

# Technical data sheet

## Surge arrester V20, 3-pole with remote signalling, 280 V

Item number: 5095283



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                        | 5095283                  |
| Type                               | V20-3+FS-280             |
| Description 1                      | SurgeController V20      |
| Description 2                      | 3-pole with RS           |
| Manufacturer                       | OBO                      |
| Dimension                          | 280V                     |
| Smallest sales unit                | 1                        |
| Unit of quantity                   | Piece                    |
| Weight                             | 36.4 kg                  |
| Weight unit                        | kg/100 pc.               |
| CO2 Footprint (GWP) Cradle-to-Gate | 1,4927 kg CO2e / 1 Piece |

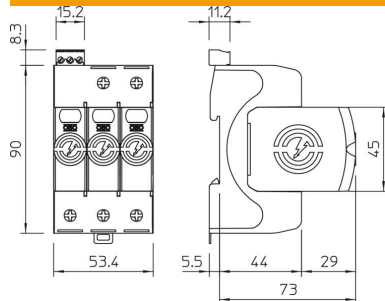
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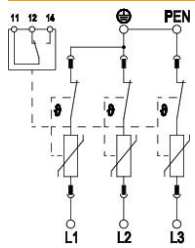
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### Dimensions



### Technical data



|                                                                     |                     |
|---------------------------------------------------------------------|---------------------|
| Arrester surge current (8/20 µs) [total]                            | 120 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               |
| Blow-out                                                            | no                  |
| Pole version                                                        | 3                   |
| Structural width in division units (division unit, 17.5 mm)         | 3                   |
| 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          |
| Function/defect display                                             | Visual              |
| Housing material surge protection components                        | PA UL 94 V-0        |
| 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                 |
| Short-circuit resistance for max. mains-side overcurrent protection | 50 kA eff           |
| Conductor cross-section, flexible (fine-wire), max.                 | 35 mm <sup>2</sup>  |

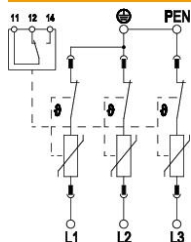
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|                                                              |                            |
|--------------------------------------------------------------|----------------------------|
| Conductor cross-section, flexible (fine-wire), max.          | 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                      |
| 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 voltage AC (50/60 Hz)                                | 230 V                      |
| Network form                                                 | Other                      |
| TN network form                                              | yes                        |
| TN-C network form                                            | yes                        |
| Pole number                                                  | 3                          |
| 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                                 | < 50 µA                    |
| Protection level                                             | ≤1,3                       |
| Protection level [L-N]                                       | ≤1,3                       |
| Signalling on device                                         | Visual                     |
| SPD to EN 61643-11                                           | Type 2                     |
| SPD to IEC 61643-1                                           | Class II                   |
| SPD to UL 1449                                               | Type 4                     |
| Permitted temperature range, max.                            | 80 °C                      |
| Permitted temperature range, min.                            | -40 °C                     |
| TOV voltage [L-N] – fail safe mode – 120 min.                | 440 V                      |
| TOV voltage [L-N] – withstand mode – 5 s                     | 335 V                      |

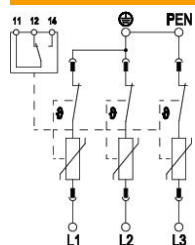
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Approvals

VDE KEMA UL ÖVE