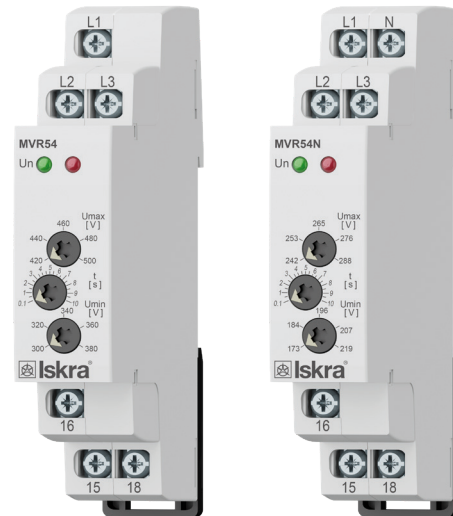


MVR54, MVR54N

Relay for monitoring over / under voltage, phase sequence and failure



Relays serve to monitor voltage, phase failure and sequence in switchboards and for protection of devices in 3-phase mains.

Functions and Features

- ▶ Relay in 3-phase main monitors the size of phase voltage
- ▶ It is possible to set two independent voltage levels and thus monitor undervoltage and overvoltage independently
- ▶ In normal state when voltage is within set levels, output relay is closed and red LED shines
- ▶ In case voltage exceeds or falls below the set levels, output relay opens and red LED shines (LED indicates faulty state – flashes when timing)
- ▶ In case supply voltage falls below 60% U_n (U_{OFF} lower level) relay immediately opens without delay and faulty state is indicated by red LED
- ▶ In case timing is in progress and faulty state is indicated, timing is immediately stopped

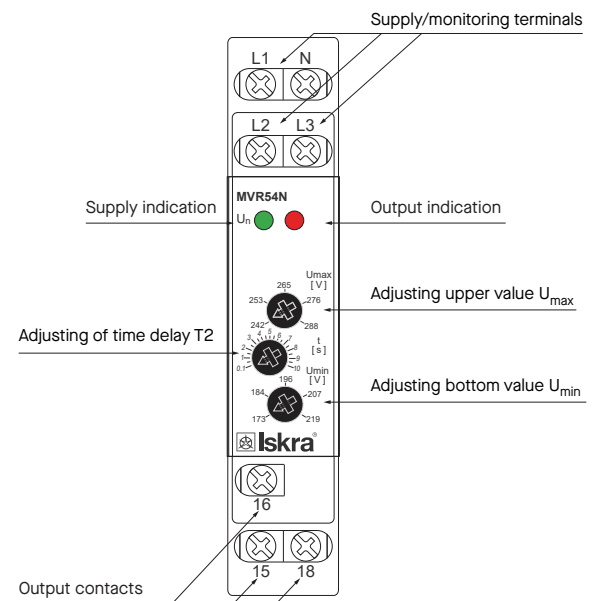
Technical Data

- ▶ It is possible to set upper and lower level of monitoring voltage
- ▶ Adjustable time delay eliminates short voltage peaks and failures in the mains
- ▶ Supply is done from monitored voltage
- ▶ Faulty state is indicated by red LED and by opening of output relay contact
- ▶ Output contact 1x changeover / SPDT 8A / 250 V AC1
- ▶ Types:
 - ▶ **MVR 54** - supply from all phases which means that relay is functional also in case when one phase is faulty
 - ▶ **MVR 54N** - supply L1-N, means that relay monitors also failure of neutral wire
- ▶ 1-module width, DIN rail mounting

MVR 54, MVR 54N characteristics

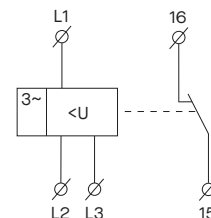
| Technical data | MVR 54 | MVR 54N |
|------------------------------------|--|---------------------------|
| General | | |
| Supply and measuring | L1, L2, L3 | L1, L2, L3, N |
| Supply terminals | L1, L2, L3 | L1, N |
| Supply / measured voltage | 3 × 400 V / 50 Hz | 3 × 400 V / 230 V / 50 Hz |
| Level U_{max} | 105 - 125 % U_n | |
| Level U_{min} | 75 - 95 % U_n | |
| Burden | max. 2 VA | |
| Hysteresis | 2 % | |
| Max. permanent overload | AC 3 × 460 V | AC 3 × 265 V |
| Peak overload < 1 ms | AC 3 × 500 V | AC 3 × 288 V |
| Time delay T1 | max. 500 ms | |
| Time delay T2 | adjustable 0.1 - 10 s | |
| Output | | |
| Number of contacts | 1 x changeover / SPDT (AgNi / Silver Alloy) | |
| Current rating | 8 A / AC1 | |
| Breaking capacity | 2500 VA / AC1, 240 W / DC | |
| Inrush current | 10 A | |
| Switching voltage | 250 V AC1 / 24 V DC | |
| Min. breaking capacity DC | 500 mW | |
| Indication of state | red LED | |
| Mechanical life | 1 × 10 ⁷ | |
| Electrical life (AC1) | 1 × 10 ⁵ | |
| Other information | | |
| Operating temperature | -20 ... +55 °C | |
| Storage temperature | -30 ... +70 °C | |
| Electrical strength | 4 kV (supply - output) | |
| Operating position | any | |
| Mounting | DIN rail EN 60715 | |
| Protection degree | IP 40 from front panel / IP 10 terminals | |
| Overvoltage category | III. | |
| Pollution degree | 2 | |
| Max. cable size (mm ²) | solid wire max. 2 × 2.5 or 1 × 4; with sleeve max. 1 × 2.5 or 2 × 1.5 | |
| Dimensions | 90 × 17.6 × 64 mm | |
| Weight | 69 g | 67 g |
| Standards | EN 60255-6, EN 61010-1 | |

Description

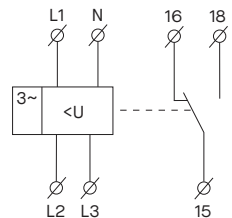


Symbol

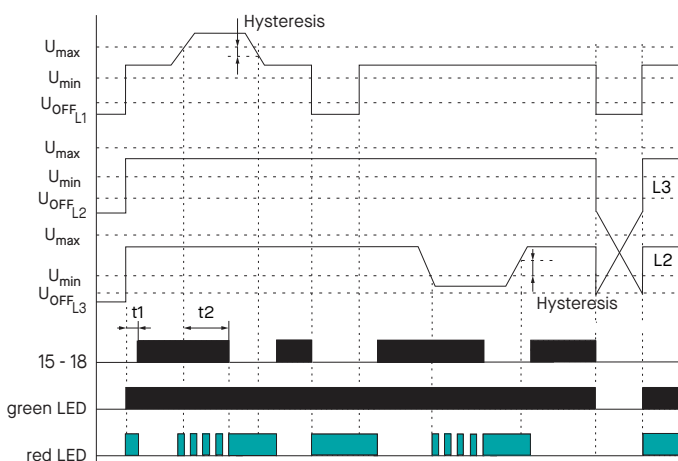
MVR 54



MVR 54N

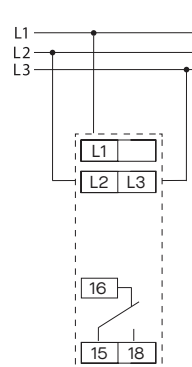


Function



Connection

MVR 54



MVR 54N

