

**VPU series**  
**VPU PV I+II 3 1500****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 16

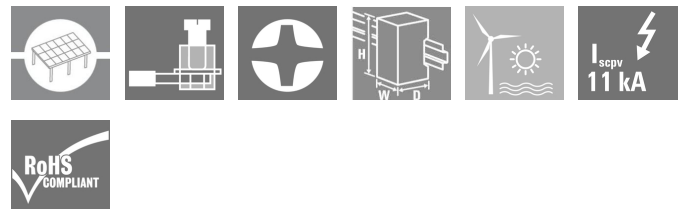
D-32758 Detmold

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Fon: +49 5231 14-0

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**Product image****Type II surge voltage arrester for use in photovoltaic applications**

- Pluggable arrester
- Suitable for protecting DC systems
- High energy absorption with short response time
- Tested in accordance with EN 50539-11
- Suitable for use in accordance with IEC 60364-7-712 / EN 50539-12
- Coded voltage level
- Installation in distribution board
- Thermal protection function

**General ordering data**

|            |                                                                      |
|------------|----------------------------------------------------------------------|
| Type       | VPU PV I+II 3 1500                                                   |
| Order No.  | <a href="#">2530580000</a>                                           |
| Version    | Surge voltage arrester, Low voltage, 1500 V, 30 kA, $I_{imp}$ : 5 kA |
| GTIN (EAN) | 4050118540499                                                        |
| Qty.       | 1 pc(s).                                                             |

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

|                             |       |                 |            |
|-----------------------------|-------|-----------------|------------|
| Width                       | 54 mm | Width (inches)  | 2.126 inch |
| Height                      | 96 mm | Height (inches) | 3.78 inch  |
| Depth                       | 86 mm | Depth (inches)  | 3.386 inch |
| Mounting dimension - height | 85 mm | Net weight      | 470 g      |

**Temperatures**

|                             |                       |                             |                |
|-----------------------------|-----------------------|-----------------------------|----------------|
| Humidity                    | 5 - 95% rel. humidity | Operating temperature, max. | 70 °C          |
| Operating temperature, min. | -40 °C                | Storage temperature, max.   | 85 °C          |
| Storage temperature, min.   | -40 °C                | Operating temperature       | -40 °C...70 °C |
| Storage temperature         | -40 °C...85 °C        |                             |                |

**Probability of failure**

|      |          |
|------|----------|
| MTBF | 45 Years |
|------|----------|

**Rated data UL**

|                      |         |                                         |              |
|----------------------|---------|-----------------------------------------|--------------|
| Voltage type         | DC      | VPR ( DC+/DC-)                          | 4,000 V      |
| VPR ( DC-/G)         | 4,000 V | Certificate No. (cURus)                 | E354261      |
| Certificate No. (UR) | E354261 | Ambient temperature (operational), max. | 85 °C        |
| Rated Voltage $U_N$  | 1,500 V | SCCR                                    | 65 kA        |
| $I_n$                | 20 kA   | Category                                | SPD TYPE 1CA |
| Rated current (UL)   | 1,500 V |                                         |              |

**General data**

|                          |                                                   |                           |                                        |
|--------------------------|---------------------------------------------------|---------------------------|----------------------------------------|
| Colour                   | black, orange                                     | Design                    | Installation housing; 3TE, Insta IP 20 |
| Optical function display | green = OK; red = arrester is defective - replace | Protection degree         | IP20                                   |
| Rail                     | TS 35                                             | UL 94 flammability rating | V-0                                    |

**Insulation coordination acc. to EN 50178**

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

**Photovoltaic technical data**

|                                                      |                                         |                                                     |                                        |
|------------------------------------------------------|-----------------------------------------|-----------------------------------------------------|----------------------------------------|
| Discharge current $I_n$ (8/20 $\mu$ s)               | 20 kA                                   | Discharge current, max. (8/20 $\mu$ s)              | 30 kA                                  |
| Lightning test current $I_{imp}$ (10/350 $\mu$ s)    | 5 kA                                    | Operating height in the grounded PV system          | $\leq 2000$ m                          |
| Operating height in ungrounded PV system             | $< 4,000$ m, see operating instructions | PV system voltage, max. $U_{cpv}$                   | 1,500 V                                |
| Protection level $U_p$ mode (+/-, -/PE, +/- PE)      | $\leq 5,0$ kV                           | Requirements class                                  | Type I/II                              |
| Short-circuit current $I_{SCPv}$                     | 11,000 A                                | Standards                                           | EN 50539-11:2013+A1:2014, UL 1449 Ed.4 |
| Standby power consumption $P_C$                      | $< 0.2$ W                               | Total discharge current $I_{total}$ ( 8/20 $\mu$ s) | 40 kA                                  |
| Total discharge current $I_{total}$ (10/350 $\mu$ s) | 10 kA                                   |                                                     |                                        |

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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.                                    | 4 Nm                |
| Clamping range, rated connection                           | 16 mm <sup>2</sup> | Clamping range, min.                                       | 1.5 mm <sup>2</sup> |
| Clamping range, max.                                       | 35 mm <sup>2</sup> | Wire cross-section, solid, min.                            | 1.5 mm <sup>2</sup> |
| Wire cross-section, solid, max.                            | 16 mm <sup>2</sup> | Wire connection cross-section, finely stranded, min.       | 1.5 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. | 1.5 mm <sup>2</sup> |
| Conductor cross-section, flexible, AEH (DIN 46228-1), max. | 25 mm <sup>2</sup> | Connection cross-section, stranded, min.                   | 1.5 mm <sup>2</sup> |
| Connection cross-section, stranded, max.                   | 35 mm <sup>2</sup> |                                                            |                     |

### Classifications

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

### Approvals

Approvals



ROHS

Conform

### Downloads

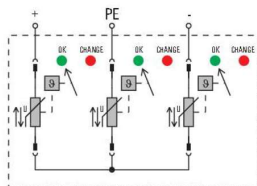
|                                             |                                       |
|---------------------------------------------|---------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">CE_VPU_PV</a>             |
| Engineering Data                            | <a href="#">STEP</a>                  |
| User Documentation                          | <a href="#">Operating instruction</a> |

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## Drawings

### Electric symbol



Circuit diagram