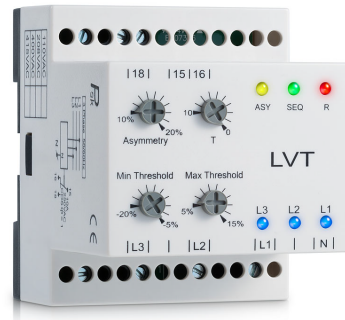


## LVT

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 the table below
- Power consumption 1.0 VA
- Duty cycle: 100%
- 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: 1x4mm<sup>2</sup> without multicore cable end.  
1x0.5 to 2.5mm<sup>2</sup> 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  $\phi = 1$   
 Switching capacity dc: 6A 30Vdc  
 Max switching capacity ac: 10A  
 Mechanical life: 1x10<sup>6</sup> operations  
 Electrical life at 1000 VA COS  $\phi = 1$ : 200,000 operations

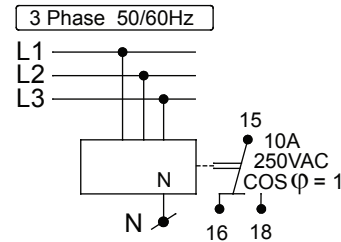
### Environmental conditions

- 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

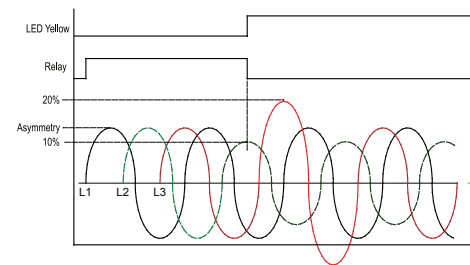
### Dimensions & weight

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

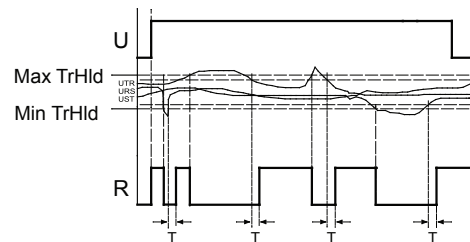
### Connections



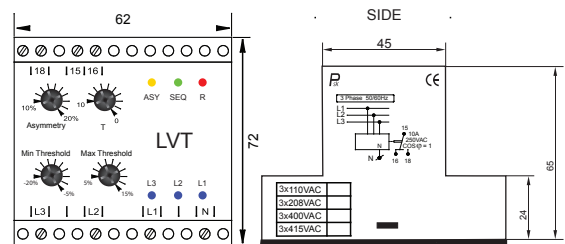
### Voltage Asymmetry



### Voltage Threshold



### Dimensions



### Ordering information

LVT	—	V	3x110VAC	
			3x208VAC	
			3x400VAC	
			3x415VAC	