

## VPU series

### VPU I 3+1 280V/12,5KA

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 14-0  
 Fax: +49 5231 14-292083  
 www.weidmueller.com



#### Type I/II lightning arrester for use downstream/ upstream of the electrical meter

- No-leakage-current version suitable for use upstream of the electrical meter
- Suitable for protection classes III and IV (LPLIII/IV)
- Can also be used as Type II surge protection
- Tested according to IEC 61643-11 for Type I and II surge protection
- Pluggable arrester

#### General ordering data

|            |   |
|------------|---|
| Type       | VPU I 3+1 280V/12,5KA   |
| Order No.  | <a href="#">1352230000</a>  |
| Version    | Surge voltage arrester, Low voltage, without telecomm. contact, TN-C-S, TN-S, TT, IT with N |
| GTIN (EAN) | 4050118158038   |
| Qty.       | 1 pc(s).  |

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## Technical data

### Dimensions and weights

|                             |         |                 |            |
|-----------------------------|---------|-----------------|------------|
| Width                       | 71.2 mm | Width (inches)  | 2.803 inch |
| Height                      | 94 mm   | Height (inches) | 3.701 inch |
| Depth                       | 69 mm   | Depth (inches)  | 2.717 inch |
| Mounting dimension - height | 75 mm   | Net weight      | 622 g      |

### Temperatures

|                             |                       |                                   |                           |
|-----------------------------|-----------------------|-----------------------------------|---------------------------|
| Humidity                    | 5 - 95% rel. humidity | Humidity at operating temperature | 5...95 %, no condensation |
| Operating temperature, max. | 70 °C                 | Operating temperature, min.       | -40 °C                    |
| Storage temperature, max.   | 80 °C                 | Storage temperature, min.         | -40 °C                    |
| Operating temperature       | -40 °C...70 °C        | Storage temperature               | -40 °C...80 °C            |

### General data

|                           |   |                   |  |
|---------------------------|---|-------------------|--|
| Colour                    | black, orange, blue                               | Design            | Installation housing; 4TE, Insta IP 20 |
| Optical function display  | green = OK; red = arrester is defective - replace | Protection degree | IP20                                   |
| Rail                      | TS 35   | Segment           | Power distribution                     |
| UL 94 flammability rating | V-0   | Version           | without telecomm. contact              |

### Insulation coordination acc. to EN 50178

|                    |   |                        |    |
|--------------------|---|------------------------|----|
| Pollution severity | 2 | Surge voltage category | IV |
|--------------------|---|------------------------|----|

### Rated data IEC / EN

|  |                                    |   |   |
|--|------------------------------------|---|---|
| Discharge current $I_{max}$ (8/20 $\mu$ s) wire-PE       | 50 kA                              | Discharge current $I_{max}$ (8/20 $\mu$ s) N-PE           | 100 kA                                  |
| Discharge current $I_n$ (8/20 $\mu$ s) N-PE              | 50 kA                              | Discharge current $I_n$ (8/20 $\mu$ s) wire-PE            | 20 kA                                   |
| Energy coordination ( $\leq 10$ m)                       | Type I, Type II, Type III          | Follow-on current extinguishing capability $I_{fi}$       | Not available due for technical reasons |
| Frequency range, max.                                    | 60 Hz                              | Frequency range, min.                                     | 50 Hz                                   |
| Fuse   | 250 A gL (if back up fuse > 250 A) | Leakage current at $U_n$                                  | 100 $\mu$ A                             |
| Lightning test current $I_{imp}$ (10/350 $\mu$ s) (L-PE) | 12.5 kA                            | Lightning test current, $I_{imp}$ (10/350 $\mu$ s) (N-PE) | 50 kA                                   |
| Low voltage network                                      | TN-C-S, TN-S, TT, IT with N        | Max. continuous voltage, $U_c$ (AC)                       | 280 V                                   |
| Max. continuous voltage, $U_c$ (N-PE)                    | 260 V                              | Number of poles   | 4                                       |
| Protection level $U_p$ at $I_N$ (L/N-PE)                 | $\leq 1.4$ kV                      | Protection level $U_p$ at $I_N$ (N-PE)                    | $\leq 1.5$ kV                           |
| Rated voltage (AC)                                       | 230 V                              | Requirements category acc. to IEC 61643-11                | Type I, Type II                         |
| Requirements class, acc. to EN 61643-11                  | T1, T2                             | Response time   | $\leq 25$ ns, $\leq 100$ ns             |
| Short-circuit current rating $I_{SCCR}$                  | 25 kA                              | Signalling contact  | No                                      |
| Standards  | IEC61643-11, EN61643-11            | Temporary surge voltage (over-voltage) - TOV              | 438 V                                   |
| Voltage type   | AC                                 |   |   |

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|  |                    |  |                     |
|--|--------------------|--|---------------------|
| Type of connection   | Screw connection   | Stripping length, rated connection                         | 15 mm               |
| Tightening torque, min.                                    | 2 Nm               | Tightening torque, max.                                    | 3 Nm                |
| Clamping range, rated connection                           | 16 mm <sup>2</sup> | Clamping range, min.                                       | 4 mm <sup>2</sup>   |
| Clamping range, max.                                       | 35 mm <sup>2</sup> | Wire cross-section, solid, min.                            | 2.5 mm <sup>2</sup> |
| Wire cross-section, solid, max.                            | 16 mm <sup>2</sup> | Wire connection cross-section, finely stranded, min.       | 2.5 mm <sup>2</sup> |
| Wire connection cross section, finely stranded, max.       | 25 mm <sup>2</sup> | Conductor cross-section, flexible, AEH (DIN 46228-1), min. | 2.5 mm <sup>2</sup> |
| Conductor cross-section, flexible, AEH (DIN 46228-1), max. | 50 mm <sup>2</sup> | Connection cross-section, stranded, min.                   | 2.5 mm <sup>2</sup> |
| Connection cross-section, stranded, max.                   | 50 mm <sup>2</sup> |  |                     |

**Classifications**

|             |             |            |             |
|-------------|-------------|------------|-------------|
| ETIM 6.0    | EC000941    | ETIM 7.0   | EC000941    |
| eClass 9.0  | 27-13-08-05 | eClass 9.1 | 27-13-08-05 |
| eClass 10.0 | 27-13-08-05 | UNSPSC     | 30-21-19-22 |

**Approvals**

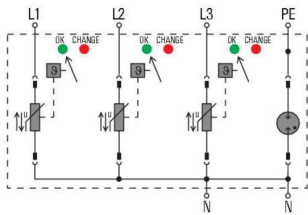
Approvals



ROHS Conform

**Downloads**

|   |   |
|---|---|
| Approval/Certificate/Document of Conformity | <a href="#">EAC VPU SERIES</a><br><a href="#">CE PAPER</a><br><a href="#">Declaration of Conformity</a> |
| Brochure/Catalogue                          | <a href="#">CAT 4.4 ELECTR 16/17 EN</a>   |
| Engineering Data                            | <a href="#">EPLAN, WSCAD</a>  |
| Engineering Data                            | <a href="#">STEP</a>  |
| User Documentation                          | <a href="#">Instruction sheet</a>   |

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Schematic circuit diagram