

**VPU series**  
**VPU I 3+1 R 280V/12,5KA****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 16

D-32758 Detmold

Germany

Fon: +49 5231 14-0

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www.weidmueller.com

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

- Version suitable for use upstream of the electrical meter
- Suitable for protective zones III and IV (LPL III/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 R 280V/12,5KA                                                               |
| Order No.  | <a href="#">1352240000</a>                                                            |
| Version    | Surge voltage arrester, Low voltage, with remote contact, TN-C-S, TN-S, TT, IT with N |
| GTIN (EAN) | 4050118158021                                                                         |
| Qty.       | 1 pc(s).                                                                              |

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**Technical data**
**Dimensions and weights**

|                             |         |                 |            |
|-----------------------------|---------|-----------------|------------|
| Width                       | 71.2 mm | Width (inches)  | 2.803 inch |
| Height                      | 106 mm  | Height (inches) | 4.173 inch |
| Depth                       | 69 mm   | Depth (inches)  | 2.717 inch |
| Mounting dimension - height | 75 mm   | Net weight      | 632 g      |

**Temperatures**

|                             |                       |                             |                |
|-----------------------------|-----------------------|-----------------------------|----------------|
| Humidity                    | 5 - 95% rel. humidity | 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        |                             |                |

**Connection data, remote alert**

|                                                    |                      |                                                    |                     |
|----------------------------------------------------|----------------------|----------------------------------------------------|---------------------|
| Connection type                                    | PUSH IN              | Stripping length                                   | 8 mm                |
| Cross-section for connected wire, solid core, min. | 0.14 mm <sup>2</sup> | Cross-section for connected wire, solid core, max. | 1.5 mm <sup>2</sup> |

**General data**

|                           |                     |                          |                                                   |
|---------------------------|---------------------|--------------------------|---------------------------------------------------|
| Colour                    | Black, Orange, Blue | Design                   | Installation housing; 4TE, Insta IP 20            |
| Mounting rail             | TS 35               | Optical function display | green = OK; red = arrester is defective - replace |
| Protection degree         | IP20                | Segment                  | Power distribution                                |
| UL 94 flammability rating | V-0                 | Version                  | with remote contact                               |

**Insulation coordination acc. to EN 50178**

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

**Rated data IEC / EN**

|                                                             |                                         |                                                            |                             |
|-------------------------------------------------------------|-----------------------------------------|------------------------------------------------------------|-----------------------------|
| Discharge current $I_{\max}$ (8/20µs) wire-PE               | 50 kA                                   | Discharge current $I_{\max}$ (8/20µs) N-PE                 | 100 kA                      |
| Discharge current $I_n$ (8/20µs) N-PE                       | 50 kA                                   | Discharge current $I_n$ (8/20µs) wire-PE                   | 20 kA                       |
| 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 mains > 250 A) |
| Leakage current at $U_n$                                    | 100 µA                                  | Lightning test current $I_{\text{imp}}$ (10/350 µs) (L-PE) | 12.5 kA                     |
| Lightning test current, $I_{\text{imp}}$ (10/350 µs) (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                       |
| No. of poles                                                | 4                                       | Protection level $U_p$ at $I_N$ (L/N-PE)                   | ≤ 1.4 kV                    |
| Protection level $U_p$ at $I_N$ (N-PE)                      | ≤ 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                                               | ≤ 25 ns, ≤ 100 ns                       | Short-circuit current rating $I_{\text{SCCR}}$             | 25 kA                       |
| Signalling contact                                          | 250 V 1A 1CO                            | Temporary surge voltage (over-voltage) - TOV               | 438 V                       |
| Voltage type                                                | AC                                      |                                                            |                             |

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## Technical data

### Connection data

|                                                            |                     |                                                            |                    |
|------------------------------------------------------------|---------------------|------------------------------------------------------------|--------------------|
| 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>  |
| 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 3.0   | EC000381    | ETIM 5.0   | EC000510    |
| ETIM 6.0   | EC000941    | UNSPSC     | 30-21-19-22 |
| eClass 5.1 | 27-14-02-01 | eClass 6.2 | 27-13-08-02 |
| eClass 7.1 | 27-14-02-01 | eClass 8.1 | 27-14-02-01 |
| eClass 9.0 | 27-14-02-01 | eClass 9.1 | 27-13-08-05 |

### Product information

|                              |                                                                                                            |
|------------------------------|------------------------------------------------------------------------------------------------------------|
| Instructions for accessories | Pluggable spare arrester L-N VPU I O 280 V/12.5 kA-1352120000,<br>N-PE VPU I O N-PE 260 V/50 kA-1351930000 |
|------------------------------|------------------------------------------------------------------------------------------------------------|

### Approvals

Approvals



|      |         |
|------|---------|
| ROHS | Conform |
|------|---------|

### Downloads

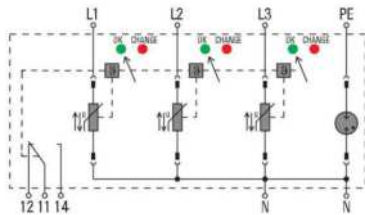
|                                             |                                         |
|---------------------------------------------|-----------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">CE PAPER</a>                |
| Brochure/Catalogue                          | <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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## Drawings

### Electric symbol



Schematic circuit diagram