



# Surge Protection Barrier

## M-LB-4.275TT.D

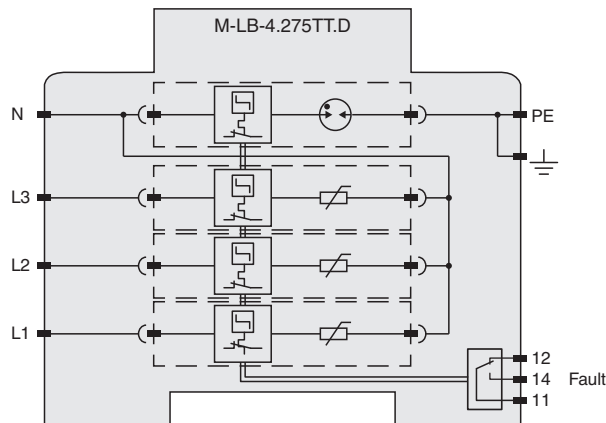
- Surge protection for 4 supply lines
- Type 2 acc. to EN 61643-11
- For TT and TN-S systems (230 V AC/400 V AC)
- Pre-wired unit
- Operating state and fault indication of every protected line
- Fault indication output
- DIN rail mountable



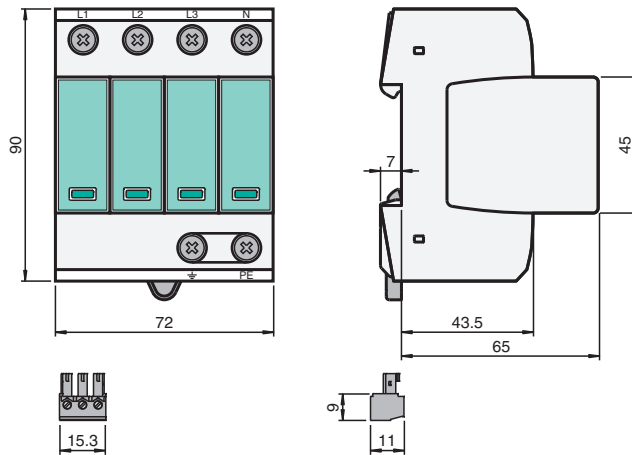
### Function

This device is a modular surge protection barrier (type 2 acc. to EN 61643-11) with error message output (floating changeover contact). The complete device consists of a base module and plug-in protection modules and is ready for installation. Every protection module is locked in the base module and can be changed without tools via release buttons.

### Connection



## Dimensions



## Technical Data

|  |   |
|--|---|
| <b>Search characteristics</b>            |   |
| Network configuration                    | TT  |
| <b>General specifications</b>            |   |
| Device type                              | type 2 acc. to EN 61643-11<br>class II acc. to IEC 61643-1                    |
| Number of protected supply lines         | 4   |
| Suitable components                      | protection module M-LB-1.275.M<br>protection module M-LB-1.NPE.M              |
| <b>Electrical specifications</b>         |   |
| Nominal voltage                          | 230 V AC, 50 ... 60 Hz<br>400 V AC, 50 ... 60 Hz                              |
| Maximum continuous operating voltage     | $U_c$ 275 V AC, 50 ... 60 Hz (L-N)<br>255 V AC, 50 ... 60 Hz (N-PE)           |
| Temporary over-voltage                   | $U_t$ 335 V/5 s (TOV withstand) (L-N)<br>1200 V/200 ms (TOV withstand) (N-PE) |
| Nominal discharge current (8/20 $\mu$ s) | $I_n$ 20 kA   |
| Max. surge current (8/20 $\mu$ s)        | $I_{max}$ 40 kA   |
| Total discharge current (8/20 $\mu$ s)   | $I_{total}$ 12 kA (N-PE)  |
| Voltage protection level                 | $U_p$ max. 1.25 kV (L-N)<br>max. 1 kV at 5 kA (L-N)<br>$\leq$ 1.5 kV (N-PE)   |
| Reaction time                            | $t_A$ max. 25 ns (L-N)<br>max. 100 ns (N-PE)                                  |
| Follow current extinguishing capability  | $I_{fi}$ 100 A <sub>eff</sub> (N-PE)  |
| Short-circuit-proof                      | 50 kA <sub>eff</sub>  |
| Overcurrent protection                   | max. 125 A gG, mains-side   |
| <b>Fault indication output</b>           |   |
| Connection                               | terminals 11, 12, 14  |
| Output                                   | volt-free change-over contact   |
| Switch power                             | AC: 250 V / 0.5 A<br>DC: 250 V/0.1 A; 125 V/0.2 A; 75 V/0.5 A; 24 V/0.5 A     |
| <b>Indicators/settings</b>               |   |
| Display elements                         | status display<br>operating state (green)<br>fault indication (red)           |
| <b>Directive conformity</b>              |   |
| Low voltage                              |   |
| Directive 2014/35/EU                     | EN 61643-11:2012  |
| <b>Conformity</b>                        |   |
| Degree of protection                     | IEC 60529   |
| Shock resistance                         | EN 60068-2  |

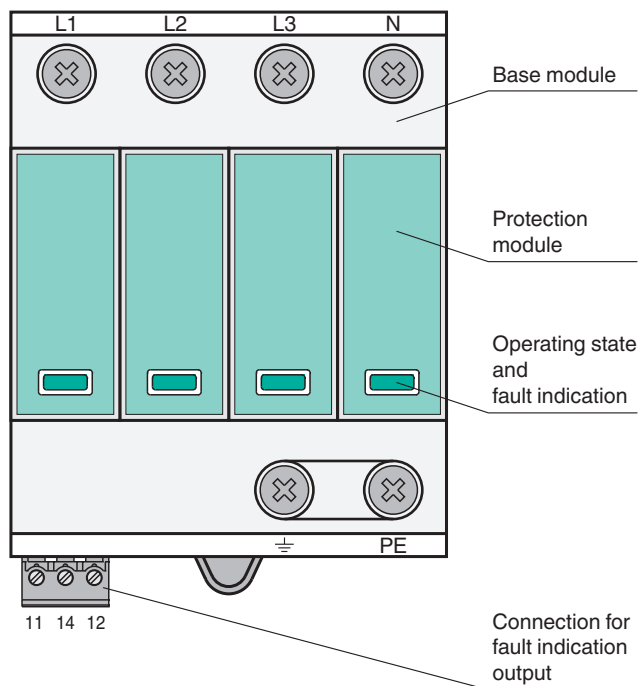
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## Technical Data



|                                  |   |
|----------------------------------|---|
| Vibration resistance             | EN 60068-2  |
| <b>Ambient conditions</b>        |   |
| Ambient temperature              | -40 ... 80 °C (-40 ... 176 °F)  |
| Relative humidity                | 5 ... 95 %  |
| <b>Mechanical specifications</b> |   |
| Degree of protection             | IP20  |
| Core cross section               | - min. 1.5 mm <sup>2</sup> solid/flexible<br>- max. 35 mm <sup>2</sup> stranded/25 mm <sup>2</sup> flexible<br>- max. 1.5 mm <sup>2</sup> solid/flexible (for remote signalling contact)        |
| Material                         |   |
| Housing                          | thermoplastic, color grey , UL 94 V-0   |
| Mass                             | approx. 480 g   |
| Dimensions                       | 72 x 90 x 72 mm (2.8 x 3.6 x 2.8 inch) (W x H x D) , 4 TE acc. to DIN 43880   |
| Mounting                         | on 35 mm DIN mounting rail acc. to EN 60715:2001  |
| <b>General information</b>       |   |
| Supplementary information        | Observe the certificates, declarations of conformity, instruction manuals, and manuals where applicable. For information see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> . |

## Assembly

Front view



## Accessories

|   |                     |  |
|---|---------------------|--|
|  | <b>M-LB-1.NPE.M</b> | Protection Module for Surge Protection Barrier |
|  | <b>M-LB-1.275.M</b> | Protection Module for Surge Protection Barrier |