

**VPU III R 120V/6KV AC/DC****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)

Similar to illustration

**Type III surge protection**

- Compact Type III arrester for AC/DC protection acc. to IEC 61643-11:2012
- Suitable for protecting terminals
- Installed in the vicinity of the equipment to be protected
- Can be used as single-port arrester when nominal current is greater than 16 A

**General ordering data**

|            |                                                                                                      |
|------------|------------------------------------------------------------------------------------------------------|
| Version    | Surge voltage arrester, Low voltage, with remote contact, Single-phase, $U_P(L/N-PE) < 700\text{ V}$ |
| Order No.  | <a href="#">1351630000</a>                                                                           |
| Type       | VPU III R 120V/6KV AC/DC                                                                             |
| GTIN (EAN) | 4050118158519                                                                                        |
| Qty.       | 1 pc(s).                                                                                             |

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## Technical data

## Dimensions and weights

|            |         |                 |            |
|------------|---------|-----------------|------------|
| Depth      | 71.5 mm | Depth (inches)  | 2.815 inch |
| Height     | 102 mm  | Height (inches) | 4.016 inch |
| Width      | 18 mm   | Width (inches)  | 0.709 inch |
| Net weight | 85 g    |                 |            |

## Temperatures

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

## Connection data, remote alert

|                                                    |                     |                                                    |                     |
|----------------------------------------------------|---------------------|----------------------------------------------------|---------------------|
| Connection type                                    | Screw connection    | Cross-section for connected wire, solid core, max. | 1.5 mm <sup>2</sup> |
| Cross-section for connected wire, solid core, min. | 0.2 mm <sup>2</sup> | Max. torque                                        | 0.5 Nm              |
| Stripping length                                   | 5 mm                |                                                    |                     |

## General data

|                           |                                                          |                   |                                        |
|---------------------------|----------------------------------------------------------|-------------------|----------------------------------------|
| Colour                    | orange                                                   | Design            | Installation housing; 1TE, Insta IP 20 |
| Optical function display  | Green LED = OK, Red LED = arrester is defective, replace | Protection degree | IP20                                   |
| Rail                      | TS 35                                                    | 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 | II |
|--------------------|---|------------------------|----|

## Rated data IEC / EN

|                                                            |                   |                                                |                         |
|------------------------------------------------------------|-------------------|------------------------------------------------|-------------------------|
| Combined pulse U <sub>OC</sub>                             | 6 kV              | Discharge current, max. (8/20 µs)              | 3 kA                    |
| Energy coordination (≤10 m)                                | Type II, Type III | Fuse                                           | 16 A                    |
| Leakage current at U <sub>n</sub>                          | 30 µA             | Low voltage network                            | Single-phase            |
| Mains frequency at 250 V <sub>max</sub>                    | 50...60Hz         | Max. continuous voltage, U <sub>c</sub> (AC)   | 150 V                   |
| Max. continuous voltage, U <sub>c</sub> (DC)               | 212 V             | Number of poles                                | 1                       |
| PE conductor current I <sub>PE</sub>                       | 30 µA             | Protection level U <sub>p</sub> (typ.)         | < 700 V                 |
| Protection level U <sub>p</sub> at I <sub>N</sub> (L/N-PE) | ≤ 1.75 kV         | Rated current I <sub>N</sub>                   | 16 A                    |
| Rated voltage (AC)                                         | 120 V             | Rated voltage (DC)                             | 150 V                   |
| Requirements category acc. to IEC 61643-11                 | Type III          | Requirements class, acc. to EN 61643-11        | T3                      |
| Response time                                              | ≤ 100 ns          | Short-circuit current rating I <sub>SCCR</sub> | 1.5 kA                  |
| Signalling contact                                         | 250 V 10 A 1 NC   | Standards                                      | IEC61643-11, EN61643-11 |
| Temporary surge voltage (over-voltage) - TOV               | 229 V             | Voltage type                                   | AC/DC                   |

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## Connection data

|                                                            |                     |                                                            |                      |
|------------------------------------------------------------|---------------------|------------------------------------------------------------|----------------------|
| Type of connection                                         | Screw connection    | Stripping length, rated connection                         | 7 mm                 |
| Tightening torque, min.                                    | 0.4 Nm              | Tightening torque, max.                                    | 0.5 Nm               |
| Clamping range, rated connection                           | 2.5 mm <sup>2</sup> | Clamping range, min.                                       | 0.5 mm <sup>2</sup>  |
| Clamping range, max.                                       | 2.5 mm <sup>2</sup> | Wire cross-section, solid, min.                            | 0.13 mm <sup>2</sup> |
| Wire cross-section, solid, max.                            | 2.5 mm <sup>2</sup> | Wire connection cross section, finely stranded, min.       | 0.5 mm <sup>2</sup>  |
| Wire connection cross section, finely stranded, max.       | 2.5 mm <sup>2</sup> | Conductor cross-section, flexible, AEH (DIN 46228-1), min. | 0.5 mm <sup>2</sup>  |
| Conductor cross-section, flexible, AEH (DIN 46228-1), max. | 2.5 mm <sup>2</sup> | Connection cross-section, stranded, min.                   | 0.5 mm <sup>2</sup>  |
| Connection cross-section, stranded, max.                   | 2.5 mm <sup>2</sup> |                                                            |                      |

## Guarantee

|               |         |
|---------------|---------|
| Time interval | 5 years |
|---------------|---------|

## Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC000941    | ETIM 7.0    | EC000941    |
| ETIM 8.0    | EC000941    | ECLASS 9.0  | 27-13-08-05 |
| ECLASS 9.1  | 27-13-08-05 | ECLASS 10.0 | 27-13-08-05 |
| ECLASS 11.0 | 27-13-08-05 |             |             |

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## Technical data

## Tender specification sheets

## Long specification

Surge protection according to the requirements of Class III in accordance with IEC 61643-11, EN61643-11:2013. The arrester serves as surge protection and is used in applications in accordance with IEC 61643-12. The arrester is installed in the vicinity of the equipment that needs protection in a standard installation/distributor housing. The VPU III R 120 V is earthed between the phase and the neutral conductor. With thermal separation device on the varistor. If there is no longer any protection, the colour of the LEDs changes from green to red. The functional state is also displayed by a voltage-free signalling contact (NC contact). Rated voltage: 120 V AC/DC In/max (8/20 µs): 3 kA protection level < 1.75 kV load current II: 16 A telecommunication output: contact NC: 250 V/0.5 A 48 VDC/0.1 A Type: Weidmüller VPU III R 120 V Order No. 1351630000 or equivalent

## Short specification

Class III arrester with Uoc: 6 kV suitable for 120 V AC/DC mains systems. Protection level < 1.75 kV. With remote alert Type: Weidmüller VPU III R 120 V/6 kV Order no. 1351630000 or equivalent

## Approvals

## Approvals



ROHS

Conform

## Downloads

|                                             |                                                                                                           |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">EAC VPU SERIES</a><br><a href="#">EU_Konformitätserklärung / EU_Declaration_of_Conformity</a> |
| Engineering Data                            | <a href="#">STEP</a>                                                                                      |
| Engineering Data                            | <a href="#">EPLAN, WSCAD</a>                                                                              |
| Tender specification                        | <a href="#">Ausschreibungstext DE</a><br><a href="#">Tenderspecification EN</a>                           |
| User Documentation                          | <a href="#">Beipackzettel / Instruction sheet</a>                                                         |
| Catalogues                                  | <a href="#">Catalogues in PDF-format</a>                                                                  |
| Brochures                                   |                                                                                                           |

## VPU III R 120V/6KV AC/DC

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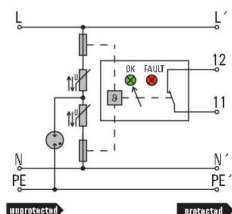
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# Drawings

## Electric symbol



Schematic circuit diagram