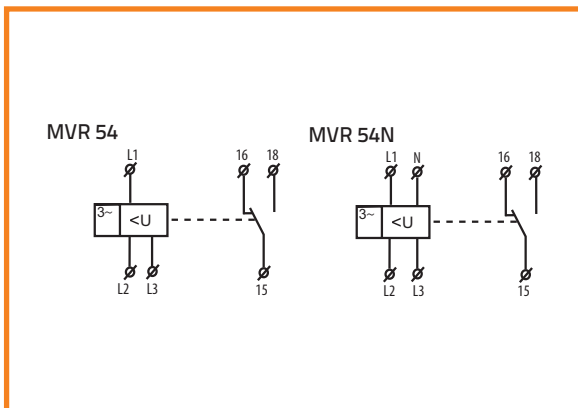


# Relay for monitoring over/under voltage, phase sequence and failure MVR 54, MVR 54N

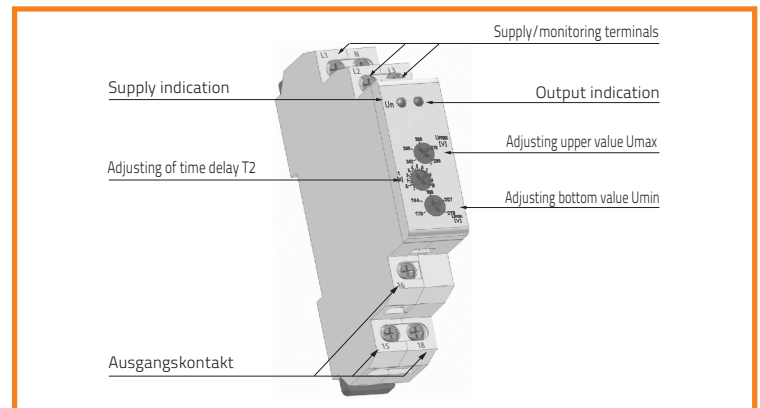


- It serves to monitor voltage, phase failure and sequence in switchboards, protection of devices in 3-phase mains
- It is possible to set upper and lower level of monitoring voltage
- Adjustable time delay eliminates short voltage peaks and failures in the main
- Supply is done from monitored voltage
- Versorgung des Gerätes aus gemessener Spannung
- Faulty state is indicated by red LED and by opening of output relay contact
- Output contact 1x changeover / SPDT 8 A / 250 V AC1
- In case supply voltage falls below 60 %Un ( $U_{off}$  lower level) relay immediately opens without delay
- **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, DIN rail mounting

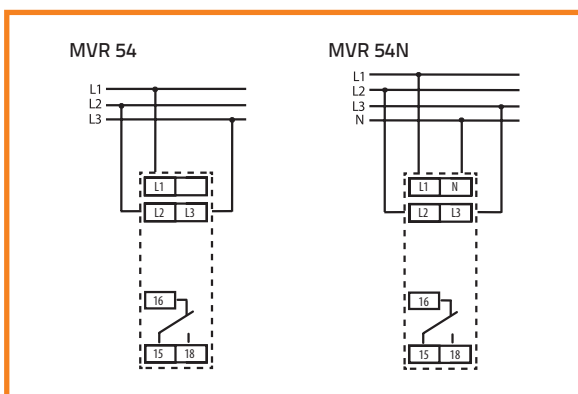
## Symbol



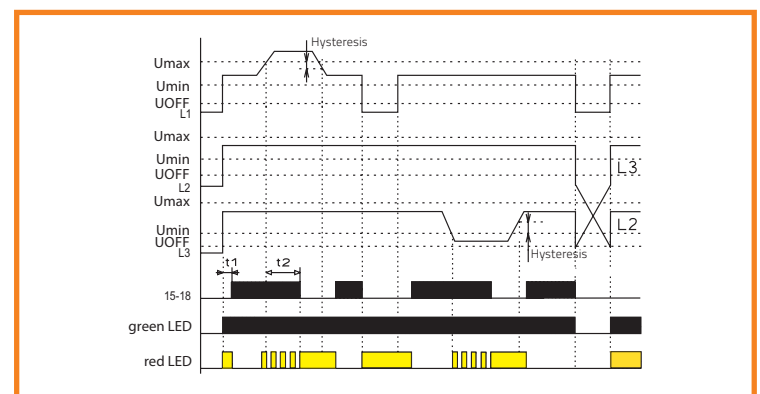
## Description



## Connection



## Function



## Function description

Relay in 3-phase main monitors size of phase voltage. It is possible to set two independent voltage levels and thus it is possible to set two independent voltage levels and monitor e.g. 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 %Un ( $U_{off}$  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	MVR 54	MVR 54N
Supply and measuring	L1, L2, L3	L1, L2, L3, N
Supply terminals	L1, L2, L3	L1, N
Supply/measured voltage	3 x 400 V / 50 Hz	3 x 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 x 460 V	AC 3 x 265 V
Peak overload <1ms	AC 3 x 500 V	AC 3 x 288 V
Time delay T1	max. 500 ms	
Time delay T2	adjustable 0.1-10 s	
<b>Output</b>		
Number of contacts	1x 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	$1 \times 10^7$	
Electrical life (AC1)	$1 \times 10^5$	
<b>Other information</b>		
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 <sup>2</sup> )	solid wire max. 2x2.5 or 1x4 ; with sleeve max. 1x2.5 or 2x1.5	
Dimensions	90 x 17,6 x 64 mm	
Weight	69 g	67 g
Standards	EN 60255-6, EN 61010-1	