

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, L2, L3, N |
| Supply/measured voltage: | $3 \mathrm{x} 400 \mathrm{~V}(50-60 \mathrm{~Hz})$ | $3 \times 400 \mathrm{~V} / 230 \mathrm{~V}(50-60 \mathrm{~Hz})$ |
| Burden: | max. $2 \mathrm{VA} / 1 \mathrm{~W}$ |  |
| Max. dissipated power <br> (Un + terminals): |  | W |
| Level Umax: | 105-125 \% Un |  |
| Level Umin: | 75-95\% Un |  |
| Hysteresis: | 2 \% |  |
| Max. permanent overload: | AC $3 \times 460 \mathrm{~V}$ | AC $3 \times 265 \mathrm{~V}$ |
| Peak overload <1ms: | AC $3 \times 500 \mathrm{~V}$ | AC $3 \times 288 \mathrm{~V}$ |
| 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: | 2000 VA/AC1, 240 W/DC |  |
| Inrush current: | 10 A |  |
| Switching voltage: | 250 V AC/24V DC |  |
| Indication of state: | red LED |  |
| Mechanical life: | 60.000.000 ops. |  |
| Electrical life (AC1): | 150.000 ops. |  |
| Other information |  |  |
| Operating temperature: | $-20^{\circ} \mathrm{C}$ to $55^{\circ} \mathrm{C}\left(-4{ }^{\circ} \mathrm{F}\right.$ to $\left.131{ }^{\circ} \mathrm{F}\right)$ |  |
| Storage temperature: | $-30^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}\left(-22^{\circ} \mathrm{F}\right.$ to $\left.158{ }^{\circ} \mathrm{F}\right)$ |  |
| Electrical strength: | 4 kV (supply - output) |  |
| Operating position: | any |  |
| Mounting: | DIN rail EN 60715 |  |
| Protection degree: | IP40 from front panel/IP10 terminals |  |
| Overvoltage category: | III. |  |
| Pollution degree: | 2 |  |
| Max. cable size ( $\mathrm{mm}^{2}$ ): | solid wire max. $2 \times 2.5$ or $1 \times 4 /$ <br> with sleeve max. $1 \times 2.5$ or $2 \times 1.5$ (AWG 12) |  |
| Dimensions: | $90 \times 17.6 \times 64 \mathrm{~mm}\left(3.5^{\prime \prime} \times 0.7^{\prime \prime} \times 2.5^{\prime}\right)$ |  |
| Weight: | $62 \mathrm{~g} \mathrm{(2.19} \mathrm{oz)}$. | 63 g (2.22 oz.) |
| Standards: | EN 60255-1, EN 60255-26, EN 60255-27 |  |

## 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 ( $U_{\text {off }}$ 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.

- 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.
- In case supply voltage falls below $60 \%$ Un ( $\mathrm{U}_{\text {off }}$ 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, L2, L3-N, means that relay monitors also failure of neutral wire.


## Description

Supply/monitoring terminals
(L1-L2-L3)
Adjusting of time delay (T2)
Output contact
(15-16-18)

## Function



## Connection

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