

# Technical data sheet

Surge arrester V20, 3-pole + NPE and remote signalling,  
280 V

Item number: 5095333



Surge arrester, type 2

- For surge voltage protection equipotential bonding to VDE 0100-443 (IEC 60364-4-44)
- Discharge capacity to 40 kA (8/20) per pole through high-performance varistors
- Modular connectable 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 variants (FS) have a potential-free changeover contact for remote signalling

Application: Equipotential bonding in main and sub-distributions.



## Master data

|                                   |                         |
|-----------------------------------|-------------------------|
| Item number                       | 5095333                 |
| Description 1                     | SurgeController V20     |
| Description 2                     | 3-pole with NPE + RS    |
| Manufacturer                      | OBO                     |
| Dimension                         | 280V                    |
| Smallest sales unit               | 1                       |
| Unit of quantity                  | Piece                   |
| Weight                            | 46.3 kg                 |
| Weight unit                       | kg/100 pc.              |
| CO Footprint (GWP) Cradle-to-Gate | 1,2215 kg COe / 1 Piece |

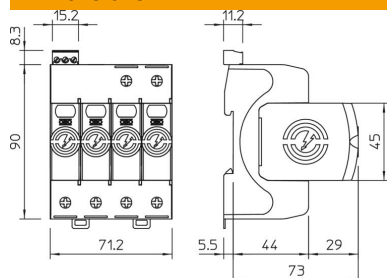
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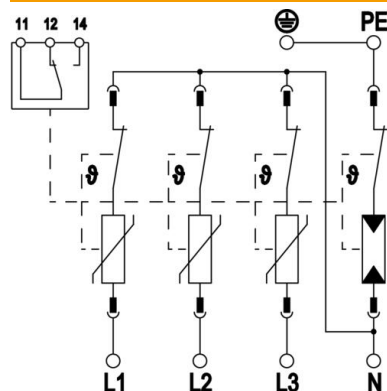
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## Dimensions



## Technical data



|                                                             |                     |
|-------------------------------------------------------------|---------------------|
| Arrester surge current (8/20 $\mu$ s) [total]               | 60 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                                                | 3+N/PE              |
| Structural width in division units (division unit, 17.5 mm) | 4                   |
| Operating temperature, max.                                 | 80 °C               |
| Operating temperature, min.                                 | -40 °C              |
| 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                                           | yes                 |
| FM contacts                                                 | Changeover          |
| 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]                    | 1.5 kV              |
| Maximum continuous voltage (L-N)                            | 280 V               |
| Maximum continuous voltage (N-PE)                           | 255 V               |
| Maximum continuous voltage AC                               | 280 V               |
| Integrated back-up fuse                                     | no                  |
| Short-circuit resistant                                     | yes                 |

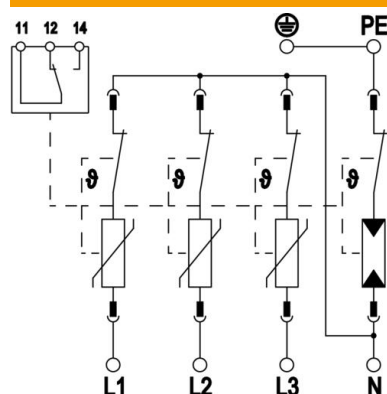
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|                                                                     |                            |
|---------------------------------------------------------------------|----------------------------|
| Short-circuit resistance for max. mains-side 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>        |
| 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)                                 | 40 kA                      |
| Maximum discharge current (8/20 µs) [L-N]                           | 40 kA                      |
| Maximum discharge current (8/20 µs) [N-PE]                          | 60 kA                      |
| Minimum distance                                                    | 1.5 mm                     |
| Installation type                                                   | DIN rail 35 mm             |
| Nominal discharge current (8/20 µs)                                 | 20 kA                      |
| Nominal discharge current (8/20 µs) [L-N]                           | 20 kA                      |
| Nominal discharge current (8/20 µs) [N-PE]                          | 40 kA                      |
| Nominal voltage AC (50/60 Hz)                                       | 230 V                      |
| Network form                                                        | Other                      |
| TN network form                                                     | yes                        |
| TN-C-S network form                                                 | yes                        |
| TN-S network form                                                   | yes                        |
| TT network form                                                     | yes                        |
| Pole number                                                         | 4                          |
| Ports                                                               | One-Port SPD               |
| Test class, type 2                                                  | yes                        |
| Residual voltage [L-N] @ 1 kA                                       | 0.8 kV                     |
| Residual voltage [L-N] @ 5 kA                                       | 1 kV                       |
| Switching power AC                                                  | 230 V; 0,5 A               |
| Switching power DC                                                  | 230 V; 0,1 A / 75 V; 0,5 A |
| Protection rating                                                   | IP20                       |
| Protective conductor current                                        | < 2 µA                     |
| Protection level                                                    | ≤1,3                       |
| Protection level [L-N]                                              | ≤1,3                       |
| Protection level [N-PE]                                             | 1.3 kV                     |
| Signalling on device                                                | Visual                     |

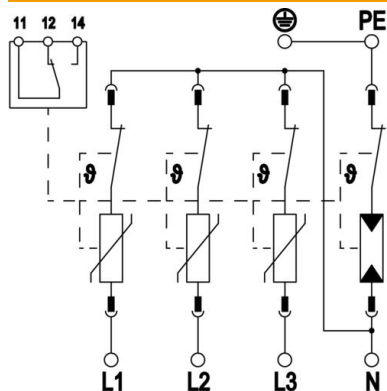
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|                                               |                 |
|-----------------------------------------------|-----------------|
| SPD to EN 61643-11                            | Type 2          |
| SPD to IEC 61643-1                            | Class 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  |