

# Technical data sheet

## V20 surge arrester, leakage current-free, 1-pole + FS



Item number: 5095538



### Surge arrester, type 2

- For surge voltage protection equipotential bonding to VDE 0100-443 (IEC 60364-4-44)
- Discharge capacity to 30 kA (8/20) per pole through a high-performance series connection of varistor and spark gap
- 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         | 5095538                   |
| Description 1       | SurgeController V20       |
| Description 2       | leakage current-free 1+RS |
| Manufacturer        | OBO                       |
| Dimension           | 280V                      |
| Smallest sales unit | 1                         |
| Unit of quantity    | Piece                     |
| Weight              | 18.6 kg                   |
| Weight unit         | kg/100 pc.                |

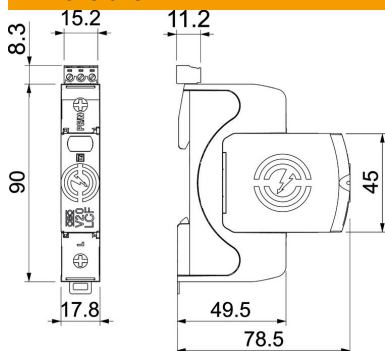
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### Dimensions



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|   |                     |
|---|---------------------|
| Arrester surge current (8/20 $\mu$ s) [total]                       | 30 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 [L-N]   | 100 ns              |
| Response time [N-PE]  | 100 ns              |
| Blow-out  | no                  |
| Pole version  | 1                   |
| 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 AC                                       | 280                 |
| 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>  |
| Conductor cross-section, flexible (fine-wire), max.                 | 2 AWG               |

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|  |                            |
|--|----------------------------|
| 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)                          | 30 kA                      |
| Maximum discharge current (8/20 µs) [L-N]                    | 30 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                      |
| DC network form  | no                         |
| IT network form  | no                         |
| Other network form   | no                         |
| TN network form  | yes                        |
| TN-C network form  | yes                        |
| TN-C-S network form  | yes                        |
| TN-S network form  | yes                        |
| TT network form  | no                         |
| 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                                 | < 500 µA                   |
| Protection level   | ≤1,5                       |
| Protection level [L-N]                                       | ≤1,5                       |
| Signalling on device   | Visual                     |
| SPD to EN 61643-11   | Type 2+3                   |
| SPD to IEC 61643-1   | Class II+III               |
| SPD to UL 1449   | Type 4                     |

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|   |                 |
|---|-----------------|
| 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  |