Dimensions

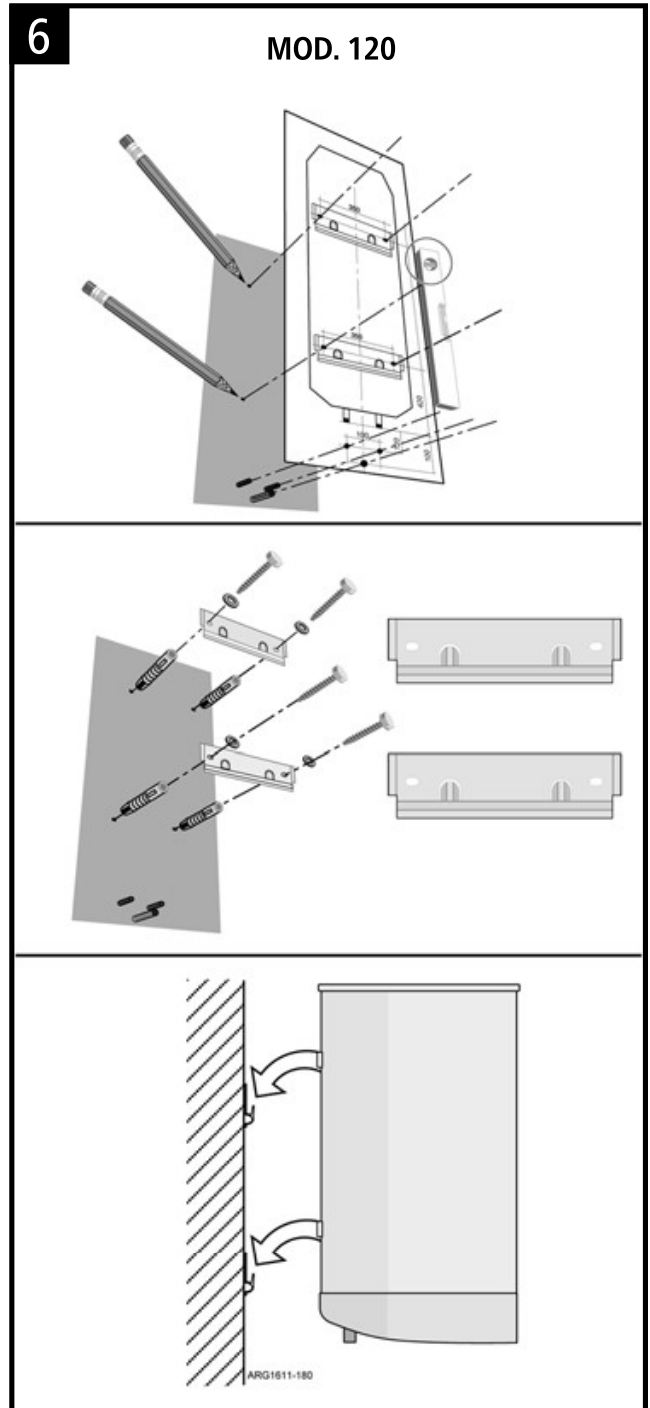
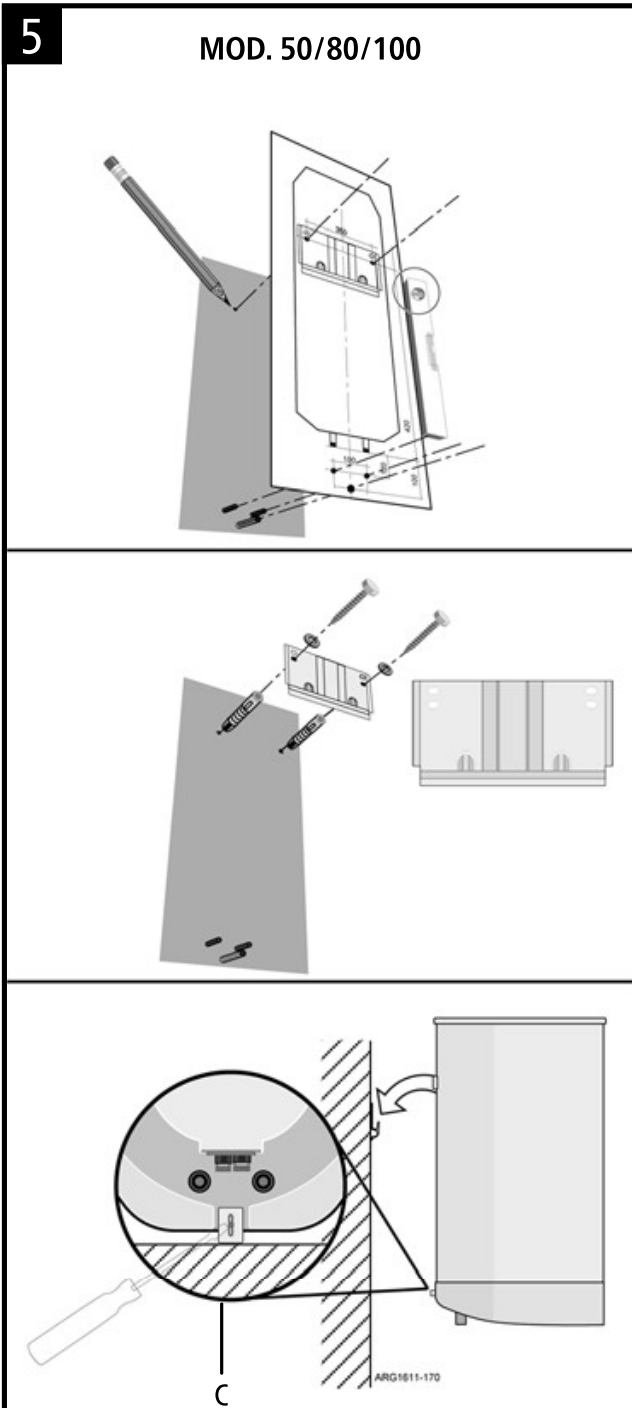
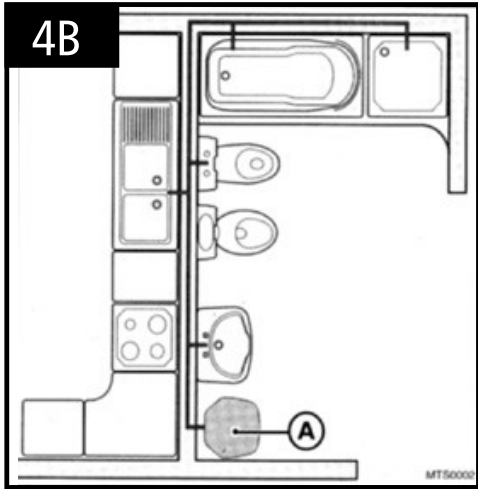


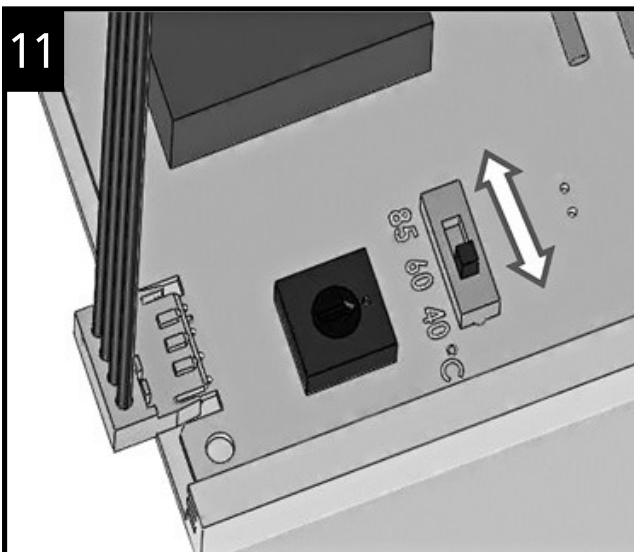
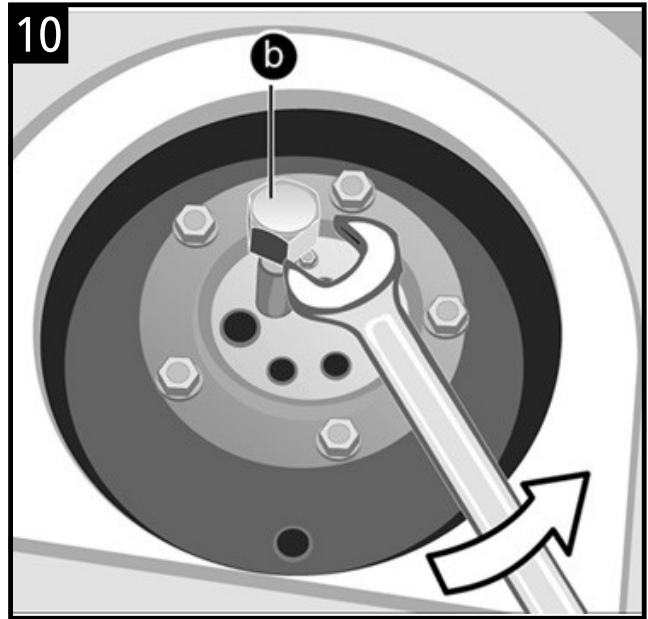
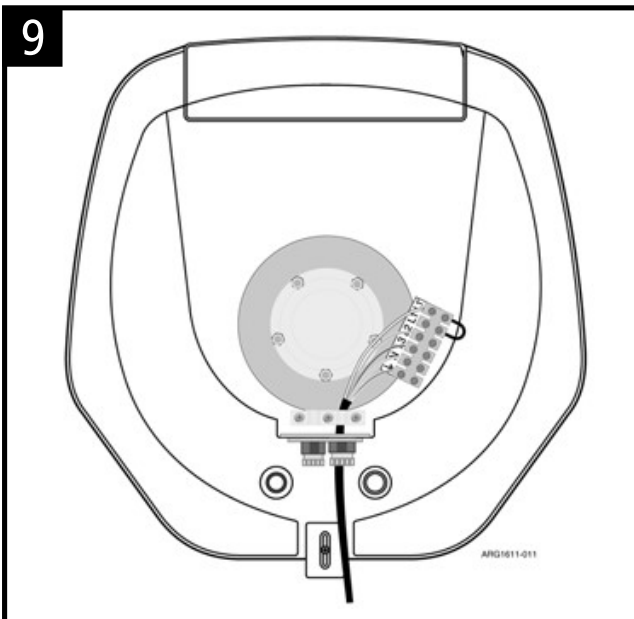
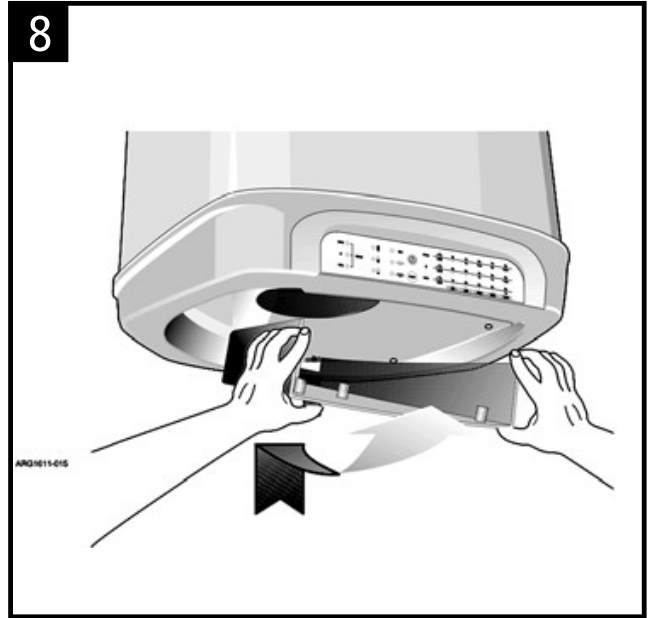
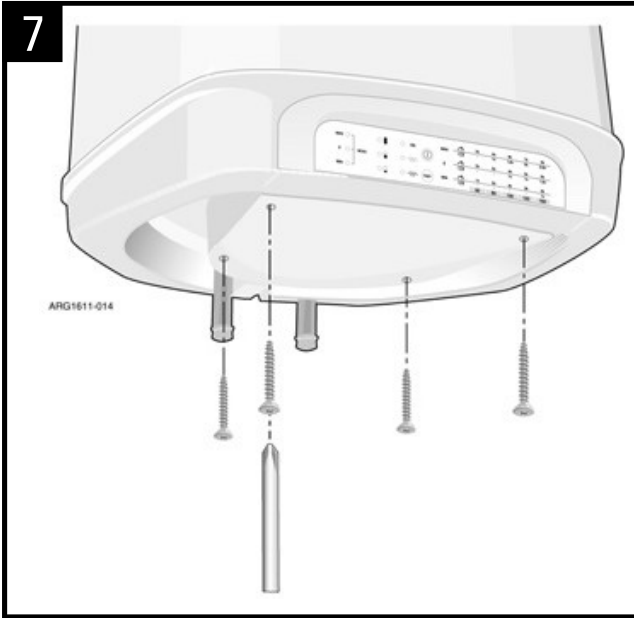
| TYPE | 50 | 80 | 100 | 120 |
|-------------|-----------|-----------|------------|------------|
| A mm | 613 | 841 | 993 | 1153 |
| C mm | -- | -- | -- | 300 |
| E mm | 550 | 900 | 900 | 900 |

ARG1811-082

4A



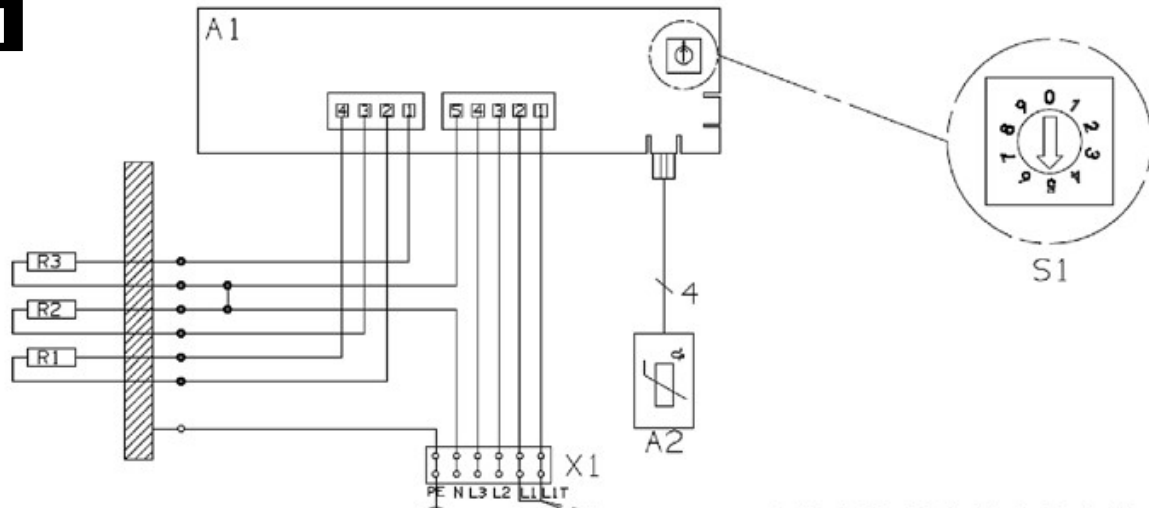




Anschlussarten Einkreis-/ Boiler Betrieb

Single power and boiler connection

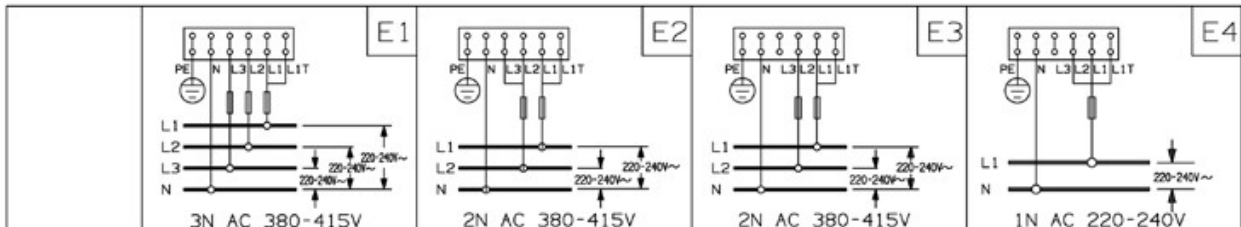
12.1



- A1 Elektronik/Electronics
- A2 Thermostoren/Thermal Sensor
- S1 Leistungsschalter/Rotary switch
- R1 Heizung/Heating element 1.5kW (50L)
2kW (80-150L)
- R2 Heizung/Heating element 1.5kW (50L)
2kW (80-150L)
- R3 Heizung/Heating element 1.5kW (50L)
2kW (80-150L)
- X1 Netzanschlussleiste
Main connection terminal

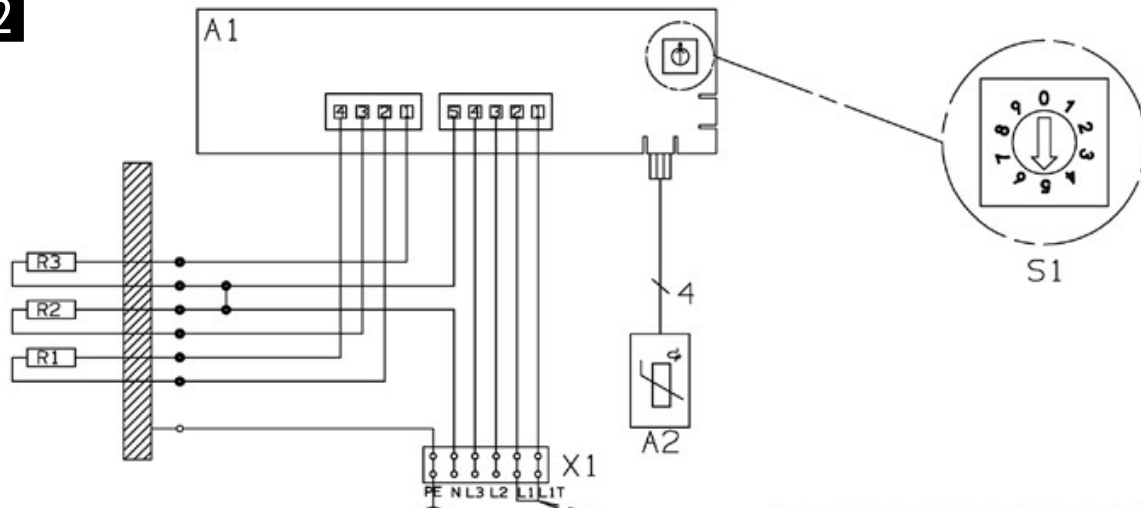
siehe folgende Tabelle/
see following table

Für Niedertarif-Anschluss:
Siehe Montage- und
Gebrauchsanweisung!
For off peak connection
see pictures below



| | Volumen/ Capacity | E1 | | | E2 | | | E3 | | | E4 | | |
|-----------------------|----------------------|---------|-------------|------|---------|-------------|---------|------|-------------|------|---------|-------------|------|
| | | 50L | 80/ 100L | 120L | 50L | 80/ 100L | 120L | 50L | 80/ 100L | 120L | 50L | 80/ 100L | 120L |
| Einkreis/Single power | Position | | | | | | | | | | | | |
| | 1 | | | | | | | | | | 0.75 kW | 1 kW | |
| | 2 | | | | | | | | | | 1.5 kW | 2 kW | |
| | 3 | 2.25 kW | 3 kW | 3 kW | 2.25 kW | 3 kW | 2.25 kW | 3 kW | 2.25 kW | 3 kW | | | |
| 4 | 4.5 kW | 6 kW | 6 kW | 3 kW | 4 kW | 3 kW | 4 kW | 3 kW | 4 kW | | | | |
| Boiler | 8 | 1.5 kW | 2 kW | 2 kW | 1.5 kW | 2 kW | 1.5 kW | 2 kW | 1.5 kW | 2 kW | | | |
| | 9 | 2.25 kW | 3 kW | 3 kW | 2.25 kW | 3 kW | 2.25 kW | 3 kW | 2.25 kW | 3 kW | | | |
| | 0 | 4.5 kW | 6 kW | 6 kW | 3 kW | 4 kW | 3 kW | 4 kW | 3 kW | 4 kW | | | |

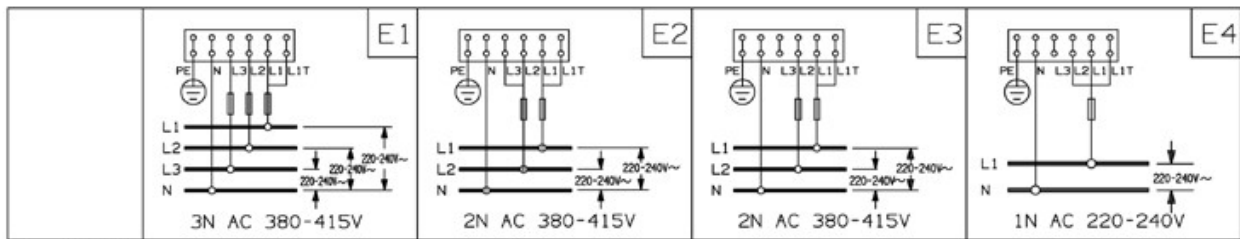
12.2



- A1 Elektronik/Electronics
- A2 Thermistoren/Thermal Sensor
- S1 Leistungsschalter/Rotary switch
- R1 Heizung/Heating element 1.5kW (50L)
2kW (80-150L)
- R2 Heizung/Heating element 1.5kW (50L)
2kW (80-150L)
- R3 Heizung/Heating element 1.5kW (50L)
2kW (80-150L)
- X1 Netzanschlussklemme
Main connection terminal

siehe folgende Tabelle/
see following table

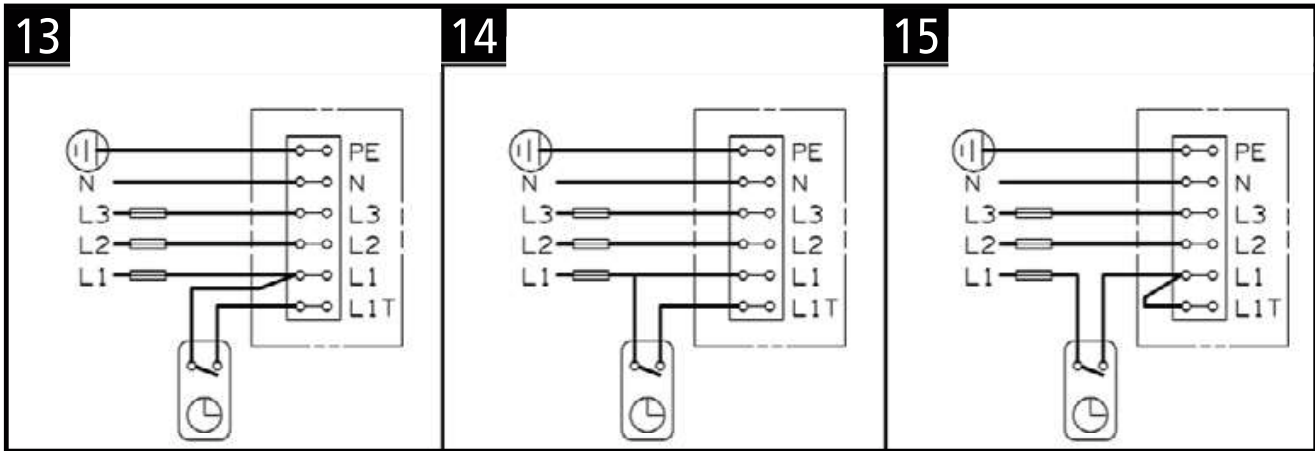
Für Niedertarif-Anschluss:
Siehe Montage- und
Gebrauchsanweisung!
For off peak connection
see pictures below



| | | E1 | | | E2 | | | E3 | | | E4 | | |
|------------------------|----------|-------------------------|----------------|----------------|-----------------------|----------------|----------------|----------------|-------------|------|----------------|-------------|----------------|
| | | 3N AC 380-415V | | | 2N AC 380-415V | | | 2N AC 380-415V | | | 1N AC 220-240V | | |
| Volumen/ Capacity | | 50L | 80/ 100L | 120L | 50L | 80/ 100L | 120L | 50L | 80/ 100L | 120L | 50L | 80/ 100L | 120L |
| Position | | | | | | | | | | | | | |
| Zweikreis/Double-power | 5 | 0.75/ 4.5 kW (8h) | 1/6 kW (8h) | | 0.75/ 3 kW (8h) | 1/4 kW (8h) | | | | | | | |
| | 6 | 1.5/ 4.5 kW (4h) | 2/6 kW (8h) | 2/6 kW (8h) | 1.5/ 3 kW (4h) | 2/4 kW (8h) | 2/4 kW (8h) | | | | | | |
| | 7 | | | 3/6 kW (4h) | | | | | | | | | 3/4 kW (4h) |

Niedertarif-Anschlussarten Zweikreis

Off peak double power connection



Vom Elektrizitäts-Versorgungs-Unternehmen geschaltet.

Connected by electricity supply company

Die Variante 15 darf auf keinem Fall mit der Anschlussart E4 verwendet werden!

The variant 15 must not be used with E4 connection, in any case!