# **ELK - 213**

**ELECTRIC HEATER** 









# Design

The ELK-213 has a 7-litre, steel pressure vessel. The pressure vessel is designed and manufactured in accordance with current pressure vessel standards (PED 97/23 EC § 3.3) for a maximum working pressure of 3.0 bar (0.3 MPa).

The 30 mm polyurethane insulation is enclosed in a durable, lacquered steel jacket.

#### Installation

The electric heater is installed vertically. Leave at least 500 mm free space above in case the immersion heater needs replacing.

The riser and return connections have male G 50 threads. The draining connection has female G 20 threads and a plug, which can be easily removed if the connection needs to be fitted with a drain cock. The draining connection can also be used as a return connection.

### **Electrical equipment**

There are dials on the control panel of the electric heater for power switch and operating thermostat, and reset buttons for the temperature limiter and fuse.

The electrical components are housed behind the black, impact-resistant, polystyrene, protective cover. This includes the time relay, which delays any connection of outputs over 6 kW for two hours following a power failure, in compliance with the recommendations of the Swedish Association of Electricity Supply Undertakers.

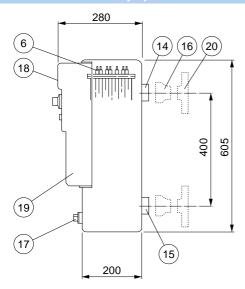
The power output is controlled by three contactors, with each one controlling its own symmetrical three-phase group of  $6-4-3\,\mathrm{kW}$ . The power output as set at the factory is 9 kW, but outputs of 7, 11 or 13 kW can be obtained by rewiring. The immersion heater is 500 mm long and is installed from the top of the electric element.

The electrical connection is prepared for a two-stage load protection with non-potential contacts. There is also a terminal block and a pump fuse under the cover.

Compact electric element



# Dimensions and equipment



#### **Equipment**

- 1 Terminal block
- 2 Power switch
- 3 Temperature limiter
- 4 Thermostat three-pole, three-step
- 6 Immersion heater
- 7 Overcurrent protection device
- 8 Terminal block, switch-over
- 9 Time relay
- 10 Contactor
- 14 Connection, riser, G 50 ext.
- 15 Connection, return, G 50 ext.
- 17 Draining connection, G 20 int. with plug
- 18 Protective plastic cover
- 19 Connection area
- 21 Contactor
- 22 Contactor

#### Accessories

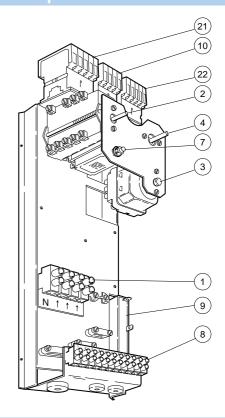
- 11 Circulation pump
- 16 Reducing socket G 50 G 25 int.
- 20 Counter flanges G 50 SMS 2023 DN 50 PN 6

# Technical specifications

Volume	7 litres
Height	605 mm
Diameter	200 mm
Voltage	380 - 400 V~ three-phase + N
Enclosure class	IP 21
Output	7 – 13 kW
Standard delivery output	9 kW
Working pressure	3 bar (0.3 MPa)
Net weight	18 kg
Pressure vessel	PED 97/23 EC § 3.3

We reserve the right to make changes in design and dimensions without prior notice.

# Component positions



# Electrical circuit diagram

