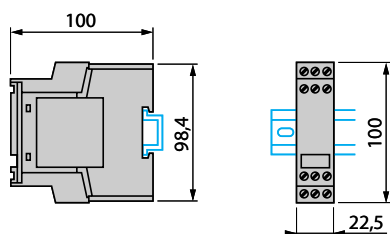


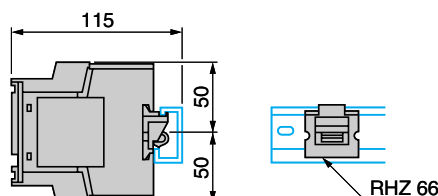
Dimensions

LT3 SE, SA, SM

Mounting on  rail AM1 DP200



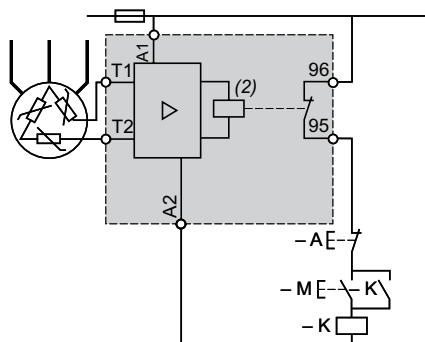
Mounting on 1  rail
(with adapter RHZ 66)



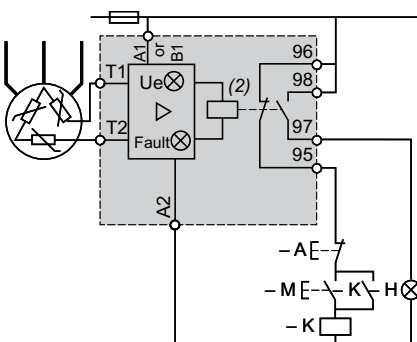
Schemes for “no fault” operation

LT3 SE

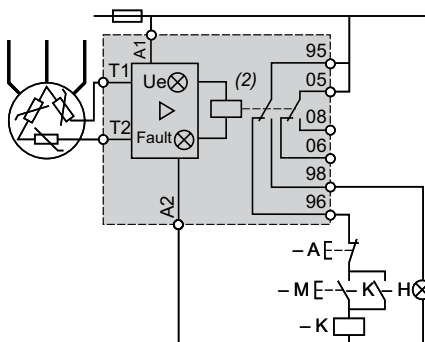
Without fault memory



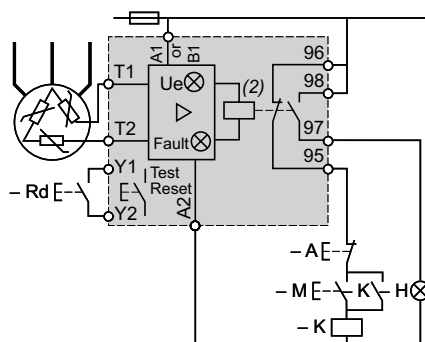
LT3 SA dual voltage



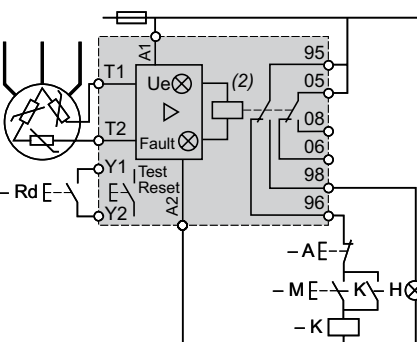
LT3 SA multivoltage



LT3 SM dual voltage and 400 V (without B1)



LT3 SM multivoltage



LT3 S dual voltage

Terminal	A1	B1
Voltage	48 V 230 V	24 V 115 V

Setting-up

Cabling

It is inadvisable to use the same multi-core cable for the thermistor probe circuit and the power circuit. This is especially important for long cable runs. If it is impossible to comply with the above recommendation, a pair of twisted conductors must be used for the thermistor probe circuit.

Testing the insulation of the line connecting the thermistors to the LT3 S unit

Before carrying out this test, short-circuit all the terminals of the LT3 S protection unit.

Measure the insulation value between these terminals and earth using a megger or a flash tester, progressively increasing the voltage to the value defined by the standards.

Checking the PTC thermistor probes for correct operation

With the machine stopped, in the cold state and after having taken all the necessary safety precautions:

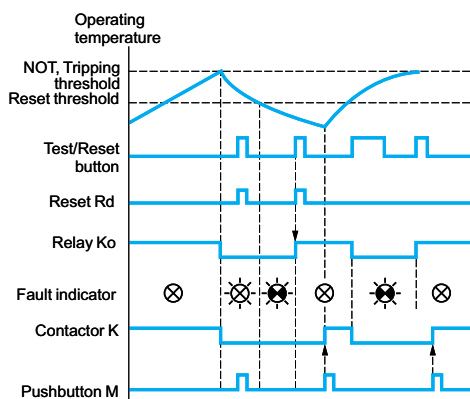
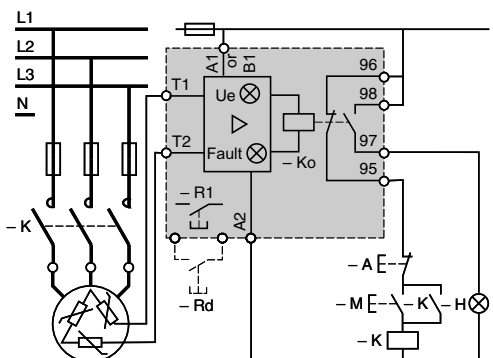
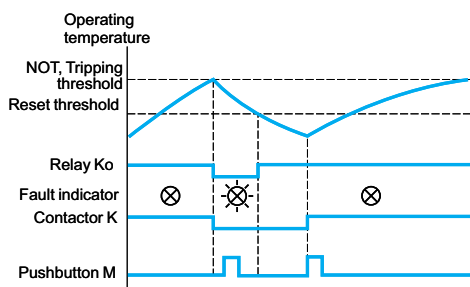
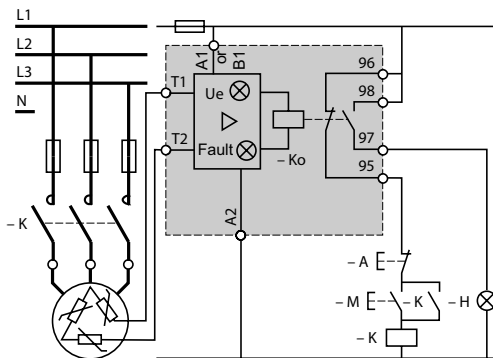
- disconnect the line linking the thermistors to the LT3 S protection unit, at the terminals of the machine being protected: motor, etc.,
- using an ohmmeter with a voltage rating less than or equal to 2.5 V, measure the resistance of the probe circuit at the machine terminals,
- depending on the number and type of thermistors connected in series, check that their resistance value at 25 °C is correct.

Example: motor fitted with 3 PTC thermistor probes with a resistance $\leq 250 \Omega$ at 25 °C.

Any value higher than $250 \times 3 = 750 \Omega$ indicates a problem.

⁽¹⁾ PTC: Positive Temperature Coefficient

⁽²⁾ Relay energised: the contacts are shown in the “operating” position.



LT3 SA protection units

Starting

The LT3 SA is normally energised and its internal relay is in the pre-energised position.

The motor is started by operating pushbutton M automatically held in by K (3-wire control circuit).

Thermal fault

The strong increase in resistance of the PTC probes at the moment their temperature reaches the nominal operating temperature (NOT) is detected by the LT3 SA unit and causes the relay to drop out; indicator H comes on, as does the built-in indicator on unit LT3 SA.

Contactor K drops out and pressing button M has no effect.

Reset

As the motor cools, it reaches the reset threshold, 2 to 3°C below the nominal operating temperature.

The relay resets and the motor can be started by pressing button M.

LT3 SM protection units

Operation is very similar to that described above, except for the following:

Reset

After tripping on thermal fault and cooling to the reset threshold, the Test/RESET button on the unit (R1) or a remote reset button (Rd) must be pressed to energise the relay.

The fault is therefore memorised, even though the temperature of the probes has dropped to well below the reset threshold.

Signalling circuit

As the relay is fitted with 2 separate contacts, the signalling voltage may be different from the contactor control voltage.

Test

Pressing the Test/RESET button simulates a fault and causes the relay to drop out: the FAULT indicator comes on, as does the remote signalling indicator. The unit is reset by pressing the Test/RESET button again.

(1) PTC: Positive Temperature Coefficient