



- 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
- Supplied from monitored voltage
- 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 % U_{OFF} (lower level) relay immediately opens without delay
- **HRN-54** – supply from all phases which means that relay is functional also in case when one phase is faulty
- **HRN-54N** – supply L1-N, means that relay monitors also failure of neutral wire
- 1-MODULE, DIN rail mounting

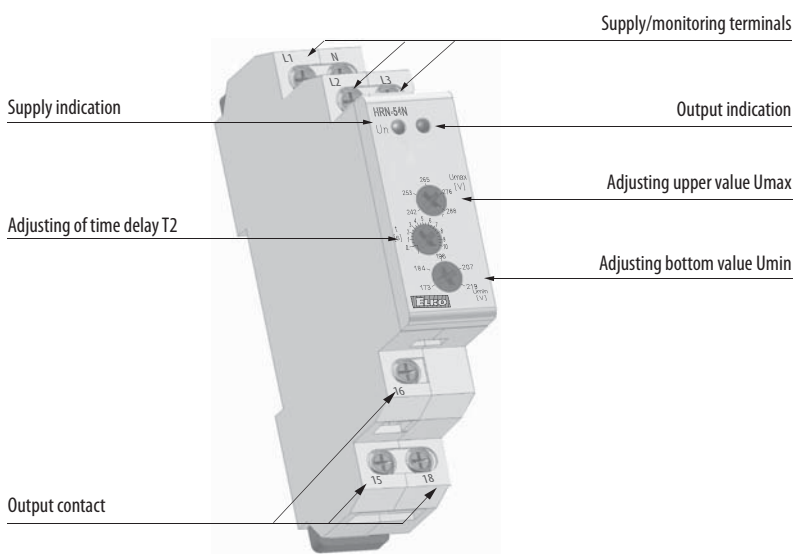
EAN code

HRN-54: 8595188137201

HRN-54N: 8595188137218

Technical parameters	HRN-54	HRN-54N
Supply and measuring:	L1, L2, L3	L1, L2, L3,N
Supply terminals:	L1, L2, L3	L1, N
Supply/measured voltage:	3x400 V / 50 Hz	3x400V/230V / 50 Hz
Level Umax:	105-125 % Un	
Level Umin:	75-95 % Un	
Burden:	max. 2 VA	
Hysteresis:	2%	
Max. permanent overload:	AC 3x460 V	AC 3x265 V
Peak overload <1ms:	AC 3x500 V	AC 3x288 V
Time delay T1:	max. 500 ms	
Time delay T2:	adjustable 0.1-10 s	
Output		
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:	1x10 ⁷	
Electrical life (AC1):	1x10 ⁵	
Other information		
Operating temperature:	-20 °C to +55 °C (-4 °F to 131 °F)	
Storage temperature:	-30 °C to +70 °C (-22 °F to 158 °F)	
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 (mm²):	solid wire max. 2x2.5 or 1x4, with sleeve max. 1x2.5 or 2x1.5	
Dimensions:	90 x 17.6 x 64 mm (3.5" x 0.7" x 2.5")	
Weight:	69 g	67 g
Standards:	EN 60255-6, EN 61010-1	

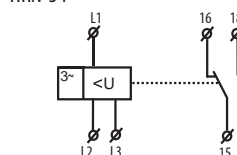
Description



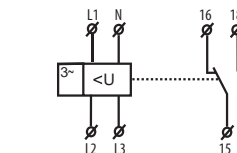
Symbol

Connection

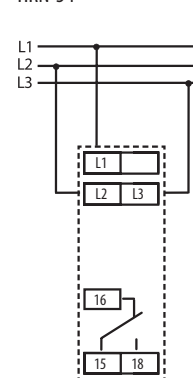
HRN-54



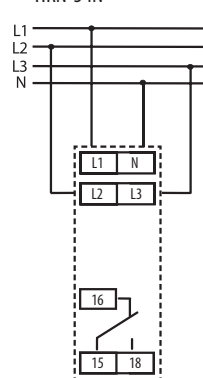
HRN-54N



HRN-54



HRN-54N



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 % 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.

