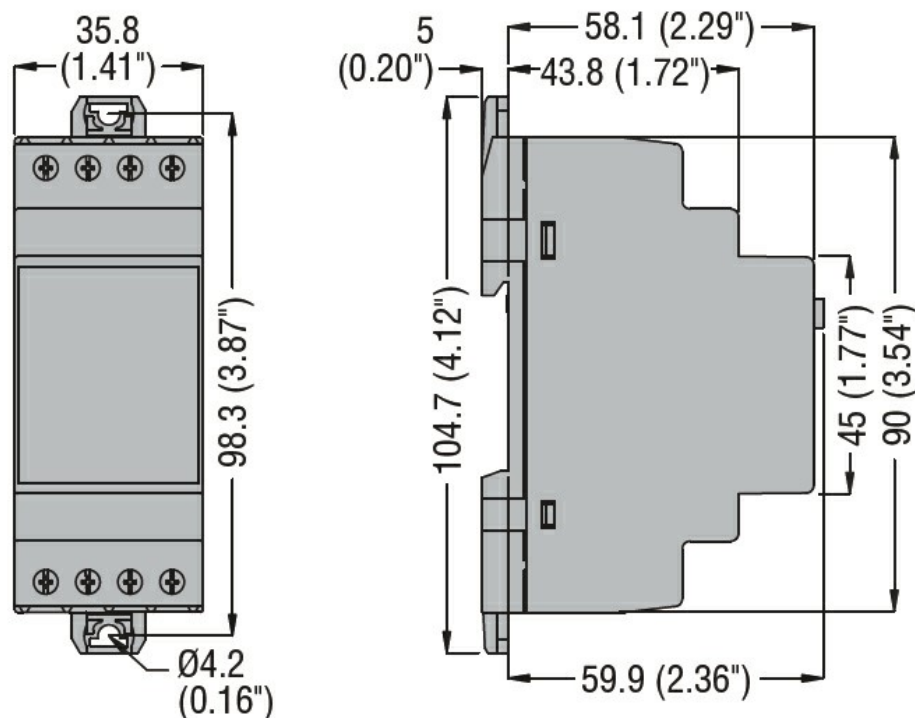




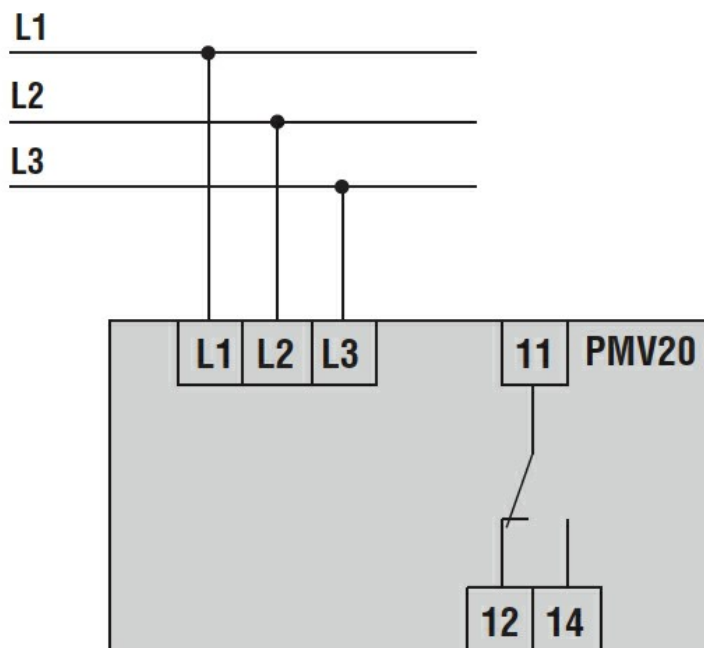
## General characteristics

|                                                                    |     |                 |                                                |
|--------------------------------------------------------------------|-----|-----------------|------------------------------------------------|
| Description                                                        |     |                 | Phase loss and incorrect phase sequence relay  |
| Type of system                                                     |     |                 | Three-phase without neutral                    |
| Power supply                                                       |     |                 |                                                |
| Auxiliary supply voltage $U_s$                                     |     |                 | Self powered                                   |
| Operating voltage range                                            |     |                 | 0.85...1.1 $U_e$                               |
| Rated frequency                                                    | Hz  | 50/60 $\pm 5\%$ |                                                |
| Power consumption Max                                              | VA  | 28              |                                                |
| Power dissipation Max                                              | W   | 2.5             |                                                |
| Control circuit                                                    |     |                 |                                                |
| Rated voltage to control ( $U_e$ )                                 |     |                 |                                                |
|                                                                    | min | VAC             | 208                                            |
|                                                                    | Max | VAC             | 575                                            |
| Tripping delay                                                     | s   | 0.06            |                                                |
| Resetting time                                                     | s   | 0.5             |                                                |
| Resetting hysteresis                                               | %   | 5               |                                                |
| Instantaneous tripping for $U_e$                                   |     |                 | Voltage $< 70\% U_e$                           |
| Type of reset                                                      |     |                 | Automatic                                      |
| Repeat accuracy                                                    | %   | $\leq \pm 1$    |                                                |
| Tripping time for phase loss                                       | ms  | 60              |                                                |
| Relay outputs                                                      |     |                 |                                                |
| 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                                                 |     |                 | No                                             |
| Maximum AC voltage                                                 |     |                 | No                                             |
| Phase loss                                                         |     |                 | Yes                                            |
| Incorrect phase sequence                                           |     |                 | Yes                                            |
| Asymmetry                                                          |     |                 | No                                             |
| Indications                                                        |     |                 |                                                |

|                                       |  |  |                                       |                     |     |
|---------------------------------------|--|--|---------------------------------------|---------------------|-----|
| Indication                            |  |  | 1 green LED for power on and tripping |                     |     |
| Connections                           |  |  |                                       |                     |     |
| 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                                   | mm²                 | 0.2 |
|                                       |  |  | Max                                   | mm²                 | 4   |
| Insulations                           |  |  |                                       |                     |     |
| Rated insulation voltage Ui           |  |  | V                                     | 600                 |     |
| Rated impulse withstand voltage Uimp  |  |  | kV                                    | 6                   |     |
| Operating frequency withstand voltage |  |  | kV                                    | 4                   |     |
| Ambient conditions                    |  |  |                                       |                     |     |
| Temperature                           |  |  |                                       |                     |     |
| Operating temperature                 |  |  | min                                   | °C                  | -20 |
|                                       |  |  | max                                   | °C                  | +60 |
| Storage temperature                   |  |  |                                       |                     |     |
|                                       |  |  | min                                   | °C                  | -30 |
|                                       |  |  | max                                   | °C                  | +80 |
| Housing                               |  |  |                                       |                     |     |
| 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                                     | 120                 |     |
| Dimensions                            |  |  |                                       |                     |     |



#### 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

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#### ETIM classification

ETIM 8.0

EC001438 -  
Voltage  
monitoring relay