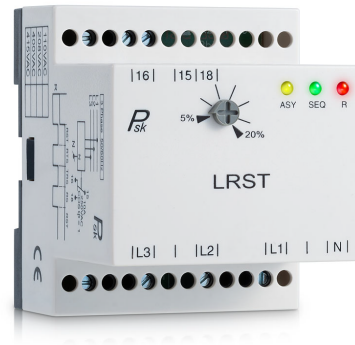


LRST

Phase control relay with asymmetry detection

- Monitors its own supply voltage.
- Detects phase failure, phase sequence and phase asymmetry.
- Detects loss of neutral.
- Detect phase failure with regenerated voltage present (back EMF).
- Asymmetry rate from 5 to 20% of U_n
- Measuring voltage with neutral.
- LED indicates for: relay status, asymmetry and sequence.



Operating

When the phase sequence and voltage are correct, the output relay energizes and the red LED is lit. In the event of a wrong phase sequence, phase failure, total loss of phase, asymmetry between the phases, voltage exceeds or descends (with respect to the adjustment value) and lost of neutral the output relay switches into off-position and the red LED extinguished.

General specifications

- Casing: 60mm
- Asymmetry adjustment: $\pm 5\% \rightarrow \pm 20\%$
- Hysteresis: 3%
- Terminal block protection IP20 acc IEC 60529
- Self-extinguishing plastic housing UL V0 acc IEC 529
- Mounting position: on DIN-rail TS 35 according to EN 50022
- Mounting position: vertically
- Terminal : acc IEC 60947-7-1, IEC 60998-1
- Terminal Capacity: $1 \times 4 \text{mm}^2$ without multicore cable end
 1×0.5 to 2.5mm^2 with/without multicore cable end

Display

- Red LED- relay status (red LED On – relay energizes)
- Yellow LED- Asymmetry (yellow LED On – asymmetry between phase)
- Green LED- Sequence (green LED On – phase sequence wrong)

Incoming supply circuit

- Voltage Failure in one phase detects 190 - 275 Vac
- Symmetry voltage drop in 3 phase detects 190 - 275 Vac
- Frequency: 50 / 60 Hz
- Galvanic isolation of power supply / measurement: No
- Power consumption: 1.8 VA in ~

Output circuit

- Relay: 1 C/O
- Rated voltage: 250 Vac
- Switching capacity ac: 2000 VA (8A / 250V) $\text{COS } \varphi = 1$
- Switching capacity dc: 3 A 30 Vdc
- Max switching capacity ac: 10 A
- Mechanical life: 1×10^6 operations
- Electrical life at 1000 VA $\text{COS } \varphi = 1$: 200.000 operations

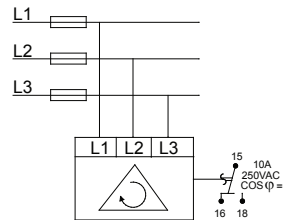
Environmental conditions

- Permissible ambient temperature: $-20^\circ\text{C} \dots +50^\circ\text{C}$
- Storage temperature: $-25^\circ\text{C} \dots +70^\circ\text{C}$
- Transport temperature: $-25^\circ\text{C} \dots +70^\circ\text{C}$
- Relative humidity (acc. IEC 721-3-3 CLASS 3K3): 15% to 85%
- Vibration resistance (acc. IEC 68-2-6): 10 TO 55 H

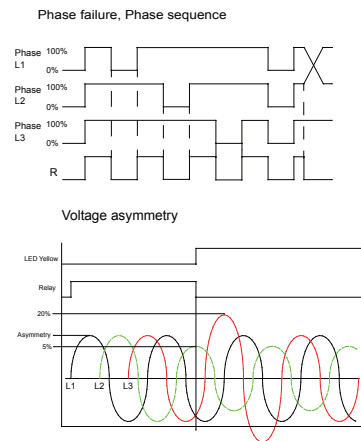
Dimensions & weight

- Width: 62 mm
- Height: 65 mm
- Depth (excl. DIN-profile): 72 mm
- Weight: 201 gram

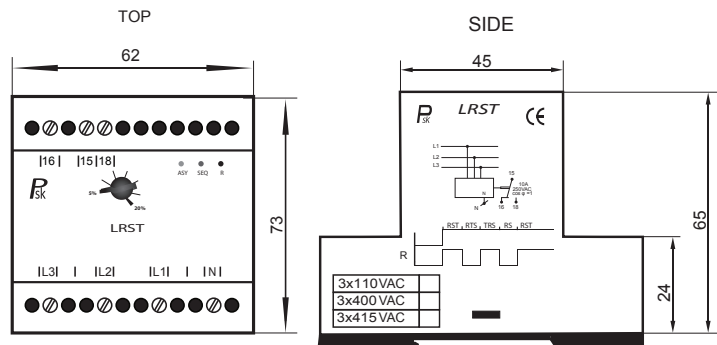
Connections



Function



Dimensions



Ordering information

| | | |
|----------|-----------|--|
| LRST — V | 3x110VAC | |
| | 3x400 VAC | |
| | 3x415 VAC | |