

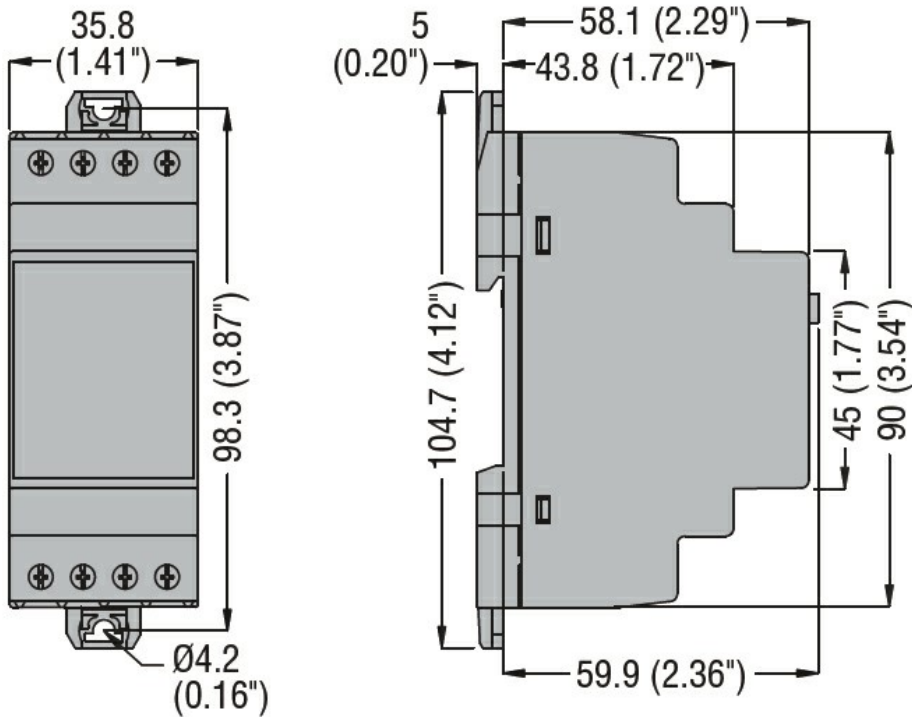


### General characteristics

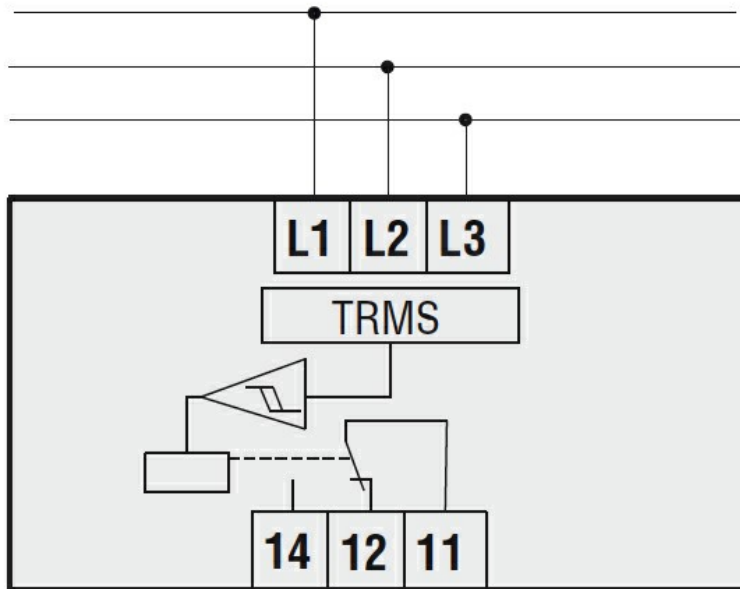
|  |  |                 |  |
|--|--|-----------------|--|
| Description  | Minimum and maximum AC voltage, phase loss, incorrect phase sequence and asymmetry relay |                 |  |
| Type of system   | Three-phase without neutral  |                 |  |
| <b>Power supply</b>  |  |                 |  |
| Auxiliary supply voltage $U_s$                                     | Self powered   |                 |  |
| Operating voltage range  | 0.7...1.2 $U_e$  |                 |  |
| Rated frequency  | Hz   | 50/60 $\pm 5\%$ |  |
| Power consumption Max  | VA   | 30              |  |
| Power dissipation Max  | W  | 2.5             |  |
| <b>Control circuit</b>   |  |                 |  |
| Rated voltage to control ( $U_e$ )                                 | min  | VAC             | 380  |
|  | Max  | VAC             | 575  |
| Voltage set-point ( $\%U_e$ )                                      | min  | %               | 80...95  |
|  | Max  | %               | 105...115                                      |
| Asymmetry set-point ( $\%U_e$ )                                    |  | %               | 5...15   |
| Tripping delay   |  | s               | 0.1...20                                       |
| Resetting time   |  | s               | 0.5  |
| Resetting hysteresis   |  | %               | 3  |
| Instantaneous tripping for $U_e$                                   |  |                 | Voltage $< 70\% U_e$                           |
| Type of reset  |  |                 | Automatic                                      |
| Repeat accuracy  |  | %               | $\pm 0.1$                                      |
| Tripping time for phase loss                                       |  | ms              | 60   |
| <b>Relay outputs</b>   |  |                 |  |
| Number of relays   |  | Nr.             | 1  |
| Relay state  |  |                 | Normally energised<br>De-energises at tripping |
| Contact arrangement  |  |                 | 1 changeover SPDT                              |
| Rated operational voltage AC (IEC)                                 |  | VAC             | 250  |
| Maximum switching voltage  |  | VAC             | 400  |
| IEC Conventional free air thermal current $I_{th} \leq 40^\circ C$ |  | A               | 8  |
| UL/CSA and IEC/EN 60947-5-1 designation                            |  |                 | B300   |
| Electrical life (with rated load)                                  |  | cycles          | 100000   |
| Mechanical life  |  | cycles          | 3000000  |

### Functions

|                                       |                       |     |                 |   |
|---------------------------------------|-----------------------|-----|-----------------|---|
| Modular version                       |                       |     |                 | 2U  |
| Minimum AC voltage                    |                       |     |                 | Yes   |
| Maximum AC voltage                    |                       |     |                 | Yes   |
| Phase loss                            |                       |     |                 | Yes   |
| Incorrect phase sequence              |                       |     |                 | Yes   |
| Asymmetry                             |                       |     |                 | No  |
| <b>Indications</b>                    |                       |     |                 |   |
| Indication                            |                       |     |                 | 1 green LED for power on and tripping and 3 red LEDs for tripping |
| <b>Connections</b>                    |                       |     |                 |   |
| Terminals type                        |                       |     |                 | Screw   |
| Tightening torque for terminals       |                       | max | Nm              | 0.8   |
|                                       |                       | max | lbin            | 7   |
| Conductor cross section               |                       |     |                 |   |
|                                       | AWG/Kcmil             | min | AWG             | 24  |
|                                       |                       | Max | AWG             | 12  |
|                                       | IEC                   | min | mm <sup>2</sup> | 0.2   |
|                                       |                       | Max | mm <sup>2</sup> | 4   |
| <b>Insulations</b>                    |                       |     |                 |   |
| Rated insulation voltage Ui           |                       |     | V               | 600   |
| Rated impulse withstand voltage Uimp  |                       |     | kV              | 6   |
| Operating frequency withstand voltage |                       |     | kV              | 4   |
| <b>Ambient conditions</b>             |                       |     |                 |   |
| Temperature                           |                       |     |                 |   |
|                                       | Operating temperature | min | °C              | -20   |
|                                       |                       | max | °C              | +60   |
|                                       | Storage temperature   | min | °C              | -30   |
|                                       |                       | max | °C              | +80   |
| <b>Housing</b>                        |                       |     |                 |   |
| Execution (n° of modules)             |                       |     |                 | 2   |
| Material                              |                       |     |                 | Self-extinguishing polyamide                                      |
| Mounting                              |                       |     |                 | 35mm DIN rail (IEC/EN 60715)                                      |
| IEC degree of protection              |                       |     |                 | IP40 on front; IP20 at terminals                                  |
| Dimensions (W x H x D)                |                       |     | mm              | 35.8 x 104.7 x 64.9   |
| Weight                                |                       |     | g               | 130   |
| <b>Dimensions</b>                     |                       |     |                 |   |



### Wiring diagrams



### Certifications and compliance

#### Compliance

CSA C22.2 n° 14

IEC/EN 60255-5

IEC/EN 60335-2-89

IEC/EN 61000-6-2

IEC/EN 61000-6-3

UL 508

#### Certificates

CSA C22.2 n. 60335-2-40:22 LZGH A2L

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CSA C22.2 No. 60335-2-89:21 LZGH A2L

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UL 60335-2-40 LZGH A2L

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UL 60335-2-89 LZGH A2L

**ETIM classification**

ETIM 8.0

EC001438 -  
Voltage  
monitoring relay