

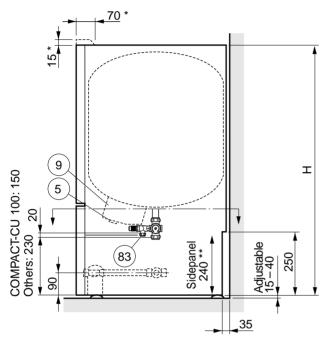
MOS GB 0049-1611386ER 56SE 9733-1

# INSTALLATION AND MAINTENANCE MANUAL COMPACT-CU 100, 200, 300

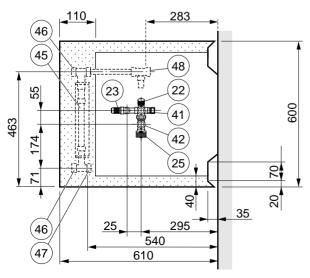
COPPER-LINED ELECTRIC WATER HEATER

### **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-CU 100 820 mm COMPACT-CU 200 1 310 mm COMPACT-CU 300 1 710 mm
- \* Space required for removal of upper front access panel.
- \*\* The lower part of the side panels on COMPACT-CU 200 and 300 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 drain 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
- 41 Cold water inlet. Compression fitting, Ø 22 mm
- 42 Mixed water. Compression fitting, Ø 22 mm
- 83 Drain pipe connection for safety valve and draining. Compression fitting, Ø 15 mm
- 84 Vacuum valve

#### 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

nouting up time			
Approximate heating-up time (hours)			
Model	1 kW	3 kW	(6 kW)
100	4.1 - 8.1	1.4 - 2.7	0.7 - 1.4
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

Heating-up time from 10 °C to 45 or 80 °C.

# **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.

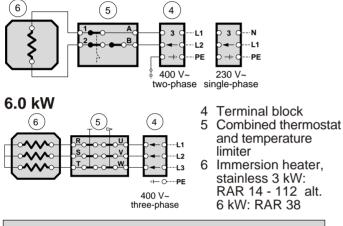
The connecting cable must be connected to the terminal block (4) in the connection box (9) in accordance with the markings on the terminals and must be fitted with strain relief; see also the wiring diagram in the connection box

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)



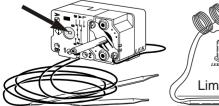
# **Dealing with malfunctions**

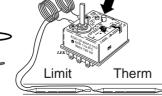
If the water does not get hot, check that the fuses at the distribution board are OK. If the fuses are all OK, the reason may be that the temperature limiter has tripped because of a fault in the water heater. When the fault has been corrected, the temperature limiter can be reset (see illustration).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





Two-phase installation

Three-phase installation COMPACT-CU





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.

# 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.

## 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.

#### Service

If service is needed, contact the main contractor, State the manufacturing number and the date of installation.

**NOTE:** All work in the electrical connection box must be done under the supervision of a gualified electrician

Only electrical equipment supplied by NIBE AB, Markaryd may be used.



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