

PTC-evaluation unit type TMS



General:

The thermistor motor protection relay monitors the temperature of windings in electrical machines (as motors, generators and transformers) in conjunction with PTC/thermistors. It provides safety protection against thermal overload.

Application:

- Heavy duty starting (Overloading).
- Restricted cooling.
- Frequent switching.
- Blocked rotor.
- Phase failure, with a consequent increase in the temperature of the windings.
- Heating and ventilating.
- Operating with a frequency converter.

Function:


The thermistor motor protection relay monitors up to six PTC-thermistors connected in series. Three phase AC motors are usually equipped with three sensors, pole-changeable three phase AC motors, with separate windings, require six sensors. In normal operation the relay is activated, e.g. There is no thermal overload of the device. When the temperature of the PTC thermistor exceeds the tripping point, the motor protection relay is deactivated, (e.g. relay switches off) and triggers the power cut-off to the equipment, which it is monitoring. A fall in temperature causes re-activation of the relay, (e.g. the relay switches on) and allows the motor or transformer to be re-started. According to the internationally standardised tripping points the device provides switching-on and switching-off automatically. The motor protection relay enables reset manually as well. When the temperature of the PTC thermistor goes below the tripping point, the alarm message is resettable using the reset pushbutton. Breaks and short circuits, in the sensor circuit, are indicated by means of LED and the motor protection relay is deactivated.

Advantages:

- Internationally standardised on and off switch points.
- Universal interchange of the PTC thermistors.
- PTC thermistors, of all standardised operating temperatures, and conforming to DIN 44081 und DIN 44082 standards, are suitable for connection.
- Wire breakage and short circuit in the sensor circuit indicated.
- The device operates according to the closed circuit current principle. This guarantees the secure stopping of the electrical machine, even in the event of a power blackout.
- Wide range power supply for 18...72 V DC or 85...265V AC is applicable world-wide for all common supply voltages
- Ultra small sized housing saves space in your switch cabinet: 17,5 mm at DC power supply 22,5 mm at AC power supply
- Extern reset at screw type terminals
- Extremely cost effective.

PTC-evaluation unit type TMS

Technical data:

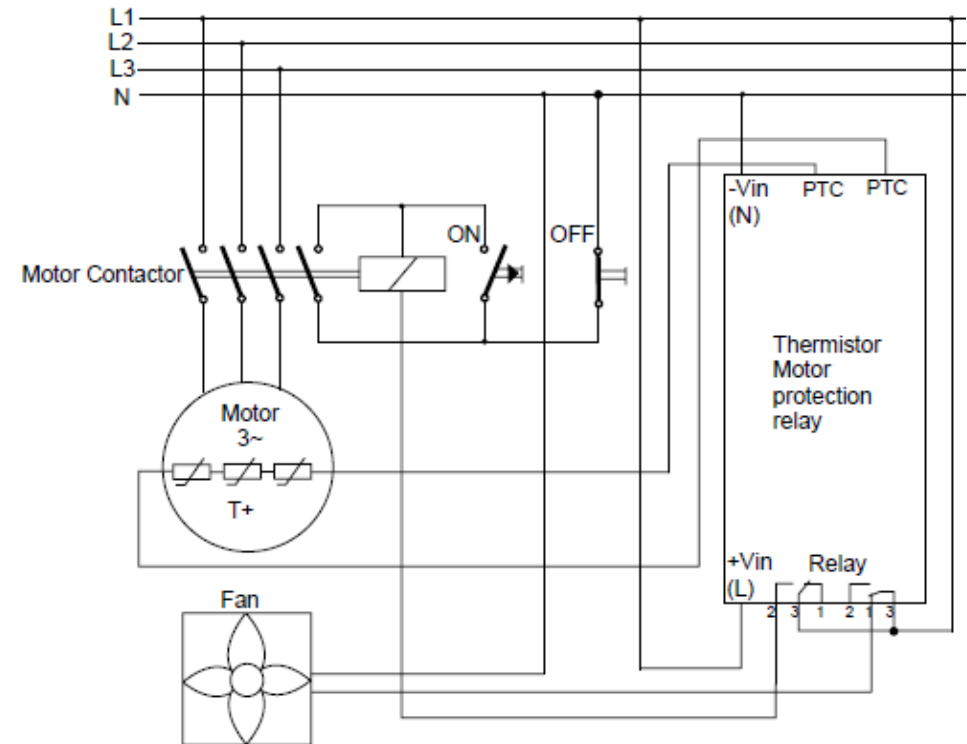
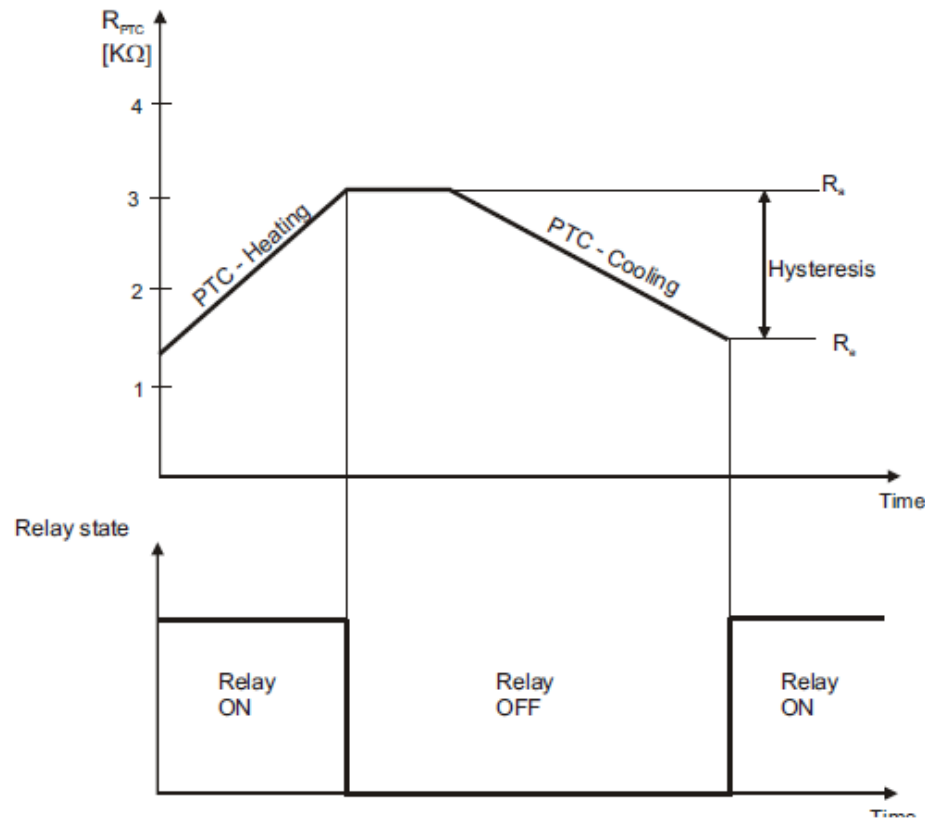
| Type | | TMS |
|--|-----------|---|
| Voltage | VAC | 85 – 265 |
| | VDC | 9 – 18 / 18 – 36 / 36 – 72 / optional 18 – 72 |
| Frequency (for VAC) | Hz | 50-60 Hz |
| Insulation resistance | VAC | 3000 |
| Rated consumption | VA | <3 |
| Contact equipment | | 2 change-over contacts Switching capacity: 250VAC/5A/1250VA and 30VDC/5A/150W |
| Ambient temperature | °C | -25 to 85 |
| Temperature tripping point | | |
| Switch-off resistance R_a | kOhm | 1,65 to 4,0 |
| Restart resistance R_e | kOhm | 0,75 to 1,65 |
| Voltage on the PTC measuring terminals at $R_K = 4 \text{ kOhm}$ | V | $\leq 7,5$ |
| number of sensors | | suitable for connection for max. 6 sensors |
| Dimensions (LxWxH) | mm | 48 x 96 x 42 \pm 0,5 |
| | AC suply | 22,5 x 114,5 x 99 \pm 0,5 |
| | DC supply | 17,5 x 114,5 x 99 \pm 0,5 |
| Installation | | fixed to the mounting rail TS 35 |
| Class | | IP 20 |
| Tested to | | EN 61326-1 |
| Conformity mark | |  |

PTC-evaluation unit type TMS

Function

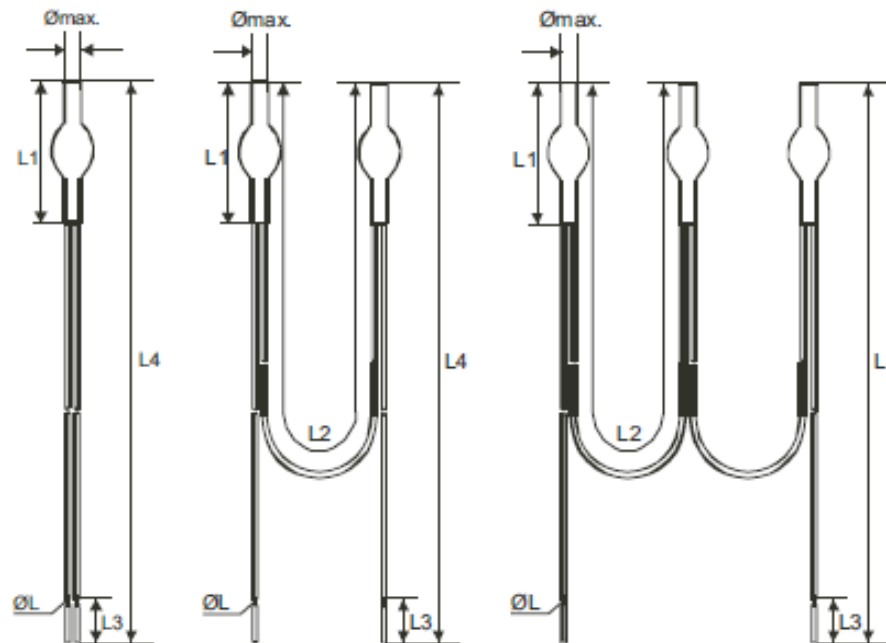
with automatic re-activation

as motor protection with relay: 2nd change-over contact to the fan switch



PTC-evaluation unit type TMS

Wiring of sensors:



PTC-evaluation unit type TMS

HERZ GmbH

Kunststoff- & Wärmetechnologie
Biberweg 1
DE – 56566 Neuwied
Tel.: +49 (0)2622-81086; Fax: +49 (0)2622-81080
www.herz-gmbh.com; info@herz-gmbh.com

HERZ Austria GmbH

Kunststoff- & Wärmetechnologie
Gleinser Weg 27
AT – 6141 Schönberg / Tirol
Tel.: +43 (0)5225-63113; Fax: +43 (0)5225-6311385
www.herz-austria.at; herz.schoenberg@herz-gmbh.com

HERZ Hungária Kft.

Műanyag- es hőlégtéchnika
Pesti út 284. (HRSZ. 3335.)
HU – 2225 Üllő
Tel.: +36 (06)29-522400; Fax: +36 (06)29-522 410
www.herz-hungaria.hu; herz@herz-hungaria.hu

HERZ Bulgaria OOD

Boul. Assen Yordanov 10
BG – 1592 Sofia
Tel.: +359 (0)2-9790351; Fax: +359(0)2-9790793
www.herz-bulgaria.com; office@herz-bulgaria.com

HERZ GmbH

Kunststoff- & Wärmetechnologie
Am Arenberg 26A
DE – 86456 Gablingen
Tel.: +49 (0)8230-85085; Fax: +49 (0)8230-85087
www.herz-gmbh.com; robert.einberger@herz-gmbh.com

HERZ Austria GmbH

Kunststoff- & Wärmetechnologie
Johann-Galler-Str. 20 IZ – NÖ – Nord
AT – 2120 Wolkersdorf i. Weinviertel
Tel.: +43 (0)2245-82494-0; Fax: +43 (0)2245-82494-9
www.herz-austria.at; herz.wolkersdorf@herz-gmbh.com

HERZ Polska Sp.z o. o.

Technologie obróbki tworzyw sztucznych
Ul. Kostrzyńska 30
PL – 02-979 Warszawa
Tel.: +48 (0)22-8428583; Fax: +48 (0)22-8429700
www.herz.polska.pl; herz.polska@herz-gmbh.com

