

# **Assembly instruction**

## **Retrofitting or replacement of screw-in electrical heater**

**Issue: 01-14**

## Assembly instruction

### 1.) Disconnect the water supply.

### 2.) Dismantle the insulation

- PU half-shells: Remove the rubber sections. Loosen the tension locks using an 8 mm hex tip screwdriver. Remove the thermometer and slide the half-shell forward.
- Soft foam insulation: Loosen the tie on the rear side of the tank. Remove the thermometer. Remove the covers and remove the soft foam matt by pulling it forward.

### 3.) Empty the reservoir

#### 4.) A.) Subsequent installation:

Remove the brass plug on the free 1 1/2" connector.

#### B.) Exchanger of a screw-in electrical radiator

Dismantle the defective electric heating system.



When using a liquid sealant, the cap must be warmed up to approx. +90°C. Tow insulation can be removed without warming up. New parts can be sealed using hemp and Fermit or a liquid sealant. When using a liquid sealant, the area of application must be carefully observed.

#### C.) Remove all sealant residues from the inner thread of the splice, slightly roughen the thread of the new electric heating system and screw in the radiator. The electrical connector must point downwards.

#### D.) Dismantle the brass cap of the 3/4" nipple located above the electric heating system. Screw in the overheating protection thermostat. Observe the instructions.

#### E.) The insulation must be cut out where appropriate during the subsequent installation. The electric heating system requires a Ø 65 mm opening and the overheating protection thermostat requires a Ø 35 mm opening.



#### Only in heat recovery reservoirs with built-in heat exchangers:

The PE riser pipe of the heat recovery exchanger must be shortened. The pipe must end approx. 10 cm below the electric heating system. To shorten the pipe, the tank's flange cover must be opened. In tanks with a hand hole in the upper dished end, the dismantling/installation of the riser pipe can also be done through the hand hole. Do not forget about a new flange seal!

#### F.) Refill the reservoir with water and inspect it for tightness.



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**G.) Establish electrical connection.**

Heating systems with a power of 2 kW can be connected directly to 230 V, 50 Hz. 3 - 4.5 - 6 kW heating systems require a contactor for switching (see circuit diagram on the following page).

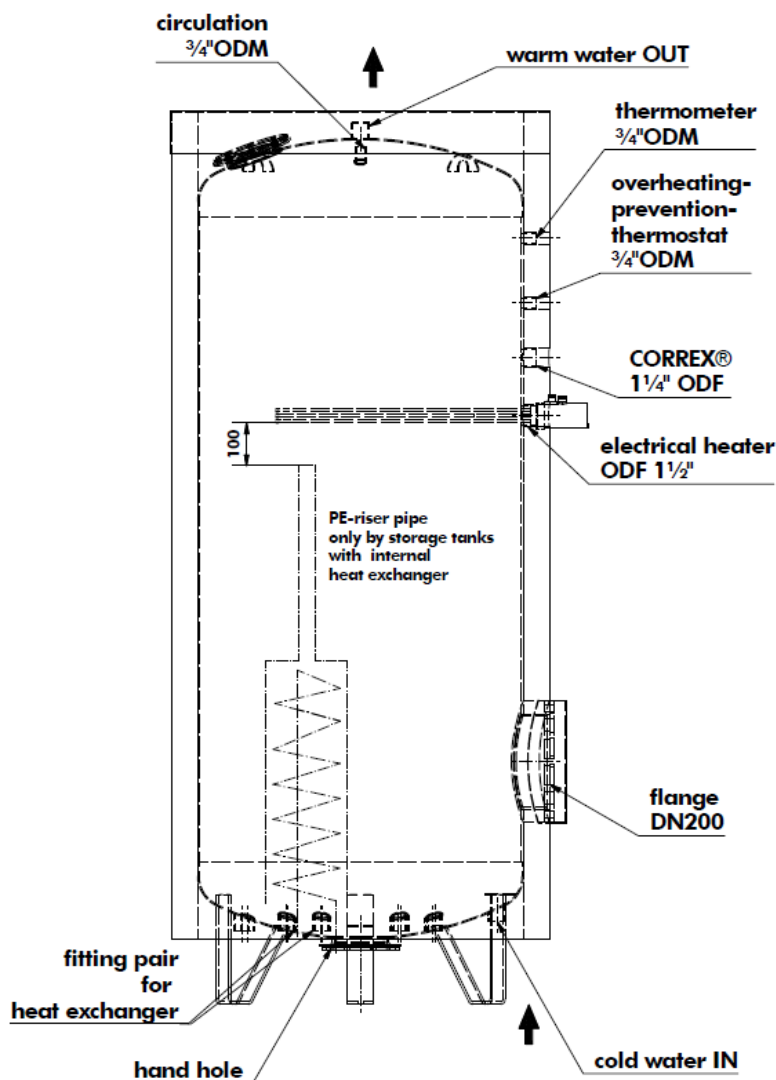


Electrical connections must be established according to the local electrical supply regulations and according to VDE 0100.

The electric heating system supplied by DK is a component specifically intended for installation in steel tanks coated with enamel paint. The heating rods are electrically insulated to the ground conductor of the reservoir. The metal parts of the installed thermostat may not contact the body of the heating system.

**H.) Reinstall the reservoir's insulation in a sequence reverse to that described in section 2. Plug the thermometer.**

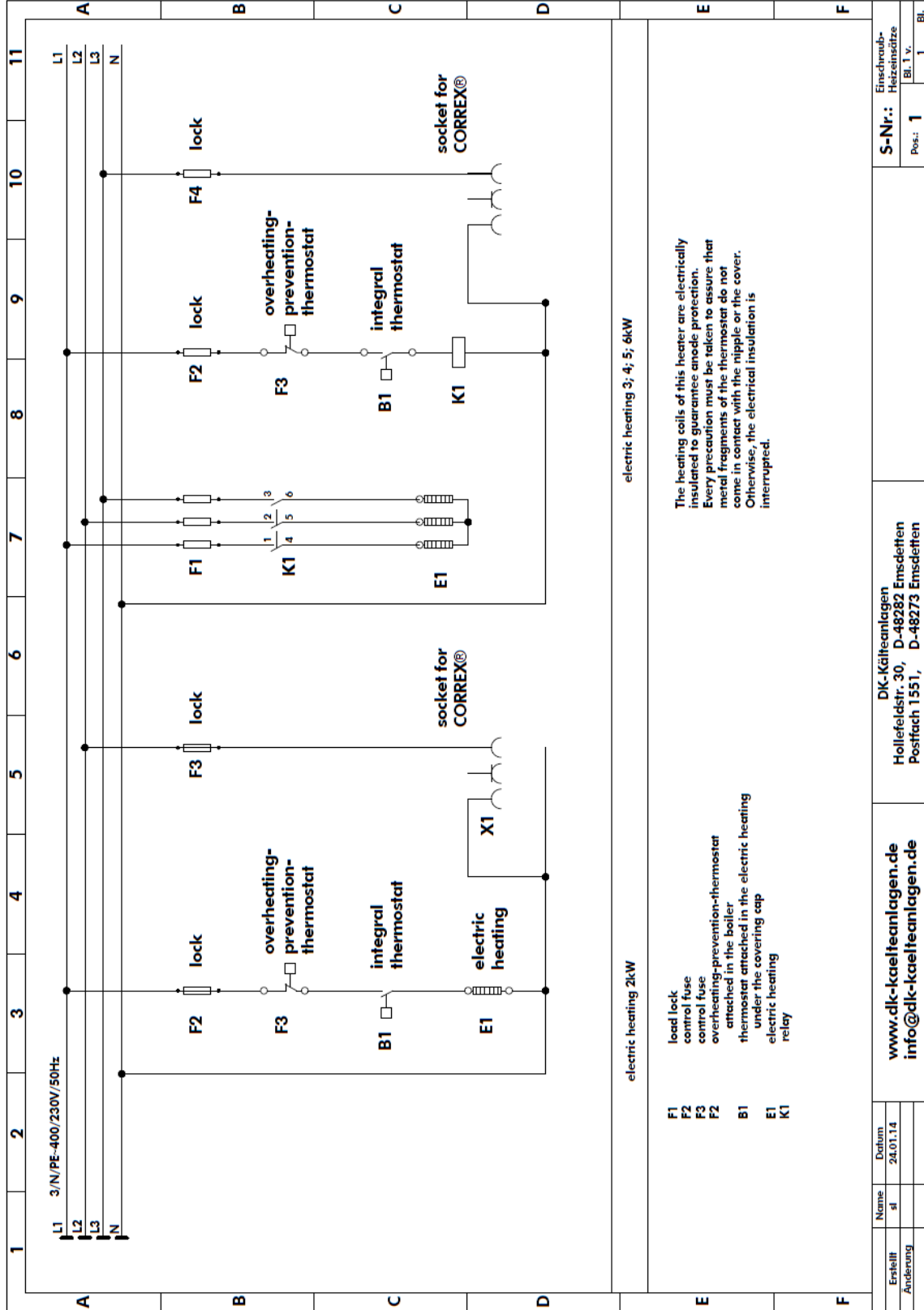
## Installation Drawing





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# Wiring Diagram



electric heating 3; 4; 5; 6kW

electric heating 2kW

The heating coils of this heater are electrically insulated to guarantee anode protection. Every precaution must be taken to assure that metal fragments of the thermostat do not come in contact with the nipple or the cover. Otherwise, the electrical insulation is interrupted.

- F1 load lock
- F2 control fuse
- F3 overheating-prevention-thermostat
- B1 thermostat attached in the boiler under the covering cap
- E1 electric heating
- K1 relay

Erstellt	Name	Datum	<b>S-Nr.:</b> Pos.: 1
Änderung	#	24.01.14	
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