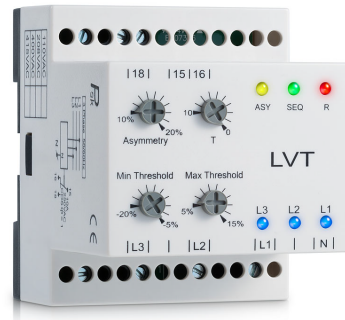


LVT

Phase control relay with voltage and asymmetry detection



Phase / Voltage control relay

- Monitors its own supply voltage.
- Detects Phase failure and Phase sequence.
- Detects asymmetry rate from 10% - 20% of UN.
- Minimum and maximum threshold can be adjusted between -20% / +20%
- Not effected by harmonic distortion
- Detects Loss of one / two phase.
- Detects loss of neutral.
- Detects Phase failure with regenerated voltage present (Back EMF).
- Fixed hysteresis.
- Time delay on recovery, can be adjusted between 0.1 to 10 seconds.
- LED indicates for: relay status, asymmetry, sequence, over voltage and under voltage.

Operating

When the phase sequence and voltage are correct, the output relay energizes and the red LED is lit.

In the event of one or more failure:

- Wrong phase sequence
- Phase failure
- Total loss of phase
- Asymmetry between the phases
- Voltage exceeds or descends (with respect to the adjustment value)
- Loss of neutral
- The output relay switches into off-position and the red LED extinguished.

General specifications

- Supply Voltage: 3 Phase 50/60Hz Refer to ordering information
- Hysteresis: 3% fixed.
- Asymmetry: $\pm 10\% \rightarrow \pm 20\%$
- Symmetry: -20% \rightarrow + 15%
- Protection class open air: IP20
- Protection class enclosed: IP20
- Self-extinguishing plastic housing UL V0 acc IEC 529 Mounting position: on DIN-rail TS 35 according to EN 50022 Terminals: acc IEC 60947 -7 -1, IEC 60998 -1
- Terminal Capacity: 1x4mm² without multicore cable end.
- 1x0.5 to 2.5mm² with/without multicore cable end.

Display

- Red LED displays relay status
- Yellow LED On – asymmetry between Phases
- Green LED On – wrong phase sequence
- Over voltage – LEDs (L1) (L2) (L3) Illuminates Blue Light Respectively
- Under voltage – LEDs (L1) (L2) (L3) Illuminates Orange Light Respectively

Output circuit

Relay: 1 C/O
 Rated voltage: 250VAC
 Switching capacity ac: 2000 VA (8A / 250VAC) COS ϕ = 1
 Switching capacity dc: 6A 30Vdc
 Max switching capacity ac: 10A
 Mechanical life: 1x10⁶ operations
 Electrical life at 1000 VA COS ϕ = 1:200,000 operations

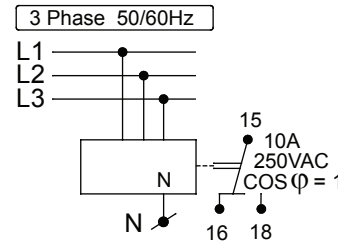
Environmental conditions

- Permissible ambient temperature: -20°C.....+50°C
- Storage temperature: -25°C.....+70°C
- Transport temperature: -25°C.....+70°C
- Relative humidity (acc. IEC 721-3-3 CLASS 3K3): 15% to 85%
- Vibration resistance (acc. IEC 68-2-6): 10 to 55H

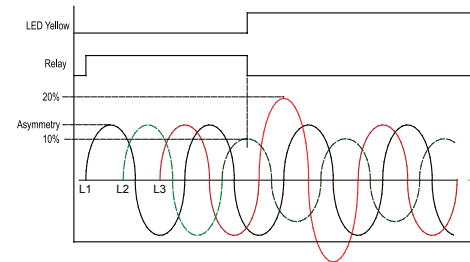
Dimensions & weight

- Width: 62 mm
- Height: 65 mm
- Depth (excl. DIN-profile): 72 mm
- Weight: 215 gram

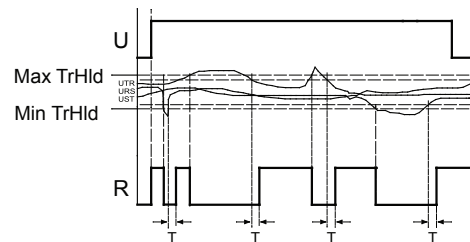
Connections



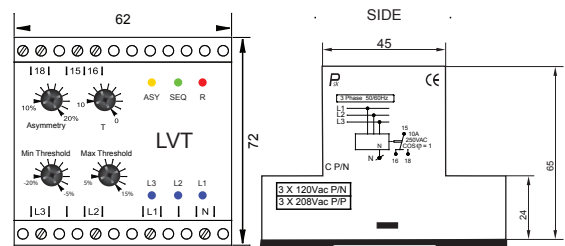
Voltage Asymmetry



Voltage Threshold



Dimensions



Ordering information

LVT — V

3x 120VAC Ph/N
3x 208VAC P/P