



Effekt TY3 thermostat and overheat protection

Product information and installation instructions

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Heat protected shell of silumin

Screw terminal for connection to mains

Heat resistant conductors

Current: 20 A 230 V AC (thermostat)

16 A 400 V AC (overheat protection)

Adjustment range: +15 ... +85 °C +/- 5 °C
Max. temp for overheat: 105 °C +/- 6 °C

Operating difference: 9 °C

INSTALLATION

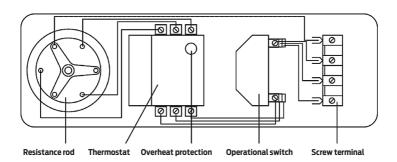
Electrical connections are to be made only by a qualified electrician. The resistance rod must always be connected via the thermostat. The resistance rod must under no circumstances be connected directly to power.

The thermostat and overheat protection are three-pole and can be used to directly control power up to 9 kW without an external contactor.

Position X of the thermostat axis and No. 1 of the adjusting wheel corresponds to 15 $^{\circ}$ C. The Z position of the thermostat axis and No. 10 of the adjusting wheel corresponds to the setting of 85 $^{\circ}$ C. Y = overheat protection reset button.

The connection difference of the thermostat is adapted in such a way that the thermostat works precisely and reliably even if it needs to be placed in the control device pocket in the middle of the resistance rod.

ELECTRICAL NO: 81 673 93 HVAC NO: 50 880 59





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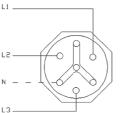
When placing the thermostat in the control device pocket in the middle of the resistance rod, its operating difference must be large enough to avoid excessively frequent switching on and off, caused by the resistance rod's own heat. This has been taken into account in the thermostat TY3 which has an operating difference of 9 °C.

TY3 is a combination of a three-pole thermostat and a three-pole overheat protection. Both functions have their own sensor and contact functions. Electrically, the control and protection functions cannot therefore be connected to different circuits, but either can be eliminated by not threading the corresponding sensor into the control device pocket.

As a three-pole thermostat, the TY3 can best be used for spare and additional heating elements for boilers, where there are not such high demands on the adjustment accuracy and where simple installation is prioritized. Based on this, the EFFEKT TYK central heating element, equipped with a control switch, has also been developed. The single-pole thermostat T1 is more accurate with an operating difference of 3 °C. It is best suited for water heaters that use nocturnal electricity: the use of nocturnal electricity requires more accuracy and usually these heaters have their own connection points for thermostats, so they are not disturbed by resistance rods.

Old water heaters do not necessarily have enough connection points for separate thermostats and in that case the thermostats must be placed in connection with the resistance rods. The TY3 operates without interference under these conditions, as long as a lower adjustment accuracy is accepted. If only the thermostat is to be used, the sensor for the overheat protection is simply not threaded in.

The problem often becomes the upper resistor, where both the thermostat and the overheating protection should be placed, while still being connected to different circuits. In these cases, a special adaptation must be made: the T1 thermostat is replaced by a TY3 thermostat, which is placed in the T1+Y1 housing, and the sensor for the overheating protection is not threaded in. Now the thermostat TY3 and the overheating protection Y1 can be connected to different circuits in the same case. The custom fit is ordered as item "TY3+Y1" and is supplied as separate components to be installed into the case on site. The replacement of the mounting collar required by the TY3 thermostat is to be done on site (requires sheet metal shears and a drill).





Star connection: Low output

Triangle connection: Hight output



Pistesarjat Warranty

Terms and conditions

Pistesarjat Oy offers EFFEKT products a complete two year warranty. The warranty encompasses **material and production defects**, effective as of purchase with the following terms:

- Electrical connection has been carried out by a qualified electrician in accordance with current regulations and installation instructions from Pistesarjat.
- Any defects have been reported to the seller.
- · Pistesarjat have been given the opportunity to troubleshoot to confirm the cause of the defect.
- Troubleshooting or repair work has not been carried out without approval from Pistesarjat.
- Receipt for the purchase must be presented.

This installation guide has been checked as thoroughly as possible. However, Pistesarjat is not responsible for any direct or indirect damages caused by any errors or incorrect application of information. All rights reserved. Copyright (C) 2022 Pistesarjat Oy.





Disposal instructions

Electronic components, or devices containing them, must NOT be disposed of with household waste. They must be disposed of as electrical and electronic waste in accordance with local legislation.

