

# Technical data sheet

## Combination arrester V50, 2-pole + NPE 280 V

Item number: 5093524



Lightning current combination arrester, type 1+2

- For lightning current equipotential bonding to VDE 0185-305 (IEC 62305)
- Lightning current arresting capacity of 12.5 kA (10/350) per pole and up to 50 kA (10/350) in total
- Modular, plug-in arrester with cut-off unit and visual status display
- Locking mechanism with vibration protection and voltage keying
- Plastic to UL 94 V-0
- The remote signalling (FS) variants have a potential-free changeover contact for remote signalling

Application: Lightning current equipotential bonding for buildings of class III and IV.

\* Complete = Plug-in arrester and base



### Master data

|                     |                     |
|---------------------|---------------------|
| Item number         | 5093524             |
| Type                | V50-2+NPE-280       |
| Description 1       | CombiController V50 |
| Description 2       | Two-pole with NPE   |
| Manufacturer        | OBO                 |
| Dimension           | 280V                |
| Smallest sales unit | 1                   |
| Unit of quantity    | Piece               |
| Weight              | 44.3 kg             |
| Weight unit         | kg/100 pc.          |

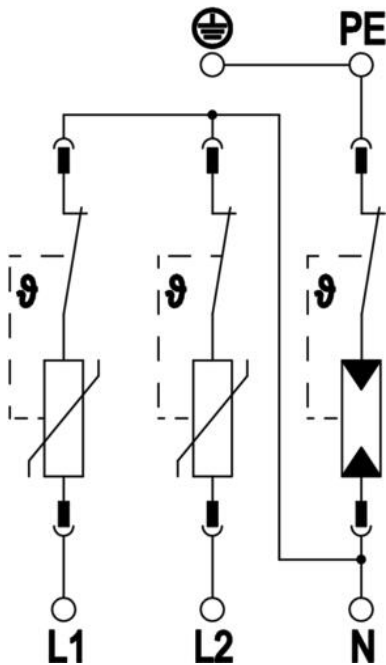
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|   |                     |
|---|---------------------|
| Arrester surge current (8/20 $\mu$ s) [total]                       | 80 kA               |
| Connection cross-section (min.)                                     | 1.5 mm <sup>2</sup> |
| Connection cross-section, FM terminals, max.                        | 16 AWG              |
| Connection cross-section, FM terminals, max.                        | 1.5 mm <sup>2</sup> |
| Connection cross-section, FM terminals, min.                        | 21 AWG              |
| Connection cross-section, FM terminals, min.                        | 0.5 mm <sup>2</sup> |
| Response time   | <25 ns              |
| Response time [L-N]   | 25 ns               |
| Response time [N-PE]  | 100 ns              |
| Blow-out  | no                  |
| Pole version  | 2+N/PE              |
| Structural width in division units (division unit, 17.5 mm)         | 3                   |
| Operating temperature, max.   | 80 °C               |
| Operating temperature, min.   | -40 °C              |
| Lightning surge current (10/350 $\mu$ s)                            | 12.5 kA             |
| Lightning surge current (10/350 $\mu$ s) [L-N/PE]                   | 12.5 kA             |
| Lightning surge current (10/350 $\mu$ s) [N/PE]                     | 50 kA               |
| Lightning surge current (10/350 $\mu$ s)                            | 37.5 kA             |
| Torque  | 35 Lbs              |
| Torque  | 4 Nm                |
| Torque for FM terminal  | 1.7 Lbs             |
| Torque for FM terminal  | 0.2 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)                                    | 280 V               |
| Maximum continuous voltage (N-PE)                                   | 255 V               |
| Maximum continuous voltage AC                                       | 280                 |
| Integrated back-up fuse   | no                  |
| Short-circuit resistance for max. mains-side overcurrent protection | 50 kA eff           |
| 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.                 | 16 AWG              |
| Conductor cross-section, flexible (fine-wire), min.                 | 1.5 mm <sup>2</sup> |

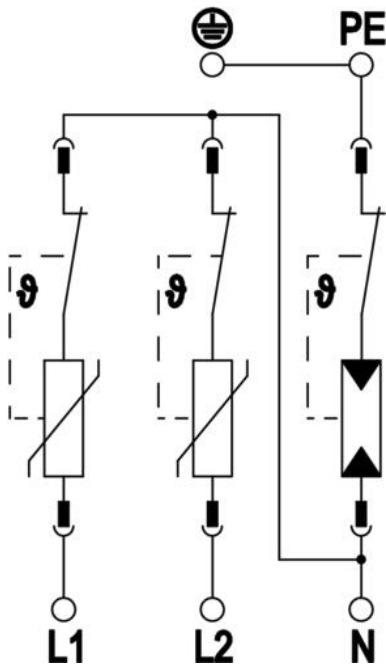
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## Combination arrester V50, 2-pole + NPE 230 V

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|  |                     |
|--|---------------------|
| 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. | 16 AWG              |
| Conductor cross-section, rigid (single-wire/multiwire), min. | 1.5 mm <sup>2</sup> |
| Humidity, max.   | 95 %                |
| Humidity, min.   | 5 %                 |
| Max. mains-side overcurrent protection                       | 160 A gL/gG         |
| Maximum back-up fuse   | 160 A               |
| Maximum discharge current (8/20 µs)                          | 50 kA               |
| Maximum discharge current (8/20 µs) [L-N]                    | 50 kA               |
| Minimum distance   | 1.5 mm              |
| Installation type  | DIN rail 35 mm      |
| Nominal discharge current (8/20 µs)                          | 30 kA               |
| Nominal discharge current (8/20 µs) [L-N]                    | 30 kA               |
| Nominal voltage AC (50/60 Hz)                                | 230 V               |
| Network form   | TN-S, TT            |
| TN network form  | yes                 |
| TN-C network form  | no                  |
| TN-C-S network form  | yes                 |
| TN-S network form  | yes                 |
| TT network form  | yes                 |
| Pole number  | 3                   |
| Ports  | One-Port SPD        |
| Residual voltage [L-N] @ 1 kA                                | 0.7 kV              |
| Residual voltage [L-N] @ 12.5 kA                             | 1 kV                |
| Residual voltage [L-N] @ 5 kA                                | 0.8 kV              |
| Residual voltage [L-N] @ 7 kA                                | 0.9 kV              |
| Protection rating  | IP20                |
| Protective conductor current                                 | < 5 µA              |
| Protection level   | ≤1,3                |
| Protection level [L-N]                                       | ≤1,3                |
| 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          |
| SPD to UL 1449   | Type 4              |
| TOV voltage [L-N] – fail safe mode – 120 min.                | 440 V               |
| TOV voltage [L-N] – withstand mode – 5 s                     | 335 V               |
| TOV voltage [N-PE] – withstand mode – 200 ms                 | 1200 V              |
| Approvals  | VDE KEMA UL ÖVE     |
| Cable type for surge protection devices                      | Power cable AV      |