

Technical data sheet

LightningController - MCF100-NAR-TT

Item number: 5096985



- Combination arrester, type 1+2, for mounting on 40 mm busbars, for TN-S and TT systems
- Protection level  $\leq 1.5$  kV to protect the terminals
  - Lightning protection equipotential bonding according to VDE 0185-305 (IEC 62305)
  - Lightning current arresting capacity up to 100 kA (10/350) 3+NPE
  - Fulfils the requirements of VDE 0100-534 (IEC 60364-5-53)
  - Line follow current quenching up to 50 kA and max. backup fuse up to 315 A gL/gG
  - Spark gaps for use in the pre-meter area according to VDE-AR-N 4100
- Application: Building with lightning protection or outside cable infeed.



| Master data                        |                          |  |
|------------------------------------|--------------------------|--|
| Item number                        | 5096985                  |  |
| Type                               | MCF100-NAR-TT            |  |
| Description 1                      | LightningController Rail |  |
| Description 2                      | 3-pole with NPE          |  |
| Manufacturer                       | OBO                      |  |
| Dimension                          | 255V                     |  |
| Smallest sales unit                | 1                        |  |
| Unit of quantity                   | Piece                    |  |
| Weight                             | 107.2 kg                 |  |
| Weight unit                        | kg/100 pc.               |  |
| CO2 Footprint (GWP) Cradle-to-Gate | 5,7198 kg CO2e / 1 Piece |  |

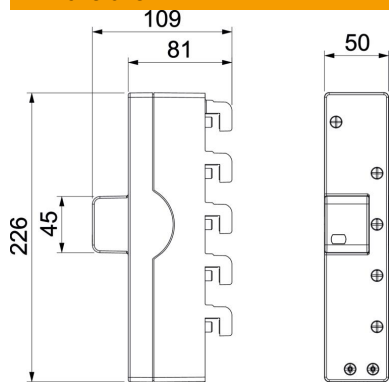
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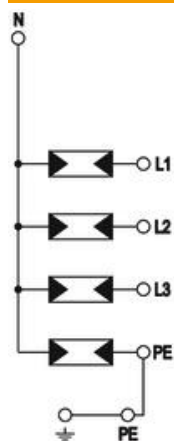


### Dimensions



|        |        |
|--------|--------|
| Length | 226 mm |
| Width  | 50 mm  |
| Height | 109 mm |

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|                                                                     |                    |
|---------------------------------------------------------------------|--------------------|
| Arrester surge current (8/20 $\mu$ s) [total]                       | 100 kA             |
| Connection cross-section (min.)                                     | 10 mm <sup>2</sup> |
| Response time                                                       | <100 ns            |
| Response time [L-N]                                                 | <100 ns            |
| Response time [N-PE]                                                | <100 ns            |
| Version for                                                         | 3+NPE              |
| Pole version                                                        | 3+N/PE             |
| Structural width in division units (division unit, 17.5 mm)         | Miscellaneous      |
| Operating temperature, max.                                         | 80 °C              |
| Operating temperature, min.                                         | -40 °C             |
| Lightning surge current (10/350 $\mu$ s)                            | 25 kA              |
| Lightning surge current (10/350 $\mu$ s) [L-N/PE]                   | 25 kA              |
| Lightning surge current (10/350 $\mu$ s) [N/PE]                     | 100 kA             |
| Lightning surge current (10/350)                                    | 100 kA             |
| Torque                                                              | 35 Lbs             |
| Torque                                                              | 3.5 Nm             |
| Installation location                                               | Interior           |
| Remote signalling                                                   | no                 |
| Follow current quenching capacity (eff) [N-PE]                      | 0.1 kA             |
| Function/defect display                                             | Visual             |
| Housing material surge protection components                        | PA UL 94 V-0       |
| Combined voltage protection level [L-PE]                            | 2.5 kV             |
| Maximum continuous voltage (L-N)                                    | 255 V              |
| Maximum continuous voltage (N-PE)                                   | 255 V              |
| Maximum continuous voltage AC                                       | 255 V              |
| Short-circuit resistance for max. mains-side overcurrent protection | 50 kA eff          |

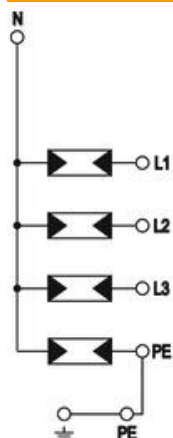
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|                                                              |                    |
|--------------------------------------------------------------|--------------------|
| Conductor cross-section, flexible (fine-wire), max.          | 35 mm <sup>2</sup> |
| Conductor cross-section, flexible (fine-wire), max.          | 2 AWG              |
| Conductor cross-section, flexible (fine-wire), min.          | 7 AWG              |
| Conductor cross-section, flexible (fine-wire), min.          | 10 mm <sup>2</sup> |
| Conductor cross-section, rigid (single-wire/multiwire), max. | 2 AWG              |
| Conductor cross-section, rigid (single-wire/multiwire), max. | 35 mm <sup>2</sup> |
| Conductor cross-section, rigid (single-wire/multiwire), min. | 7 AWG              |
| Conductor cross-section, rigid (single-wire/multiwire), min. | 10 mm <sup>2</sup> |
| Humidity, min.                                               | 5 %                |
| Humidity, max.                                               | 95 %               |
| Max. mains-side overcurrent protection                       | 315 A              |
| Maximum back-up fuse                                         | 315 A              |
| Maximum discharge current (8/20 µs)                          | 50 kA              |
| Maximum discharge current (8/20 µs) [L-N]                    | 50 kA              |
| Maximum discharge current (8/20 µs) [N-PE]                   | 100 kA             |
| Minimum distance                                             | 0 mm               |
| Installation type                                            | Bus bar 40 mm      |
| Nominal discharge current (8/20 µs)                          | 25 kA              |
| Nominal discharge current (8/20 µs) [L-N]                    | 25 kA              |
| Nominal discharge current (8/20 µs) [L-PE]                   | 25 kA              |
| Nominal discharge current (8/20 µs) [N-PE]                   | 100 kA             |
| Nominal frequency                                            | 50 Hz              |
| Nominal voltage AC (50/60 Hz)                                | 230 V              |
| Network form                                                 | TN-S, TT           |
| TN network form                                              | yes                |
| TN-C-S network form                                          | yes                |
| TN-S network form                                            | yes                |
| TT network form                                              | yes                |
| Ports                                                        | One-Port SPD       |
| Protection rating                                            | IP20               |
| Protective conductor current                                 | < 5 µA             |
| Protection level                                             | ≤1,5 kV            |
| Protection level [L-N]                                       | ≤1,5               |
| Protection level [N-PE]                                      | 1.5 kV             |
| Signalling on device                                         | Visual             |
| SPD to EN 61643-11                                           | Type 1+2           |
| SPD to IEC 61643-1                                           | Class I+II         |
| Permitted temperature range, max.                            | 80 °C              |
| Permitted temperature range, min.                            | -40 °C             |

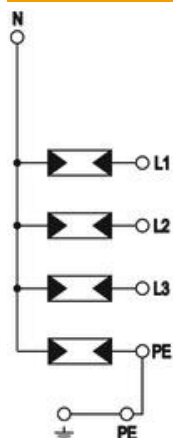
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|                                               |        |
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| TOV voltage [L-N] – fail safe mode – 120 min. | 442 V  |
| TOV voltage [L-N] – withstand mode – 5 s      | 440 V  |
| TOV voltage [N-PE] – withstand mode – 200 ms  | 1200 V |
| Approvals                                     | VDE    |