

HEATpool



ELEKTRICKÝ PRŮTOKOVÝ OHŘÍVAČ VODY HEATpool Titan

THE ELECTRIC FLOW WATER HEATER OF THE HEATpool Titan TYPE

ELEKTRISCHER DURCHLAUFWASSERERHITZER TYPE HEATpool Titan

ЭЛЕКТРИЧЕСКАЯ ВОДОГРЕЙНАЯ КОЛОНКА НЕПРЕРЫВНОГО ДЕЙСТВИЯ ТИП HEATpool Titan

HEATpool - TITAN ELECTRIC HEATERS

HEAT pool TITAN electric flow unit assembly instructions

Before starting the assembly:

Carefully study all instructions for installation and make sure that you understand these.

SAFETY MEASURES

- Electrical connection must be made by a qualified professional with appropriate certification. Warranty cannot be settled positively without submitting invoice for professional connection.
- Installation must be in compliance with electrical standards applicable in the country where installation is performed.
- ✓ Heater's electrical source must always be protected in the beginning of the circuit with a residual current device with switch-off current $I_r = 30\text{mA}$, which protects persons against injury caused by hazardous current.
- ✓ Disconnect the device from electric voltage before starting any activities
- ✓ Install the electric heater in a place inaccessible to the public.
- ✓ It is necessary to use a feedback with the filtration pump.
- ✓ HEATpool – TITAN is also suitable for pools with water treatment using salt water as well as sea water.
- ✓ HEATpool TITAN heaters are always pre-connected for connection to three-phase source 400 V ~ 50 Hz or single-phase 230 V ~ 50 Hz; (see the viz. «Electric connection» section)

Content of the box

The box must contain the following:

- ✓ Electric heater HEATpool – TITAN with electrical flow flap
- ✓ Electric control box with digital thermostat, which is connected to the heater by a flexible insulation tube
- ✓ Holders for wall mounting – 2 pcs
- ✓ Instructions for installation and use

MARKING AND CHARACTERISTICS OF YOUR HEATER

Marking

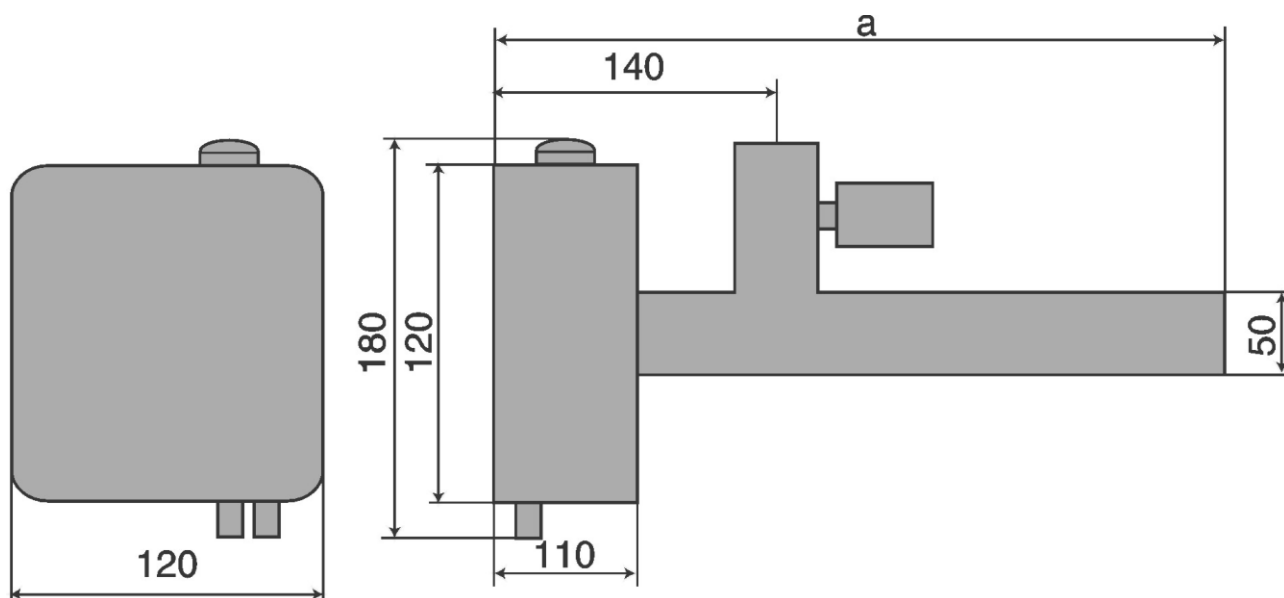
before installing the heater, determine the model according to its marking.

Example:

EOV H 12 Ti

EOV	Electric water heater
H	Type: HEAT pool
12	12 kW
Ti	Titanium

Heater dimensions



	3kW	6kW	9kW	12kW
a	330 mm	410 mm	520 mm	700 mm

Technical parameters

output	3kW	6kW	9kW	12kW
material	Titan	Titan	Titan	Titan
input upon 1-phase connection	13A	26A	40A	
type of cable upon 1-phase connection	3x4	3x6	3x10	
input upon 3-phase connection	4,5A	9A	14A	17A
type of cable upon 1-phase connection	5x2,5	5x2,5	5x4	5x4
Connection	50mm	50mm	50mm	50mm
Min. flow rate	4m ³ /h	4m ³ /h	4m ³ /h	4m ³ /h
Max. flow rate				

INSTALLATION

Hydraulic connection

The electric heater must be connected to the displacement circuit after the filter - see fig. 1, before the chemical treatment section (dosage pump, semi-automatic chlorinator, electrolyzer, etc.). The heater is recommended to be installed 0,5-2m under the water level. "By-pass" installation is recommended with the objective of simplifying potential operations on the heater and its preparation for winter. By-pass must be connected always in the direction of under the existing pipes, so that the heating unit cannot be aerated. Upon direct installation in the pipe, it is necessary to install heating under the water circuit level, i.e. „U“-type connection – see fig. 1. This installation secures permanent irrigation of the heating cartridge. When selecting a suitable place for installation, it is recommended to count on a configuration enabling extraction of the heating unit, without taking the heater out of the hydraulic circuit. It is necessary to secure laminar (streamline) flow, i.e. through a straight pipe at least 50cm in the direction of water flow before the heating. After installation, the connection must be tested.

HEATpool - TITAN heaters are equipped with detachable connection to water circuit, enabling easy handling if necessary.

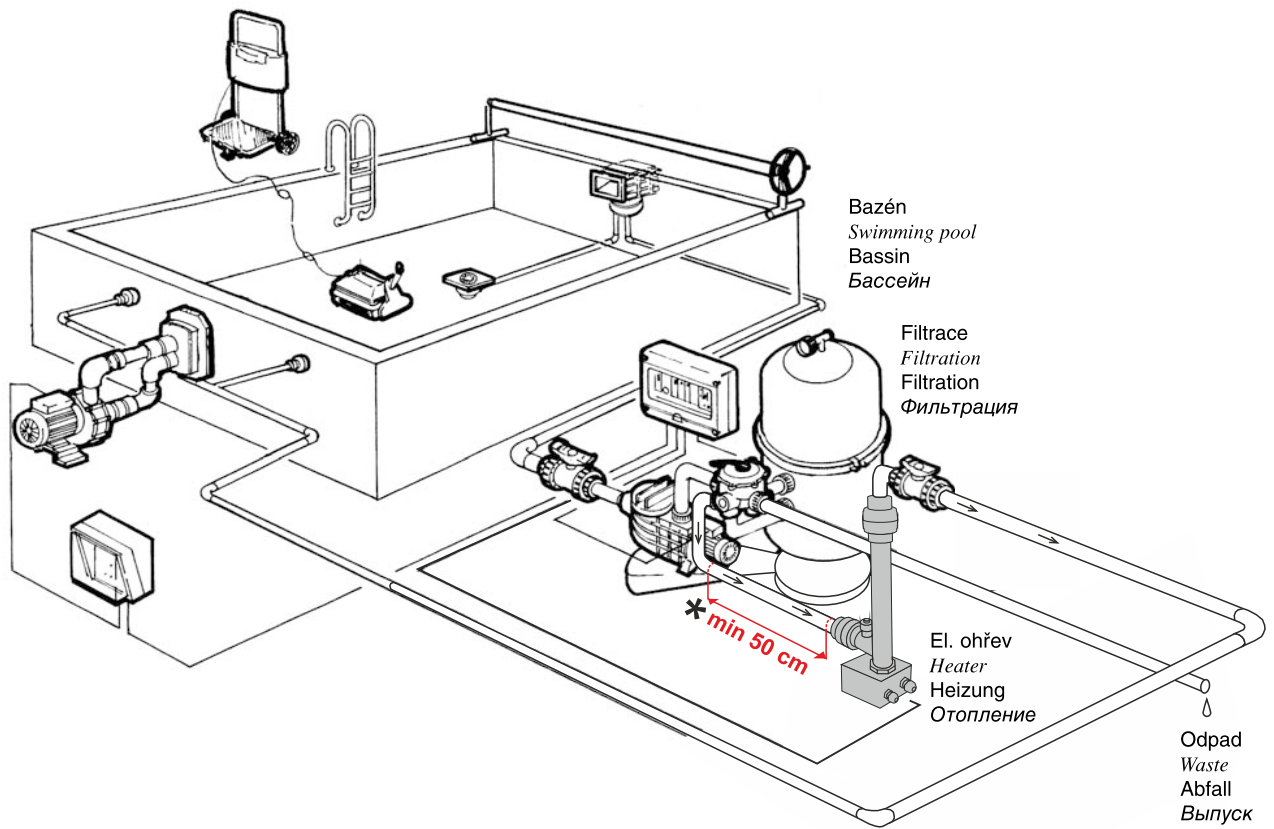


Fig. 1

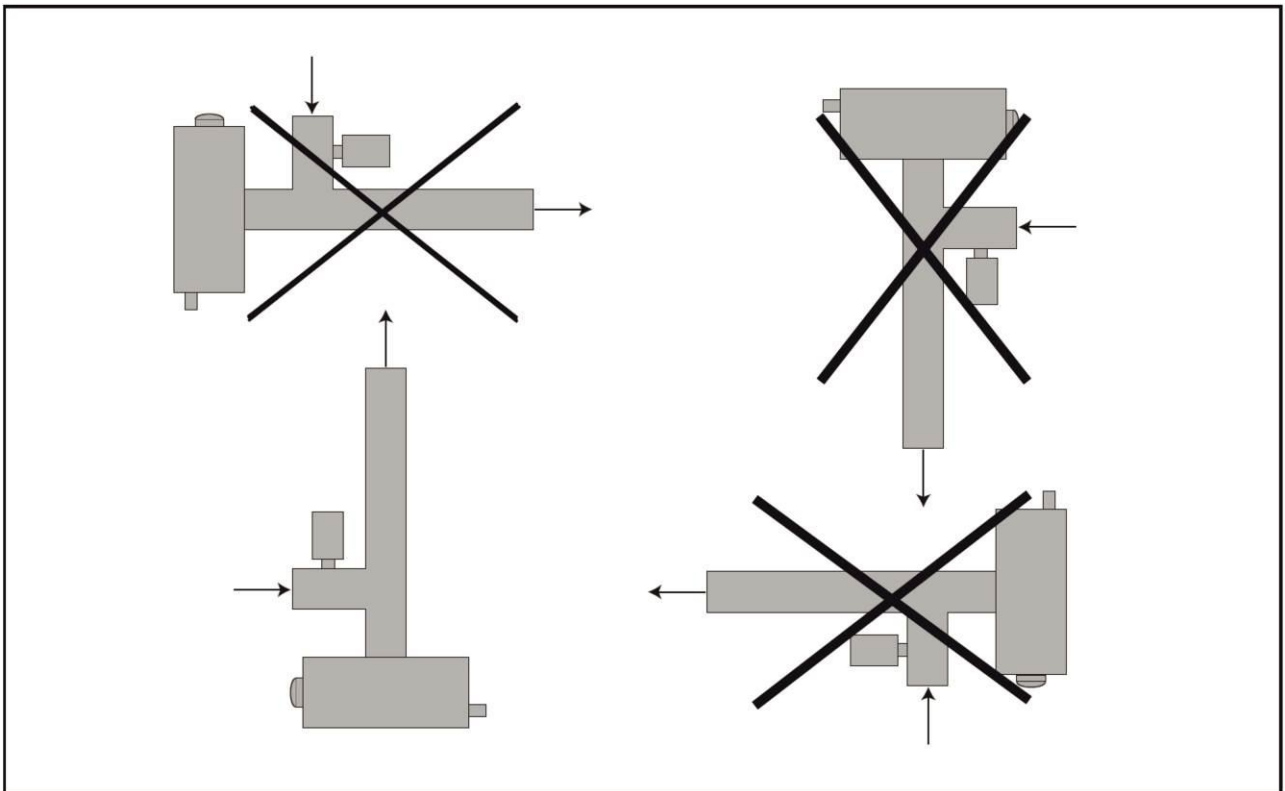
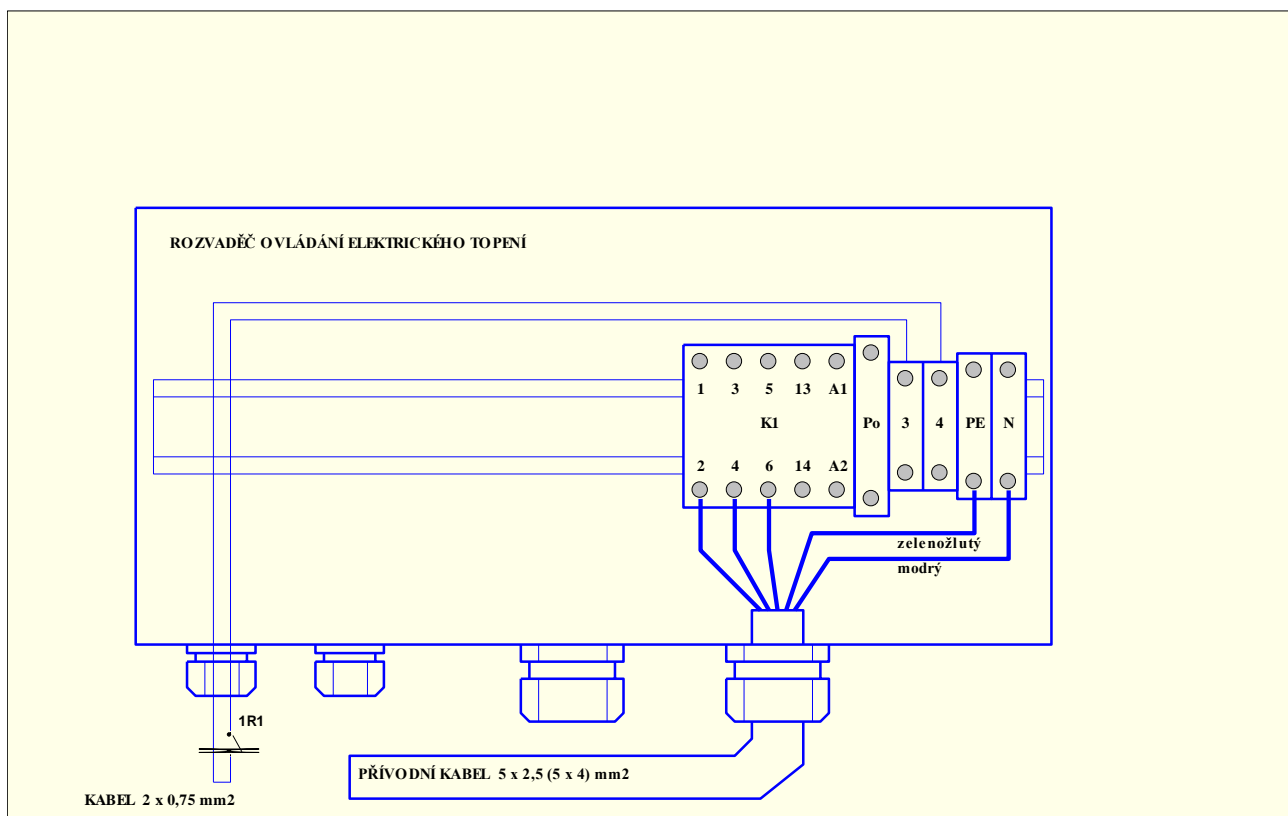


Fig. 2 – an example of an incorrect installation
 Protective and control elements

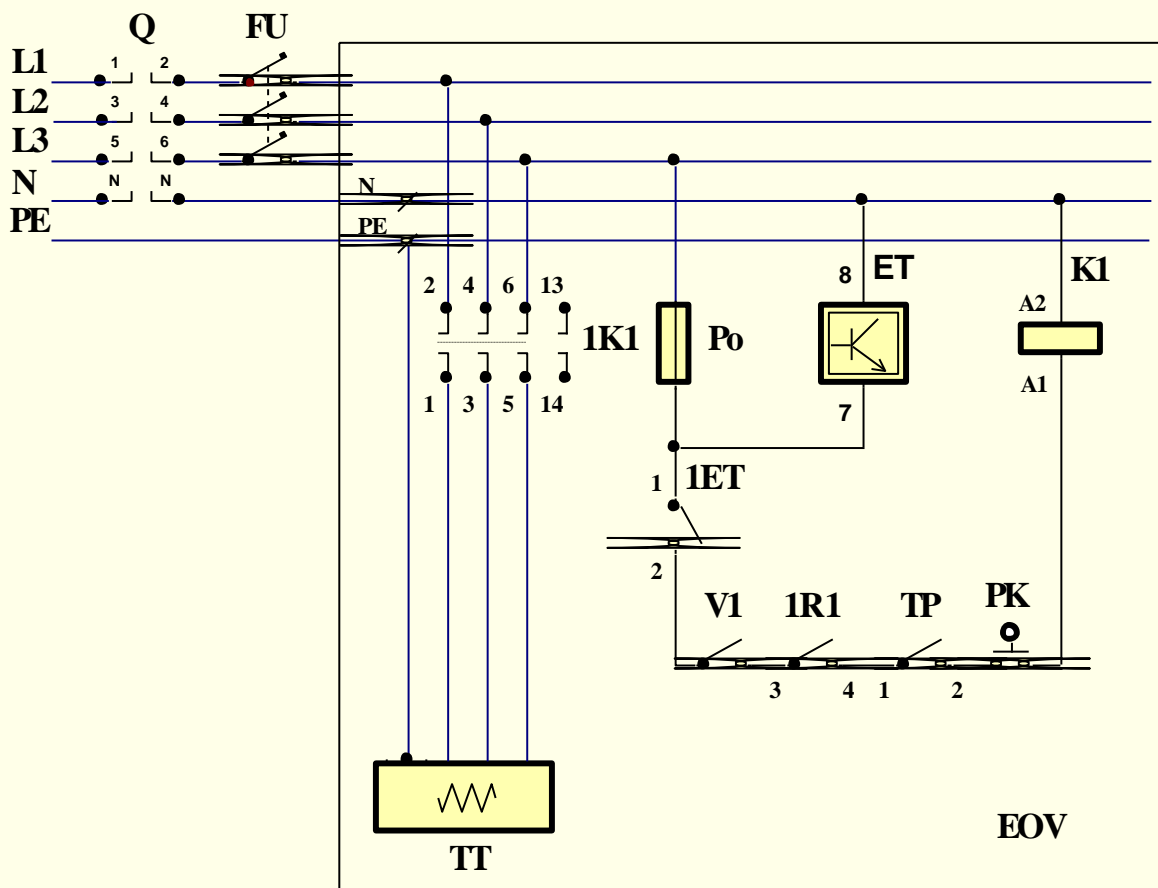
- ✓ Cables used for the installation of the length of up to 20 m are cables with 5 conductors (3 phases + protective conductor + grounding conductor) (5x2,5 mm² for 3 and 6kW heaters and 5x4 mm² for 9 and 12kW heaters).
- ✓ Grounding conductor (green & yellow) must be connected to the grounding terminal marked with the symbol (⊥).
- ✓ Protective conductor (blue) must be connected to the second blue terminal marked with the letter (N).
- ✓ Phase conductors (other colours) must be connected on grey terminals marked with letter (.....).

Electric heating controls switchboard



Cable

Intake cable



TYP : EOVS

EOV - elektrický ohřev
 TT - topné těleso
 Q - proudový chránič FI 30mA
 FU - jistič
 ET - regulační termostat
 1R1 - kontakt stykače filtrace

TP - tepelná pojistka
 PK - průtoková klapka
 K1 - stykač
 Po - ovládací pojistka
 V1 - vypínač topení

EOV = electric heating

TP = thermal fuse

TT = heating unit

PK = flow flap

Q = residual current device

K1 = contactor

FU = fuse

Po = control fuse

ET = regulation thermostat

V1 = heating switch

1R1 = filtration contactor contact

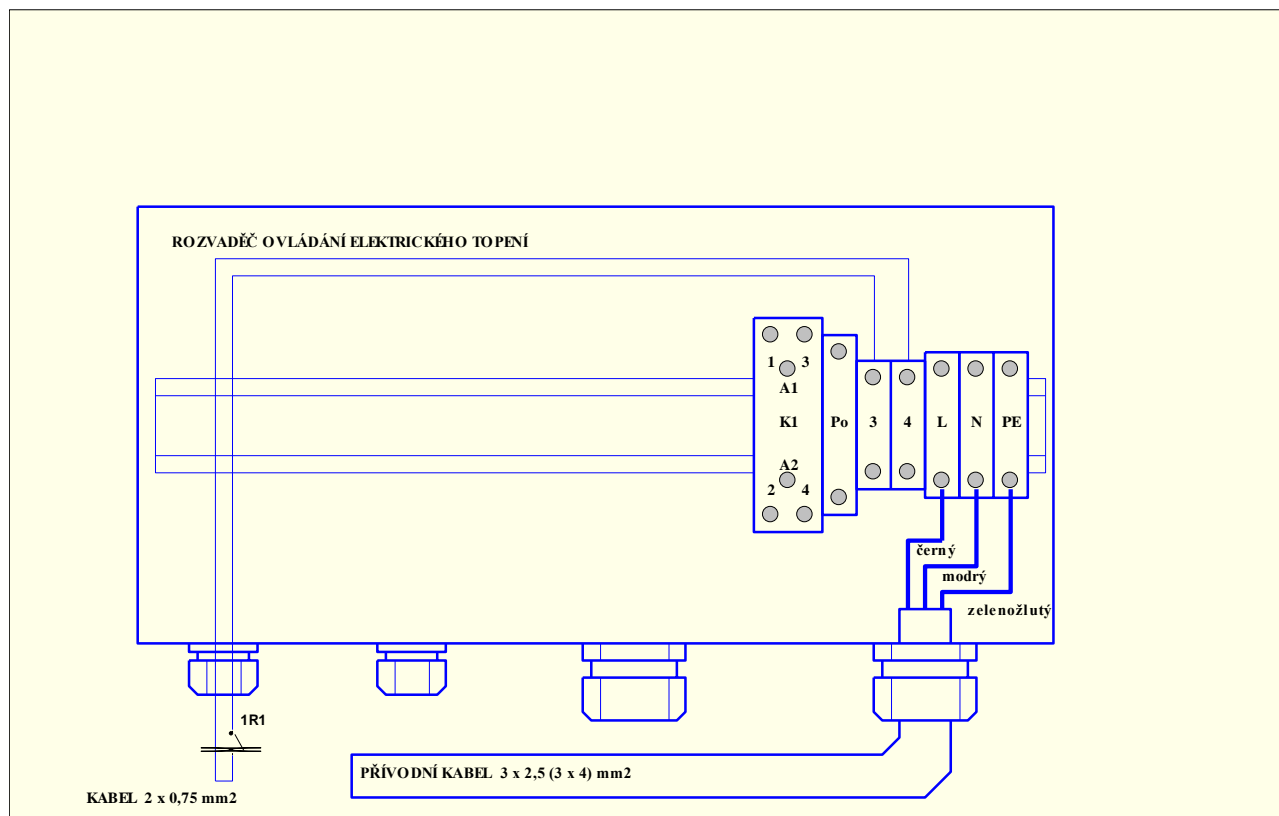
For single-phase 3 and 6 kW heaters

- ✓ Cables used for the length of pipe of up to 20 m are cables with 3 conductors (phase + protective conductor + grounding conductor) (3x4 mm² for 3 kW heaters and 3x6 mm² for 6 kW heaters).
- ✓ Grounding conductor (green & yellow) must be connected to grounding terminal marked with the symbol (⊥).
- ✓ Protective conductor (blue) must be connected to the second blue terminal marked with letter (N).
- ✓ Phase conductor (other colour) must be connected to the first grey terminal marked with letter (P).

► Double connection coupler must always be installed between 2 blue terminals marked with the letter (N).

► Triple connection coupler must always be installed between 3 grey terminals marked with the letter (P).

Electric heating controls switchboard



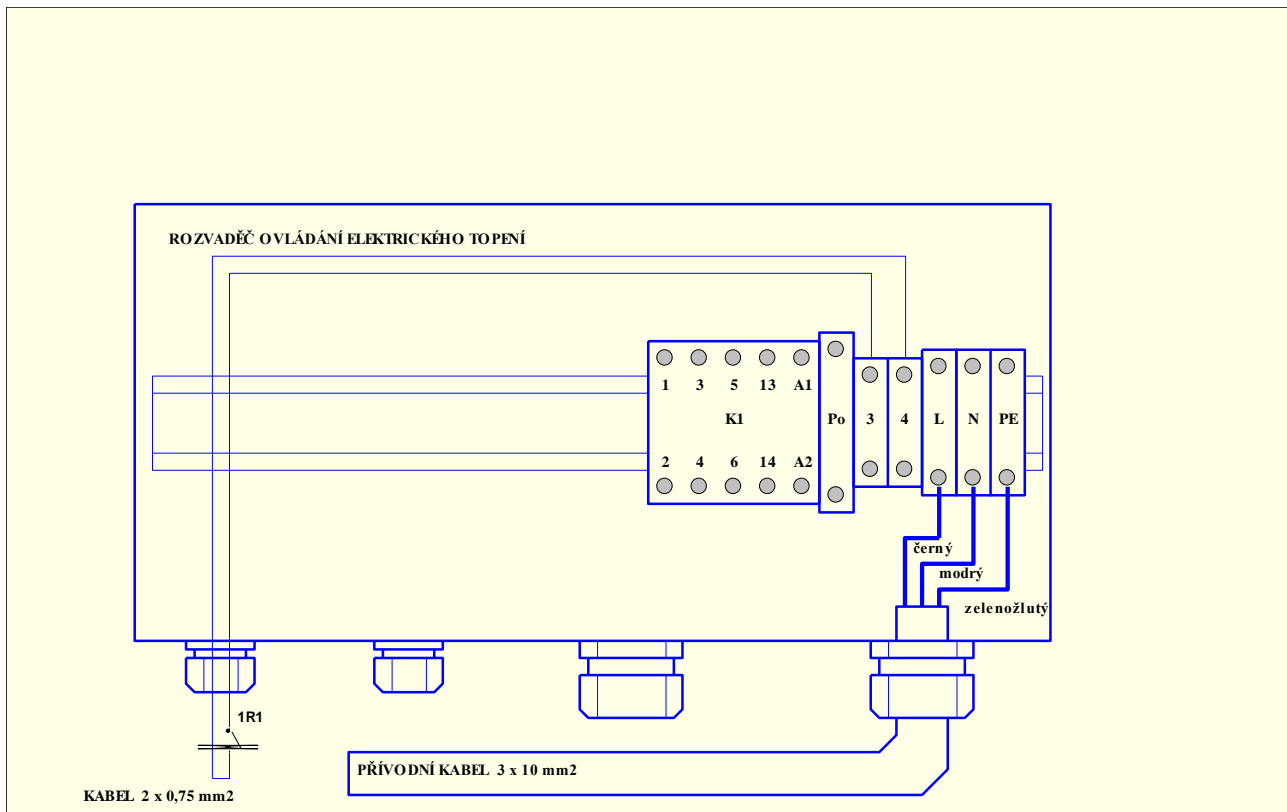
Cable

Intake cable

For single-phase 9 kW heaters

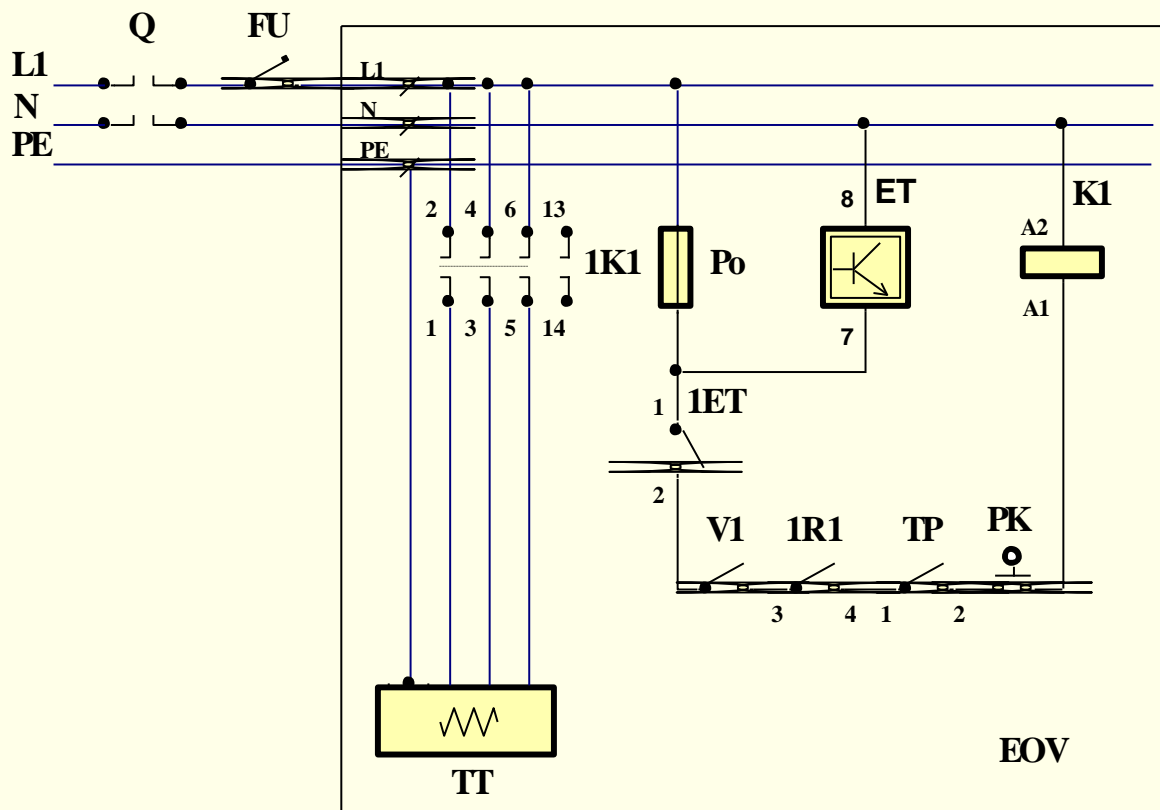
- ✓ Cables used for the length of pipe of up to 20 m are cables with 3 conductors (phase + protective conductor + grounding conductor) (3x10 mm²)
- ✓ Grounding conductor (green & yellow) must be connected to the grounding terminal marked with the symbol (\perp).
- ✓ Protective conductor (blue) must be connected to the second blue terminal marked with the letter (N).
- ✓ Phase conductor (of another colour) must be connected to the first grey terminal marked with the letter (P).

Electric heating controls switchboard



Cable

Intake cable



TYP : EOV

EOV - elektrický ohřev
 TT - topné těleso
 Q - proudový chránič FI 30mA
 FU - jistič
 ET - regulační termostat
 1R1 - kontakt stykače filtrace

TP - tepelná pojistka
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EOV = electric heating
 TT = heating unit
 Q = residual current device
 FU = fuse

TP = thermal fuse
 PK = flow flap
 K1 = contactor
 Po = control fuse
 V1 = heating switch

1R1 = filtration contactor contact

Switching filter feedback on

Filter feedback must be switched on using a cable of grey terminals marked with the letter (P) to an auxiliary switching contact of filtration contactor. A cable with two conductors of the cross-section of 1,5 mm² is used.

Cable inlet in the heater box is sealed in a cable bushing.

USE

Commissioning

Check if the electrical connection is established and operational, then start the filtration pump and press the switch on the front side of the box (move it upward).

Setting-up the thermostat

Digital thermostat is to be set up using the following procedure to a higher value than the current water temperature.

a) Set-up parameters:

- Instruction (°C): Required water temperature.
- Hy = Tolerance (°C), range of the required temperature around the instruction. The smaller the value, the more frequent turning on of the heater, and water temperature more exact. It is factory-set to 2 °C.

Example

* Instruction = 26 °C, tolerance = 2 °C (factor setting), temperature measured = 24°C.

Heating required, set-up operational. It stops as soon as the temperature being measured is equal to 26+2 = 28°C (instruction + tolerance).

b) Opening instruction set-up:

- ▲ ▼ 1 – Press and release the SET button: instruction set-up value is shown
- 2 – Press and release the SET button or wait 5 seconds: the temperature being measured is shown again.

c) How to change instruction set-up:

- ▲ ▼ 1 – Press the SET button and hold for 2 seconds
- 2 – The value of instruction set-up is shown and the LED * flickers
- 3 – Change the instruction set-up value by buttons ▲ or ▼.
- 4 – In order to save the new instruction value, press again the SET button or wait for 10 seconds.

d) How to change the tolerance value:

- LED:
- 1 – Enter the programming mode by simultaneously pressing the following buttons: „SET“ + ▼ and holding these for 3 seconds.
 - 2 – (LED 1 and * flicker). Hy is shown.
 - 3 – Press the „SET“ button (the shown Hy value flickers).
 - 4 – To change this value, use the buttons ▲ or ▼.
 - 5 – To save this new value, press the “SET” button.

Exiting: press „SET“ + ▼ or wait 15 seconds.

Note: the new value is saved in both cases.

For classic use, set up the tolerance value to 1.

Control measures

The heater is already operational, check if the heater switches off in the following cases:

- filtration pump stops
- water flow to heater intake stops
- thermostat instruction interrupted

Safety thermostat

HEATpool – TITAN heaters are equipped with a safety thermostat limiting temperature to max. 54-60°C for manual control.

Activities within the frame of the warranty shall not extend the warranty.

The only obligation that follows to the seller from the warranties free of charge is replacement or repair of the product or part, which the seller's servicing organisation identified as defective. Other costs are covered by the buyer.

Warranty acknowledgement requires that each product must first go through seller's warranty service, whose approval is a precondition for any replacement.

ADVICE FOR USE AND SAFETY MEASURES

- ✓ Upon the first operation of heating or during the beginning and end of the pool season it is recommended to start permanent operation so that the heater can increase pool temperature more easily. During the season, or when energetic requirements are smaller, filtering may be run in automatic regime.
- ✓ Use of isometric cover material (bubble foil, sliding cover, foam cover) is recommended to reduce electric power consumption by the heater and to optimise heating.
- ✓ If the pool is filled with calcareous water, it is recommended to regularly check for presence of limescale in the heating elements. Possibly use a tester for water hardness and then treat the water by adding chemicals to decrease water hardness. Further, it is possible to use magnetic treatment.
- ✓ Disassembly of the heater head must be carried out by a professional within the frame of a potential repair.
- ✓ Preparation of heater for winter: disconnect main supply of electric power and disconnect the electric power box cable. Empty the heater body by unscrewing the connecting fitting.

Warranty

HEATpool – TITAN heaters have a warranty for all material defects and manufacture defects during 24 months from the date of installation.

This warranty does not cover wear and tear of parts.

Defects and damage caused by incorrect installation are also exempt from the warranty

Positive settlement of warranty claim is conditioned by observing instructions for use and installation. By documenting a confirmed hand-over protocol or warranty certificate with a date of commissioning. The warranty does not cover the cases of failure to fulfil these conditions and especially the following cases:

- Electrical connections were not performed by a professional.
- One of the safety features or parts of controls was disabled or bridged.
- Upon accumulation of scale on the heating unit