

Basic data



Fig. 1

Basic technical data

Full type designation.....	STE T10B
Rated voltage	1 x 230 V, 50 Hz + N + PE
Operating voltage	60 až 250 V
Maximum motor current.....	10 A
Minimum motor current.....	0,4 A
Auxiliary contacts (AC15).....	230 V / 4 A (24 V / 6 A)
Max. pre-protection.....	16 A
Protection Class	II IEC 536
Degree of protection.....	IP54
Permissible ambient temperature.....	-25 až +40 °C
Dimensions (W x H x D).....	70 x 141 x 92 mm
Weight	0,6 kg
Conductor cross-section.....	max. 10 mm ²
Conductor cross-section for TK and aux. contacts.....	max. 2,5 mm ²

Application

STE protecting relays are intended to start up, switch off and protect single-phase motors of RP, RPH, RQ and RF ⁽¹⁾ fans unless the protection is ensured by other approved means ⁽²⁾.

Operating Conditions and Position

STE protecting relays are designed for indoor as well as outdoor application in chemical-free environments without explosion hazard. The STE relay's plastic box can be mounted on the wall or partially embedded (30 mm) in plaster. The STE relay can also be installed without the plastic box directly on the DIN bar inside the distribution board (module width 3.75, IP 20).

Functions and Operation

Basic features, properties and mode of operation are described in the following articles:

Fan Control

Press the (I) button to switch the fan on, press the (0) button to switch the fan off.

Comprehensive Fan Protection

If the fan fails, the STE protecting relay will automatically switch it off. The switching-off signal is provided by opening of the TK thermo-contact in the motor winding. Once the failure has been removed, the fan can be restarted using the (I) button. If the power supply fails (STE stays closed), the fan will be automatically started once the power supply has been resumed.

Power Supply Line Protection

The power supply line is protected by the short-circuit relay and over-current relay.

Auxiliary Contacts

This relay is equipped with a pair of auxiliary contacts⁽¹⁾ (circuit-opening contact and 1 circuit-closing contact) which can be used for remote signalling of the device status, respectively for other working signals.

Wiring

Installation, adjustment, maintenance and replacement of the STE relay may only be performed by a qualified person authorized in accordance with ČÚBP Regulation No. 50/78 Sb. § 6.

- Each installation of the relay must be performed on the basis of a project.

- Before putting the relay into operation, a wiring inspection and prescribed procedures must be performed.

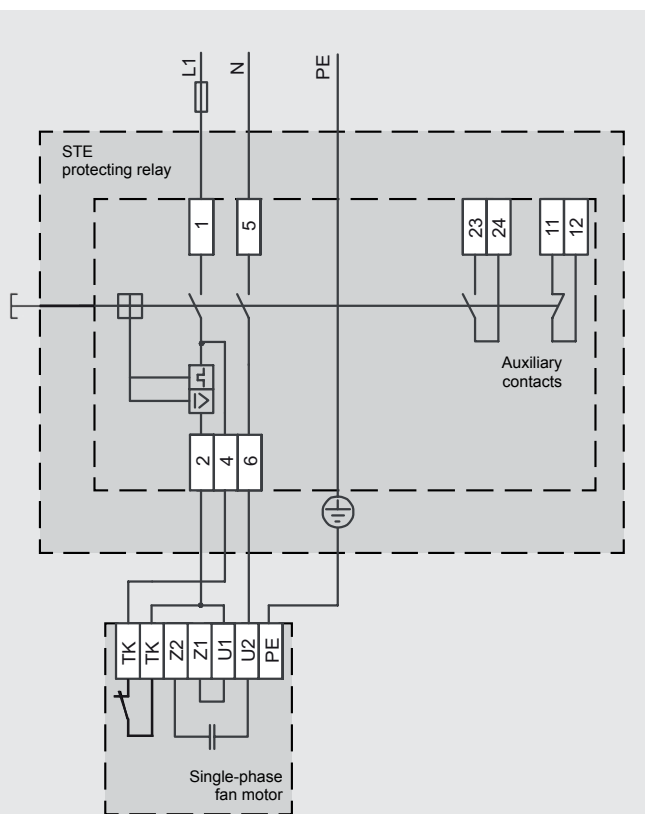


Fig. 2

⁽¹⁾ STE relays are not used with RF fans 30/... or any RO fans which are equipped with their own integrated thermal protection (serial thermo-contact).

⁽²⁾ STE relays are not used if the protection and switching are properly ensured by the control unit or TRE controller.

Note: Comprehensive protection of power controlled drives and frequently switched drives can only be ensured by direct monitoring of the motor winding temperature using thermo-contacts or thermistors. Common protection of motors (using magnetic and thermal triggers) is not able to check the actual motor temperature, which can result in motor failure.

Basic data



Fig. 3

Basic technical data

Full type designation.....	STD T16
Rated voltage	3 x 400 V, 50 Hz + PE
Operating voltage	60 až 400 V
Maximum motor current (adjustable).....	10 až 16 A
Max. pre-protection.....	80 A
Protection Class	II IEC 536
Degree of protection	IP55
Permissible ambient temperature.....	- 25 až +40 °C
Dimensions (W x H x D)	80 x 150 x 98 mm
Weight	0,6 kg
Conductor cross-section.....	max. 4 mm ²
Conductor cross-section for TK and aux. contacts.....	max. 2,5 mm ²
Short-circuit switching ability (IEC 155-1).....	6 kA / 400 V

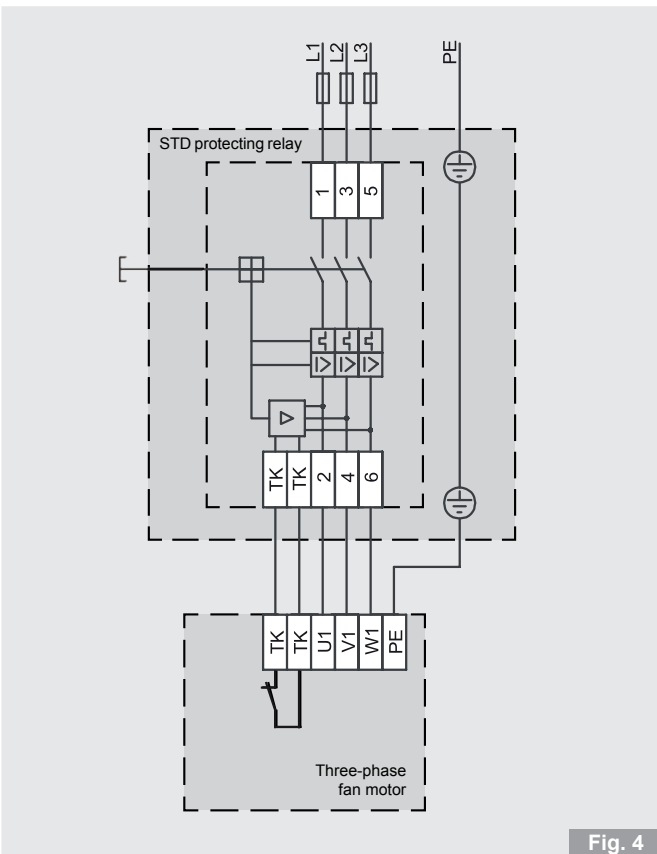


Fig. 4

Application

STD protecting relays are intended to start up, switch off and protect three-phase motors of RP, RPH, RQ and RF ⁽¹⁾ fans unless the protection is ensured by other approved means ⁽¹⁾.

Operating Conditions and Position

STD protecting relays are designed for indoor as well as outdoor application in chemical-free environments without explosion hazard. The STD relay's plastic box can be mounted on the wall or partially embedded (30 mm) in plaster. The STE relay can also be installed without the plastic box directly on the DIN bar inside the distribution board (module width 3.75, IP 20).

Functions and Operation

Basic features, properties and mode of operation are described in the following articles:

Fan Control

Press the (I) button to switch the fan on, press the (0) button to switch the fan off. The STD relay can be locked in the opened state.

Comprehensive Fan Protection

If the fan fails, the STD protecting relay will automatically switch it off. The switching-off signal is provided by opening of the TK thermo-contact in the motor winding. Once the failure has been removed, the fan can be restarted using the (I) button. If the power supply fails (STD stays closed), the fan will be automatically started once the power supply has been resume.

Power Supply Line Protection

The power supply line is protected by the short-circuit circuit breaker and adjustable over-current relay. The protecting value adjusted on the STD relay does not influence the motor overload protection (it cannot be adjusted below 10A).

Auxiliary Contacts ("K" extension)

This relay can be additionally equipped with a pair of auxiliary "K" contacts (1 circuit-opening contact and 1 circuit-closing contact) which can be used for remote signalling of the device status, respectively for other working signals.

Wiring

Installation, adjustment, maintenance and replacement of the STD relay may only be performed by a qualified person authorized in accordance with ČÚBP Regulation No. 50/78 Sb. § 6.

■ Each installation of the relay must be performed on the basis of a project.

■ Before putting the relay into operation, a wiring inspection and prescribed procedures must be performed.

⁽¹⁾ STD relays are not used if the protection and switching are properly ensured by the control unit or TRD controller.

Note: Comprehensive protection of power controlled drives and frequently switched drives can only be ensured by direct monitoring of the motor winding temperature using thermo-contacts or thermistors. Common protection of motors (using magnetic and thermal triggers) is not able to check the actual motor temperature, which can result in motor failure