# Control relay

# ST-D

## Protections

- ⋏ **Phase imbalance or phase loss**
- (📶) **Phase sequence**
- ⌁ **Overtemperature**

## Phase and temperature relay

- To protect 3-phase devices
- 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 broken wire in PTC circuit.
- Two output relays, one for phase imbalance, phase loss and phase sequence and the other for over temperature.
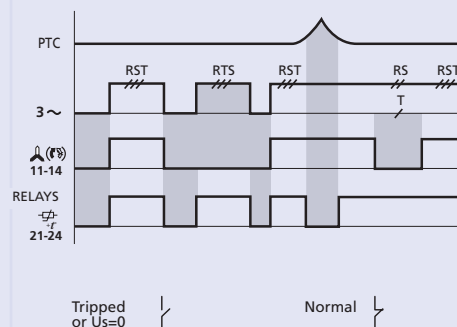
**ST-D**

| Protections | ⋏ (📶) | ⌁ |
|---|---|---|
| **Models** | **ST2-D** | **ST4-D** |
| Nominal voltage of the line to be monitored (±15%) | 3 x 230 V | 3 x 400 V |
| Voltage supply (±15%) | Self-powered (3-phase) | |
| Code no. | 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 inbalance > 40% |
| Hysteresis | - |
| PTC sensor: min/max cold resist - Trip resist | 100Ω / 1500Ω - 2300Ω |
| Trip time delay | < 0,1 s |
| Reset mode | Automatic |
| Signalling LED's | 3 LED's: ON + ⋏ (📶) + ⌁ |
| Output contacts | 2 relays (⋏ (📶)  ⌁ ) with 1 NO |
| Switching power | I$_{th}$: 5A; AC15 - 250V - 2A; DC13 - 30V - 2A |
| Maximum terminal section / screw torque | 2,5 mm², No. 22 - 12AWG / 20Ncm, 1.8 LB - IN |
| Power consumption | 7,5 VA (230 Vac) - 11 VA (400 Vac) |
| Protection degree / weight | IP20 / 0,13 kg |
| Storage / operation temperature | -30°C +70°C / -15°C +60°C |

CE

**Dimensions**

72,6   22,4   22,5

80   61,5

100

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