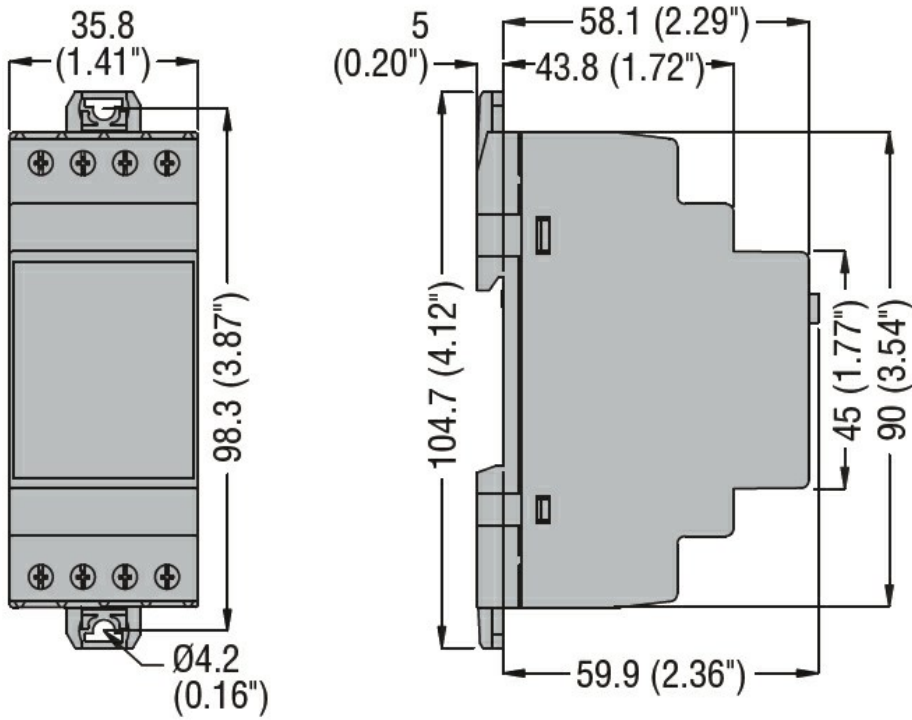


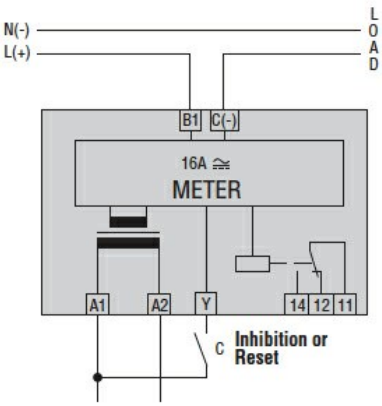
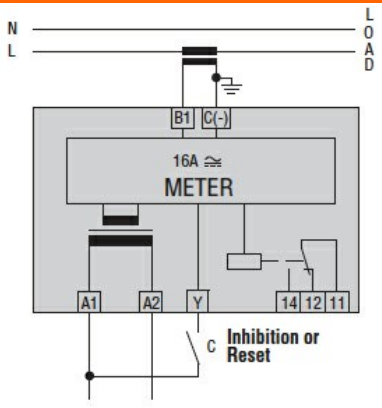


|  |  |                 |                                    |
|--|--|-----------------|------------------------------------|
| Product designation                                | Current monitoring relays                      |                 |                                    |
| Product type designation                           | PMA20  |                 |                                    |
| <b>General characteristics</b>                     |  |                 |                                    |
| Description  | AC/DC maximum current monitoring relay         |                 |                                    |
| Type of system                                     | Single-phase                                   |                 |                                    |
| <b>Power supply</b>                                |  |                 |                                    |
| Auxiliary supply voltage $U_s$                     | 24...240VAC/DC                                 |                 |                                    |
| Operating voltage range                            | 0.85...1.1 $U_s$                               |                 |                                    |
| Rated frequency                                    | Hz   | 50/60 $\pm 5\%$ |                                    |
| Power consumption Max                              | VA   | 3.2             |                                    |
| Power dissipation Max                              | W  | 1.6             |                                    |
| <b>Control circuit</b>                             |  |                 |                                    |
| Rated current ( $I_e$ )                            | A  | 5 or 16         |                                    |
| Overload capacity                                  | 5 $I_e$ for 1s - 160A for 10ms - Constant 16A  |                 |                                    |
| Connection   | Direct or by current transformer               |                 |                                    |
| Current set-point (% $I_e$ )                       | Max  | %               | 5...100                            |
| Tripping delay                                     |  | s               | 0.1...30                           |
| Resetting time                                     |  | s               | 0.1...30                           |
| Resetting hysteresis                               |  | %               | 1...50                             |
| Inhibition time                                    |  | s               | 1...60                             |
| Type of reset                                      | Automatic or manual                            |                 |                                    |
| External input                                     | Resetting / Inhibition                         |                 |                                    |
| Repeat accuracy                                    |  | %               | $\pm 1$ (with constant parameters) |
| <b>Relay outputs</b>                               |  |                 |                                    |
| Number of relays                                   | Nr.  | 1               |                                    |
| Relay state  | Normally energised / De-energised (selectable) |                 |                                    |
| Contact arrangement                                | 1 changeover SPDT                              |                 |                                    |
| Rated operational voltage AC (IEC)                 | VAC  | 250             |                                    |
| Maximum switching voltage                          | VAC  | 400             |                                    |
| IEC Conventional free air thermal current $I_{th}$ | A  | 8               |                                    |
| UL/CSA and IEC/EN 60947-5-1 designation            | B300   |                 |                                    |

|                                       |                       |        |  |
|---------------------------------------|-----------------------|--------|--|
| Electrical life (with rated load)     |                       | cycles | 100000   |
| Mechanical life                       |                       | cycles | 30000000   |
| <b>Functions</b>                      |                       |        |  |
| Modular version                       |                       |        | 2U   |
| Maximum AC/DC current                 |                       |        | Yes  |
| Minimum or maximum AC/DC current      |                       |        | No   |
| Minimum and maximum AC/DC current     |                       |        | No   |
| <b>Indications</b>                    |                       |        |  |
| Indication                            |                       |        | 1 green LED for power on / inhibition and 1 red LED for tripping |
| <b>Connections</b>                    |                       |        |  |
| 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      | 415  |
| Rated impulse withstand voltage Uimp  |                       | kV     | 4  |
| Operating frequency withstand voltage |                       | kV     | 2.5  |
| <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                              |                       |        | Modular DIN 43880 housing  |
| 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      | 121  |
| <b>Dimensions [mm (in)]</b>           |                       |        |  |



**Wiring diagrams**



**Certifications and compliance**

Compliance

- CSA C22.2 n° 14
- IEC/EN 60255-5
- IEC/EN 61000-6-2
- IEC/EN 61000-6-3
- UL 508

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Certificates

cULus

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EAC

ETIM classification

ETIM 8.0

EC001440 -  
Current  
monitoring relay