



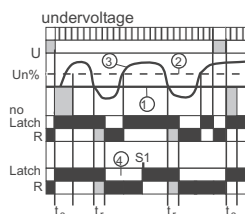
TCV-H

overview

- ◆ AC or DC over or under voltage monitor
- ◆ DPCO output max. 6A
- ◆ 3 measuring ranges 0.5 - 600V RMS
- ◆ level and hysteresis adjustments
- ◆ programmable latch/no latch alarm
- ◆ LED indicators for power supply, contact and reaction timer
- ◆ 45mm DIN rail mount housing

Function

- Control relay active
- Control relay passive
- Contact closed
- Contact open



- ① Threshold "Un"
- ② Hysteresis
- ③ Monitored current
- ④ Latch

ts... Start surge delay

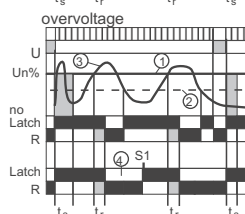
tr... Reaction timer

T... LED indication reaction timer

On the application of the supply voltage the output relay pulls in and the timing period ts starts.

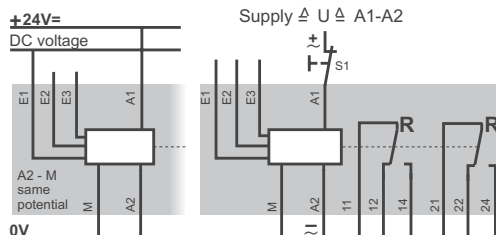
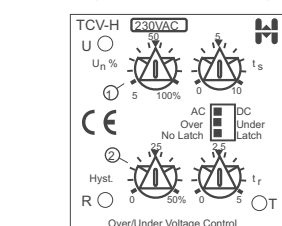
Voltage monitor with no latch (auto reset) function

At the end of ts, when the measured voltage exceeds the set point (Hyst), the timing period tr starts. At the end of tr, if the measured value still exceeds the set point the output relay changes over. The output relay resets immediately when the measured voltage reaches the hysteresis set value.



Voltage monitor with latch (manual reset) function

At the end of ts, when the measured voltage exceeds the set threshold, timing period tr starts. At the end of tr if the measured value still exceeds the set point the output relay changes over and remains in this condition, even when the measured voltage reaches the hysteresis set value. An external reset (S1) must be operated to reset the relay.



| input | range | resistance | U _{EMAX} (20°C) |
|-------|------------|------------|--------------------------|
| E1-M | 0,5V - 10V | 3,9 kOhm | 30V |
| E2-M | 3V - 60V | 68 kOhm | 130V |
| E3-M | 30V - 600V | 820 kOhm | 660V |

| part no | supply | output | sup. galv. iso* | housing types |
|--------------|-------------|--------|-----------------|---------------|
| TCV-H 230Vac | 230V~ 2,5VA | DPCO | yes | C |
| TCV-H 115Vac | 115V~ 2,5VA | DPCO | yes | C |
| TCV-H 24Vac | 24V~ 2,5VA | DPCO | yes | C |
| TCV-H 24Vdc | 24V= 2W | DPCO | no | C |

* The measurement input is galvanically isolated from the power supply

specification

| | |
|----------------------------|--|
| supply voltage variation | nominal voltage +10% / -15% |
| frequency range | 48 - 63 Hz |
| duty cycle | 100% |
| start surge delay | 0 - 10s |
| reaction time | 0 - 5s |
| reset time | < 100ms |
| output relay specification | max. 6A 230V~ |
| Ue/Ie AC-15 | 120V/4A 240V/3A |
| Ue/Ie DC-13 | 24V/2A |
| expected life time | DPCO SPCO |
| mechanical | 2 x 10 ⁶ resp. 1 x 10 ⁷ operations |
| electrical | 1 x 10 ⁵ resp. 1 x 10 ⁵ operations |
| screws | pozidrive 1 |
| screw tightening torque | 0,6...0,8Nm |
| operating conditions | -20 to +60 °C non condensing |

* EN 60947-5-1 VDE 0435

ordering information