Assembly and Installation Instructions
Electric Heat Exchanger of the Series D-EWT Neo Compact
(Single Phase and Three Phase)

If you do not pay proper attention to these installation instructions the manufacturer cannot accept liability for any resulting damage to the device itself, the environment, property, or personal injury.

Your safety is our concern!

These Electric Heat Exchangers consist of a plastic shell and a built-in electric heating element made of Incoloy 825 or titanium. They are pre-assembled with a contactor control and a one-meter cable for easy connection to the electric grid.

1. Purpose:

These Electric Heat Exchangers are made to heat bathing water in swimming pools and whirlpools while the pump is running. It is not permitted to change and/or modify the device without consulting the manufacturer.

2. Safety Warning:

2.1 This device has not been designed for use by individuals (including children) with physical, mental, or sensory disabilities, or people who lack the necessary experience and/or knowledge unless under the supervision of someone entrusted with their safety or instructed by that person in how the device should be used.

2.2 Only a specialized electrical technician (after VDE0105) may operate the device following the DIN VDE 0100 safety standards.

2.3 An FI – safety switch (0,03A) and a circuit breaker need to be installed into the power supply.

2.4 The control box must be connected to the ground wire (protective earth).

2.5 The control box may only be opened by a specialized electrician in case of a defect. The device must be carefully separated from the electric grid.

3. Important:

3.1 Anybody involved with the installation, start-up, use, maintenance, and/or repair of the Electric Heat Exchanger must be qualified and carefully follow the instructions.

3.2 The specific water resistance at 15°C must not be less than 550 kilo ohm x cm. This means that, considering the specified limits (see below), it will range between 1.5 mega ohm x cm and 550 kilo ohm per cm.

4. Fire Hazard:

In case of improper handling or failure of all safety devices, the electric heat exchanger can, in extreme cases, reach dangerous temperatures.

4.1 Do not install the device near flammable material.

4.2 If the unit is mounted to the wall, especially if the construction material is easily flammable, a heat resistant plate must be inserted between the Electric Heat Exchanger and the wall. That plate should be at least 10 cm longer and wider than the Electric Heat Exchanger.

4.3 Do not use covers or insulation.

5. Safety Devices:

5.1 The electric heat exchanger is protected by three safety devices.

a) Control thermostat 0 °C bis 40 °C

b) Safety thermostat 50 °C

c) Flow switch

5.2 The safety devices will shut down the electric heat exchanger when unacceptable values are reached.

5.3 The 12-18 kW models and the 6 kW Mono are provided with a bimetal at 55°C. This serves as protection for the control system.

5.4 In the control box there is a 1A fuse for additional protection of the control system.

6. Corrosion Prevention:

6.1 Be careful not to wash any metals into the Electric Heat Exchanger when connecting it to the water circuit.

6.2 The Electric Heat Exchanger must be mounted so it can always be completely full of water or completely empty. During off season it can also be completely drained.

6.3 To avoid corrosion, make sure not to exceed the following water parameters:

AISI:	Chloride content: max. 500 mg/l Free chlorine: max. 1 mg/l pH: max. 6,8 – 7,8	**Ti:**	Chloride content: max. 3000 mg/l Free Chlorine: no limit PH: max. 6,8 – 7,8 Salt: max. 3%

Be careful: The disinfection device should be installed after the heat exchanger in a way so that neither chemicals, nor gases can enter it while it is switched off.

7. Frost:

During frost the Electric Heat Exchanger needs to be completely empty.

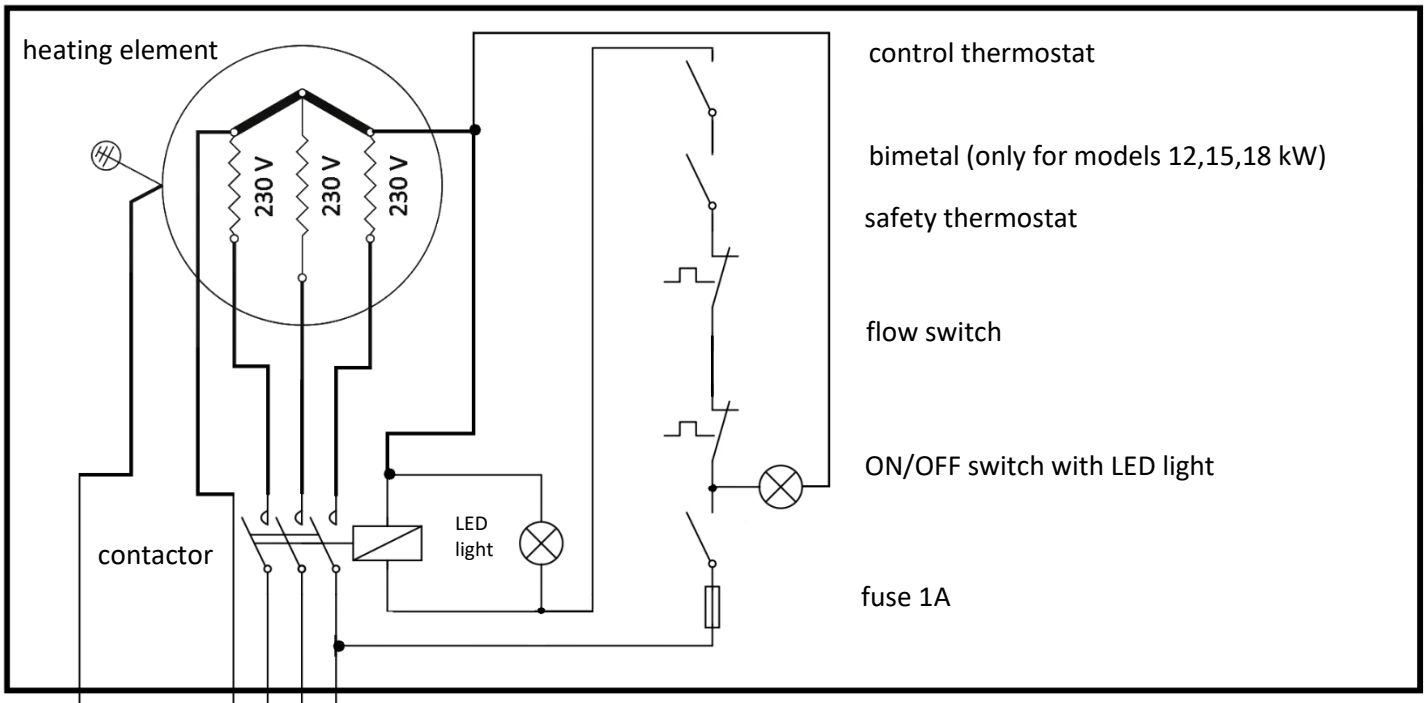
8. Operating Pressure:

Do not exceed the 2,5-bar permissible operating pressure.

9. Minimal Quantity of Flow:

Models 1,5 -3kW: 3800 l/h, Models 6- 18: kW 5000 l/h

10. Circuit Diagram 3X 400V:



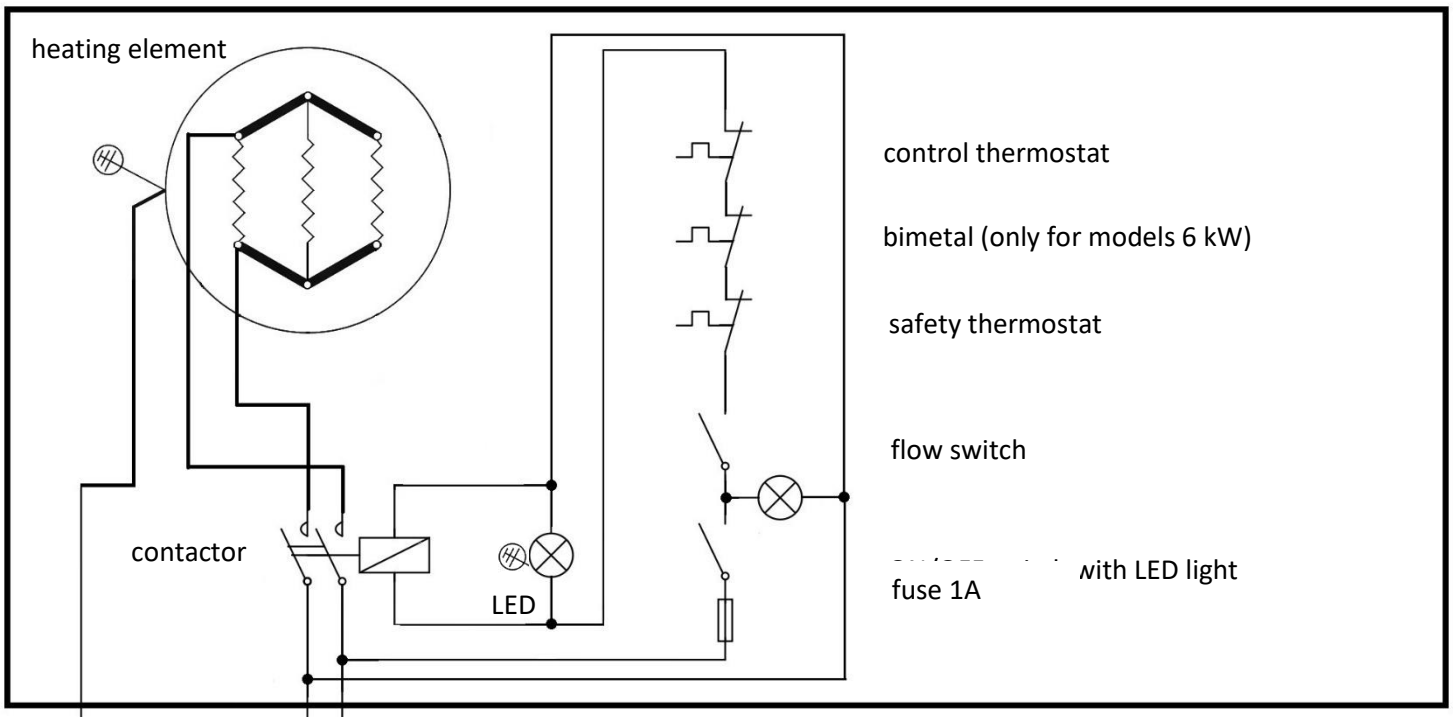
circuit breaker

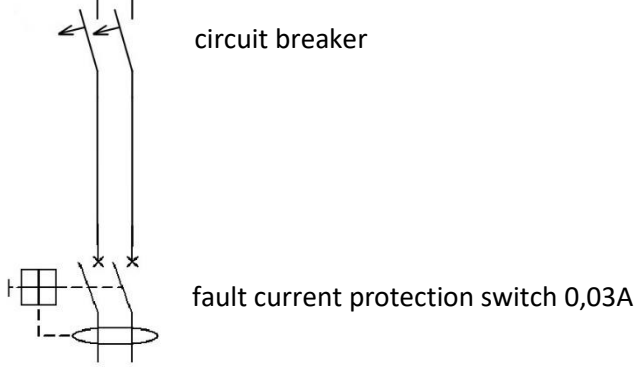
fault current protection switch 0,03A

PE N L1 L2 L3

power supply 3x 400V/ N/PE

CIRCUIT DIAGRAM 1x230V



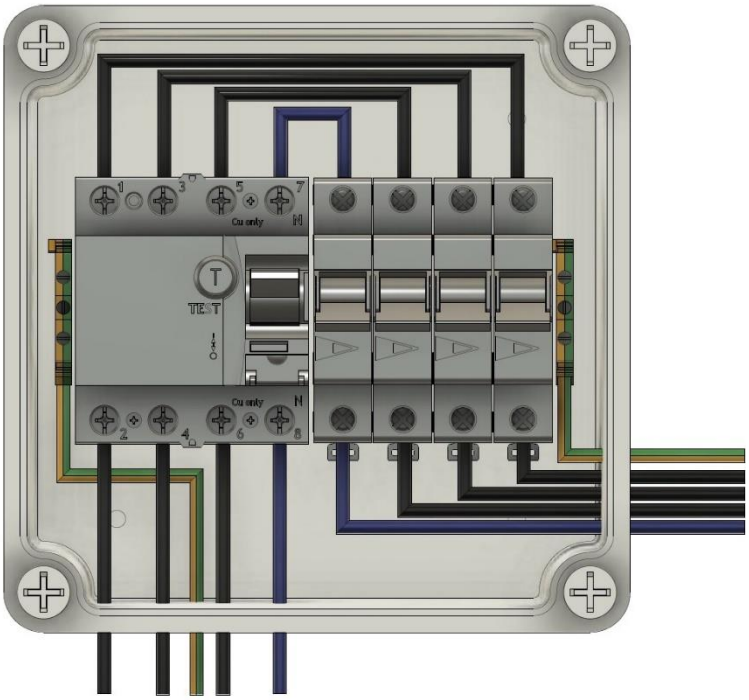


PE N L

power supply 1x 230V/N/PE

Power Supply:

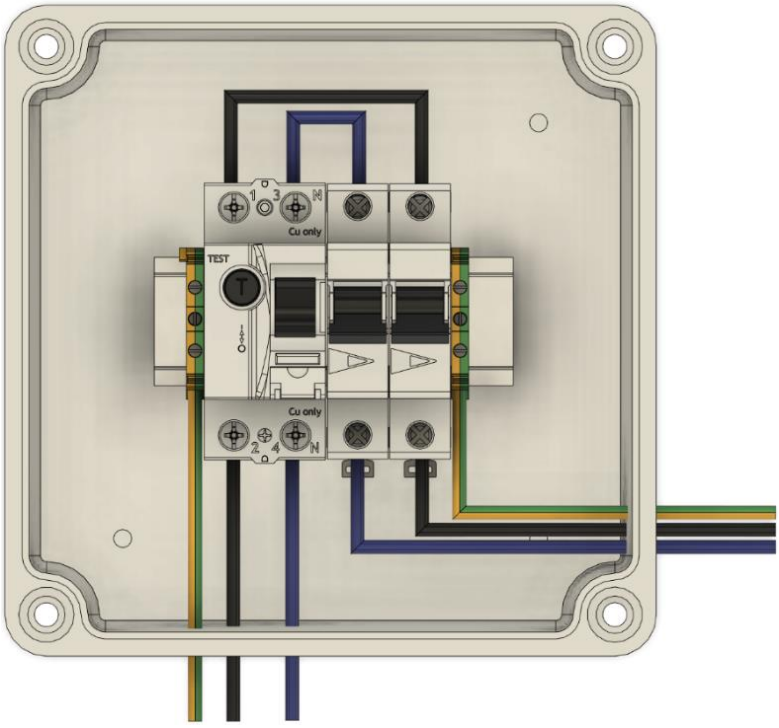
Wiring Diagram 3 x 400V
Three-Phase Model:



Power Supply

Connection Cable NEO - Compact

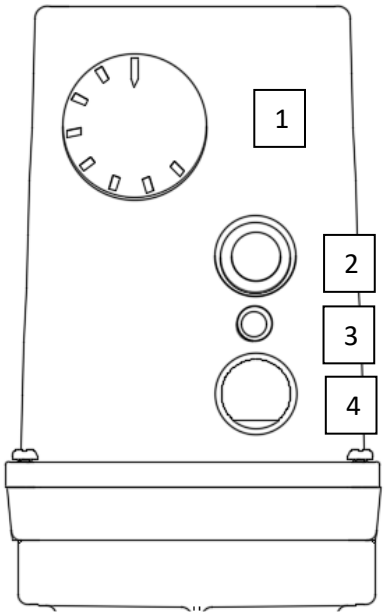
Wiring Diagram 1x230V
Single-Phase Model:



Power Supply

Connection Cable NEO - Compact

11. Control Panel:



1. control thermostat 0-40°C

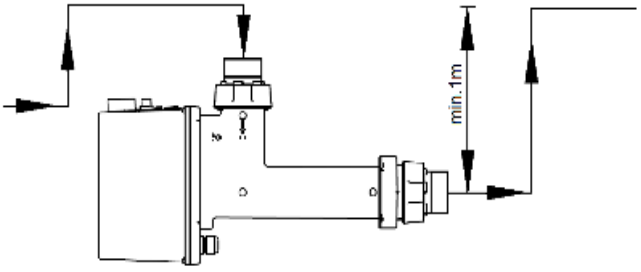
2. safety thermostat / reset button

3. LED light- heating ON

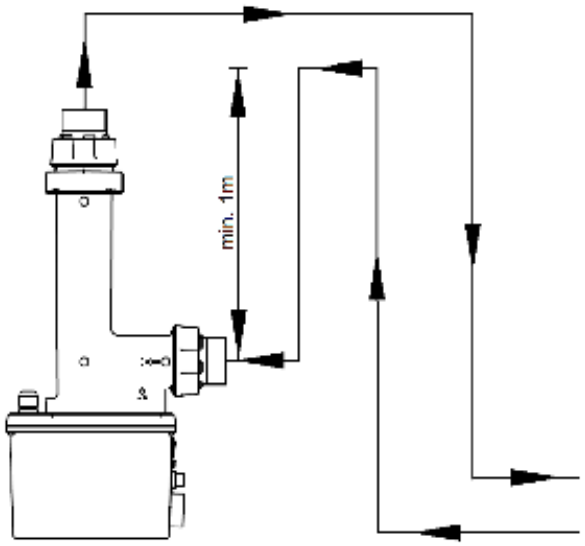
4. ON/OFF switch

12. Installation Instruction Principle:

Installation above the water level

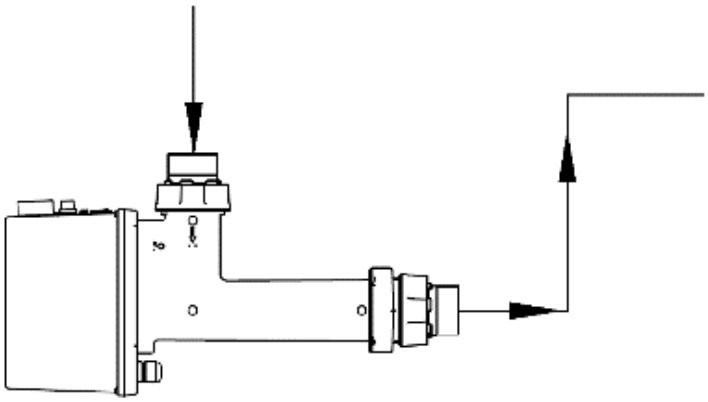


horizontal installation

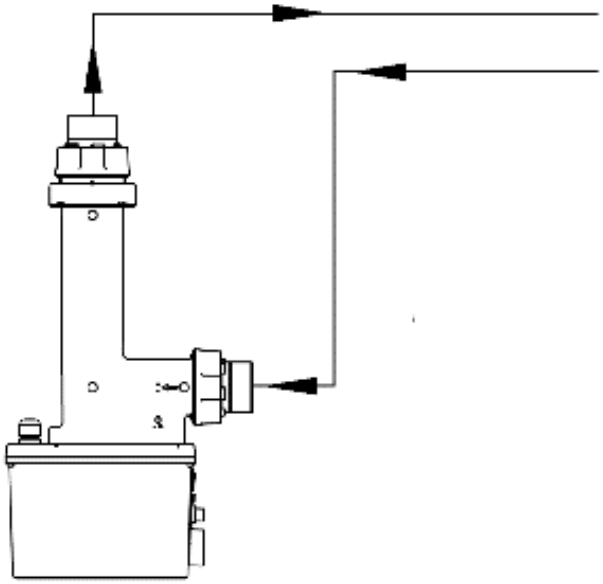


vertical installation

Installation below the water level



horizontal installation



vertical installation

13. Important General Note:

I**t is essential that the Electric Heat Exchanger is installed in an area with adequate floor drainage.** If heat exchangers, filters and similar devices are damaged, water may escape uncontrollably. Cellars and similar areas may quickly become flooded and suffer material damage!

14. Please save these Installation and Assembly Instructions and include them in the construction file. Thank you!

11-03-2024, max daprà KG - Daprà Andreas & Co, Via Graf 2, I-39050 Fiè allo Sciliar (BZ)

Technical changes reserved.