

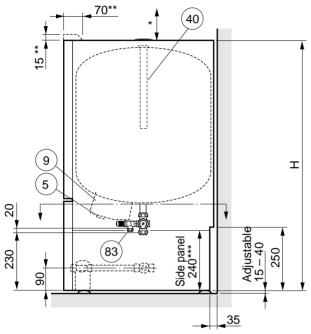
MOS GB 0049-1 611387 ER 56 SE/FI 9812-2

# INSTALLATION AND MAINTENANCE MANUAL COMPACT-E 150, 200, 300

ENAMELLED ELECTRIC WATER HEATER

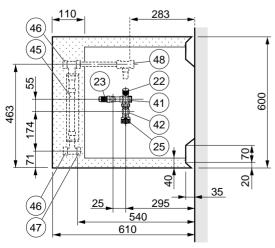
## **Erecting the water heater**

Unscrew the water heater from the pallet. Screw the plastic feet (supplied) into the leg frame. To adjust the water heater so that it is upright, screw the plastic feet in or out as necessary.



H: COMPACT-E 1501 120 mm COMPACT-E 2001 310 mm COMPACT-E 3001 710 mm

- \* Make sure that inspection is possible.
- \*\* Space required for removal of upper front access panel
- \*\*\* The lower part of the side panels on COMPACT-E can be removed during the installation work. This gives easier access from the sides.



### NOTE:

Pipes must not be run in the area indicated by dots.

## **Pipework installation**

The water heater may only be installed vertically. All the connections have compression ring couplings for copper or plastic pipe. If plastic or annealed copper pipes are used, an internal support sleeve must be fitted. The mixer valve (25) of the water heater must be set to the desired hot water temperature. Turning the mixer valve knob anticlockwise increases the hot water temperature. The temperature can be set between 40 and 65 °C.

A pipe must be run from the safety valve to a suitable drain. The size of the pipe must be the same as the safety valve ( $\emptyset$  15 mm). The drain pipe must be run with a fall to prevent water traps and must be protected from frost. The outlet of the overflow pipe must be visible.

Thanks to the sliding coupling, a 220 or 190 mm water meter can be used with water meter coupling (45). In the fitting piece there is a strainer which is removed at the same time as the fitting piece at water meter installation. A water meter kit must be positioned in accordance with current standards.

## Equipment

- 9 Connection box containing:
  - 4 Terminal block
  - 5 Combined thermostat and temperature limiter
  - 6 Immersion heater (stainless), 3 kW (or 6 kW)
- 22 Shutoff valve with non-return valve function
- 23 Safety/drain valve
- 25 Mixer valve
- 40 Anode 3/4" (R 20), socket wrench size 27 mm COMPACT-E 150 200 300 Length (mm) 570 570 775
- 41 Cold water inlet, compression ring coupling, Ø 22 mm
- 42 Mixed water, compression ring coupling, Ø 22 mm
- 83 Drain pipe connection for safety valve and

draining, compression ring coupling, Ø 15 mm. Accessories:

Water meter kit comprising:

- 45 Water meter bracket with sliding fitting piece
- 46 Shutoff valves for water meter coupling
- 47 Cold water inlet. R 25 male
- 48 Cold water outlet. Compression fitting, Ø 22 mm

| Approximate heating-up time (hours)        |             |           |           |
|--|-------------|-----------|-----------|
| Model                                      | 1 kW        | 3 kW      | (6 kW)    |
| 150  | 6.0 - 12.0  | 2.0 - 4.0 | 1.0 - 2.0 |
| 200  | 8.0 - 15.5  | 2.5 - 5.0 | 1.5 - 2.5 |
| 300  | 11.5 - 22.5 | 4.0 - 7.5 | 2.0 - 4.0 |
| Heating-up time from 10 °C to 45 or 80 °C. |             |           |           |

COMPACT-E

# **Electrical installation**

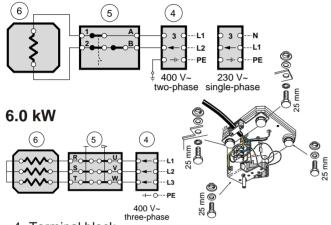
**NOTE:** The electrical installation and any service work must be done under the supervision of a qualified electrician. The water heater must be connected via an isolator switch which disconnects all poles of the supply. The connecting cable must be connected to the terminal block (4) in the connection box (9) in accordance with the markings on the terminals and must be fitted with strain relief; see also the wiring diagram in the water heater connection box.

The only power rating available with single-phase installation is 1.0 kW.

**NOTE:** The water heater must be filled with water before the power is switched on.

## Circuit diagram

## 3.0 kW (standard version)



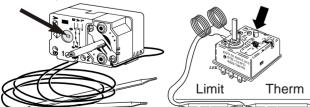
- 4 Terminal block
- 5 Combined thermostat and temperature limiter 6 Immersion heater, stainless
- 3 Immersion heater, stainless 3 kW: RAR 14 - 112 or 6 kW: RAR 38

## **Dealing with malfunctions**

If the water does not get hot, check that the fuses at the distribution board are OK. If the fuses are all OK, the reason may be that the temperature limiter has tripped because of a fault in the water heater. When the fault has been corrected, the temperature limiter can be reset (see illustration). This must be done under the supervision of a qualified electrician.

Check the setting of the mixer valve (25). Wait a few hours without drawing off any hot water and check whether the temperature has risen. If there is no hot water, contact the installer.

At 6 kW power, the electrical circuit is fitted with an "intrinsically safe" temperature limiter. If the water heater has been exposed to a low temperature, this temperature limiter may have tripped. Check that the reset button is in (see illustration).



Two-phase installation

Three-phase installation



## Inspection and maintenance

The safety valve must be checked regularly, about four times a year. To check the safety valve, turn its knob anticlockwise. Water should flow out through the safety valve drain pipe. If not, the valve is faulty and must be replaced. Sometimes a small amount of water escapes from the safety valve after hot water has been drawn off. This is because the cold water entering the water heater expands, causing the pressure to rise and opening the safety valve.

## Filling

The water heater must be filled with water before the power is switched on. This is the filling procedure:

- 1 Check that the safety/drain valve (23) is closed.
- 2 Open the shutoff valve (22).
- 3 Release the air from the water heater by opening a hot water tap. When nothing but water comes out of the hot water tap you can turn off the tap.

The water heater is now full and you can switch on the power.

## Draining the water heater

This is the procedure for draining the water heater:

- 1 Isolate the water heater completely from the power supply by removing its fuses at the distribution board.
- 2 Close the shutoff valve (22) (turn fully clockwise).
- 3 Open the safety/drain valve (23) (turn slowly anticlockwise so that it stays up).

**NOTE:** The heater is drained through the safety valve drain pipe. Watch out for water splashes.

4 Open all hot water taps to let air into the system. If this is not enough, disconnect the pipe coupling (marked VV) on the mixer valve.

## Anode

The water heater is fitted with a magnesium anode (40) which provides extra corrosion protection. The anode is consumed partly by sacrificing itself for pores in the enamel, partly by self-consumption depending on the composition of the water. Check the anode **within a year**. After this, check it regularly in relation to its consumption. When the anode is new its diameter is about 21 mm. When its diameter (at the most consumed point) has decreased to below 10 mm it must be replaced. If the anode has not been consumed at all after a year, the conductivity of the water may be low. Analysis of the water is recommended.

#### Replacing the anode

Switch off the electric power supply to the water heater. Shut of the incoming water supply. Release the pressure in the heater by opening the lowest hot water tap. Remove the plastic cover on the top of the water heater and unscrew the anode (40) using a 27 mm socket wrench. Anode length: see "Equipment". When replacing an anode in a confined space, one option is to use a chain anode. This requires only about 200 mm above the water heater to the ceiling. To avoid the inconvenience of repeated inspections/replacement of anodes, it is possible to fit a DC anode (accessory). This type of anode is not physically consumed and therefore there is no need to remove it for checking.

COMPACT-E



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