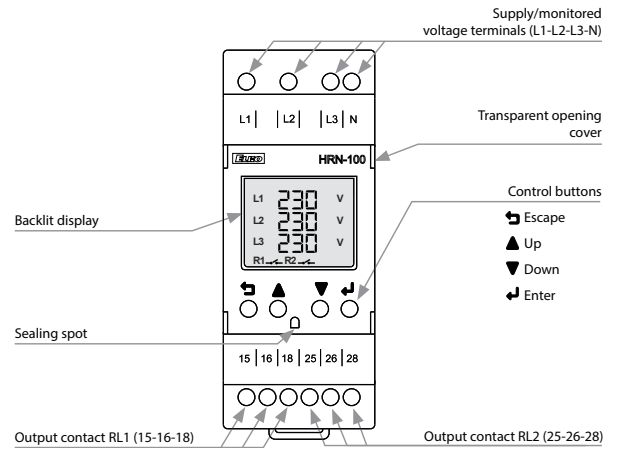


Technical data

Frequency and voltage monitoring relay HRN-100

| Technical data                                       |   |
|--|---|
|  | HRN-100   |
| <b>Supply</b>  |   |
| Supply and measuring terminals                       | L1, L2, L3, (N)   |
| Supply and monitored voltage                         | $U_{LN} = 3 \sim 90 - 288 \text{ V}$ , (AC 45-65 Hz)<br>$U_{LL} = 3 \sim 155 - 500 \text{ V}$ , (AC 45-65 Hz) |
| Power consumption (max.)                             | 5 VA  |
| <b>Measuring circuit</b>                             |   |
| Selection of the measured circuit                    | Phase voltage - 3 phase, 4 wire<br>Line voltage - 3 phase, 3 wire   |
| Adjustable upper (OV) and lower (UV) voltage levels  | Phase voltage: 90 - 288 VAC<br>Line voltage: 155 - 500 VAC  |
| Upper (HC) / lower (LC) limit voltage                | Phase voltage: 310 VAC / 85 VAC<br>Line voltage: 535 VAC / 150 VA   |
| Adjustable upper (OF) and lower (UF) frequency level | 45 - 65 Hz  |
| Adjustable asymmetry                                 | 5 - 99 VAC / 2 - 50%  |
| Adjustable voltage and frequency hysteresis level    | 3 - 20 VAC (OV,UV, HC, LC)<br>0.5 - 2 Hz (OF, UF)   |
| Adjustable hysteresis asymmetry                      | 3 - 99 VAC / 2 - 15%  |
| Accuracy of measured voltage                         | +/- 5V  |
| Accuracy of measured frequency                       | +/- 0,3 Hz  |
| Adjustable delay after supply connection $P_{on}$    | 1.5 sec 0 - 999 s<br>(HW initialization 250 ms)   |
| Adjustable delay $T_{on}$                            | 0,5 - 999 s   |
| Adjustable delay $T_{off}$                           | 0,1 - 999 s   |
| Fixed delay  | <100 ms (phase sequence, failure)<br><200 ms (HC, LC), <500 ms (neutral fail)                                 |
| <b>Output</b>  |   |
| Number of contacts                                   | 2x CO (AgSnO <sub>2</sub> )   |
| Rated current  | 5A/AC1  |
| Switching power                                      | 1200VA/AC1, 150W/DC1  |
| Switched voltage                                     | 240V AC/30V DC  |
| Max. output power dissipation                        | 5W  |
| Mechanical life (AC1)                                | 1x10 <sup>7</sup>   |
| Electrical life                                      | 1x10 <sup>5</sup>   |
| <b>Other data</b>                                    |   |
| Operating temperature                                | -10.. +60 °C  |
| Storage temperature                                  | -20.. +70 °C  |
| Electrical strength                                  | 4kV (supply - output)   |
| Operating position                                   | any   |
| Mounting   | DIN rail EN 60715   |
| Protection degree                                    | IP20 terminals/IP40 from front panel  |
| Overvoltage category                                 | III   |
| Pollution degree:                                    | 2   |
| Cable size   | max. 1x 2,5 mm <sup>2</sup> , max. 2x 1,5 mm <sup>2</sup> /<br>with sleeve max. 1x 2,5 mm <sup>2</sup>        |
| Dimensions:  | 90 x 36 x 66,5 mm   |
| Standards:   | EN 61812-1, EN IEC 63044  |

Description



Controlling elements

