

## PHASE and TEMPERATURE Relays

### PHASE AND TEMPERATURE CONTROL

- *Self-powered by the voltage to be monitored.*
- *Visual indication of trip cause.*
- *DIN rail mounting.*
- To protect 3-phase devices and during operation of Lifts & Elevators.
- Suitable for motors with built-in PTC sensors in applications such as elevators, cranes, hoists and similar installations.
- Sensitive to incorrect phase sequence.
- Monitoring of short circuit and ruptured wire in PTC circuit.

#### ST-D model:

Two output relays, one for phase imbalance, phase loss and phase sequence and the other for over temperature.

ST



### PROTECTION FUNCTIONS

- Phase imbalance or phase loss
- Phase sequence
- Overtemperature
- Thermistor short-circuit

ST-D

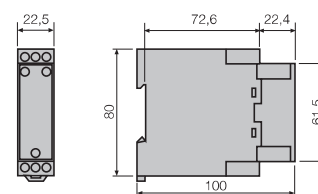


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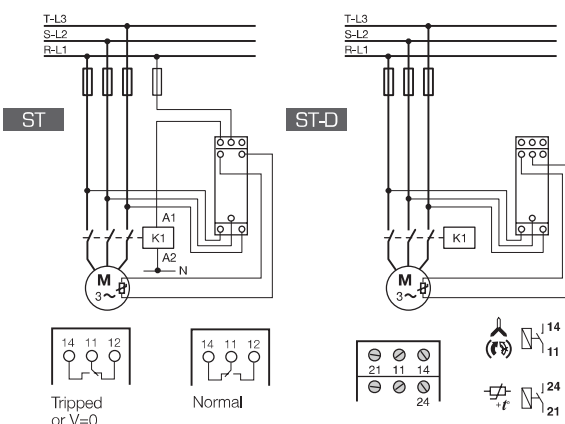
MODELS	ST2	ST4	ST2-D	ST4-D
Nominal voltage of the line to be monitored ( $\pm 15\%$ )	3 x 230 V	3 x 400 V	3 x 230 V	3 x 400 V
Voltage supply ( $\pm 15\%$ )	Self-powered (3-phase)			
Code	12001	12012	12002	12013

CHARACTERISTICS	
Nominal frequency	50/60 Hz
Control range	Phase loss: with resistive loads it trips when a phase loss occurs. With three-phase motors it trips if the voltage regenerated by the motor is lower than 60% of the main voltage. Phase imbalance > 40%
PTC sensor: min/max cold resist - Trip resist	100 $\Omega$ / 1500 $\Omega$ - 2300 $\Omega$
Trip time delay	< 0,1 s
Reset mode	Automatic
Signalling LED's	3 LED's: ON +  +
Output contacts	1 relay with 1 change over NO - NC    2 relays ( + ) with 1 NO
Switching power	$I_{th}$ : 5A; AC15 - 250V - 2A; DC13 - 30V - 2A
Maximum terminal section / screw torque	2,5 mm <sup>2</sup> , No. 22 - 12AWG / 20Ncm, 1,8 LB - IN
Power consumption	7,5 VA (230 Vac) - 11 VA (400 Vac)
Protection degree / weight	IP20 / 0,12 kg    IP20 / 0,13 kg
Storage / operation temperature	-30°C +70°C / -15°C +60°C

### DIMENSIONS ST RELAY (mm)



### WIRING DIAGRAM



### WORK LOGIC

