

**VPU ZPA S I 3+1 R 300/12,5****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

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

Lightning arresters for 40 mm rail systems

- Simple and safe to use and install
- Complete and permanent status control
- Leakage current free surge protection
- Application-specific application classes with 7.5 kA and 12.5 kA discharge current

**General ordering data**

|            |                                                                                                      |
|------------|------------------------------------------------------------------------------------------------------|
| Version    | Surge voltage arrester, Low voltage, Leakage-current-free, TN-C-S, TN-S, TT, IT with N, IT without N |
| Order No.  | <a href="#">2830910000</a>                                                                           |
| Type       | VPU ZPA S I 3+1 R 300/12,5                                                                           |
| GTIN (EAN) | 4064675390091                                                                                        |
| Qty.       | 1 items                                                                                              |

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## Technical data

## Approvals

Approvals



ROHS Conform

## Dimensions and weights

|            |        |                 |             |
|------------|--------|-----------------|-------------|
| Depth      | 236 mm | Depth (inches)  | 9.2913 inch |
| Height     | 236 mm | Height (inches) | 9.2913 inch |
| Width      | 36 mm  | Width (inches)  | 1.4173 inch |
| Net weight | 638 g  |                 |             |

## Temperatures

|                       |                |                     |                       |
|-----------------------|----------------|---------------------|-----------------------|
| Storage temperature   | -40 °C...85 °C | Ambient temperature | ...85 °C              |
| Operating temperature | -40 °C...85 °C | Humidity            | 5 - 95% rel. humidity |

## Environmental Product Compliance

|                        |                             |
|------------------------|-----------------------------|
| RoHS Compliance Status | Compliant without exemption |
| REACH SVHC             | No SVHC above 0.1 wt%       |

## Connection data, remote alert

|                                                                   |                      |                 |         |
|-------------------------------------------------------------------|----------------------|-----------------|---------|
| Cross-section for connected wire, solid core (remote alert), min. | 0.25 mm <sup>2</sup> | Connection type | PUSH IN |
| Cross-section for connected wire, solid core (remote alert), max. | 1.5 mm <sup>2</sup>  | Max. torque     | 0.4 Nm  |

## General data

|                          |                                                   |                    |                    |
|--------------------------|---------------------------------------------------|--------------------|--------------------|
| Optical function display | green = OK; red = arrester is defective - replace | Segment            | Power distribution |
| Version                  | Leakage-current-free                              | Colour             | grey               |
| Protection degree        | IP20                                              | Mounting rail      | Busbar             |
| auxiliary contact        | No                                                | Operating altitude | ≤ 4000 m           |

## Rated data IEC / EN

|                                                 |                           |                                                  |                                           |
|-------------------------------------------------|---------------------------|--------------------------------------------------|-------------------------------------------|
| Number of poles                                 | 4                         | Combined pulse UOC                               | 6 kV                                      |
| Leakage current (nominal voltage)               | 5 µA                      | Signalling contact                               | 250 V 1A 1CO                              |
| Rated voltage (AC)                              | 240 V                     | Low voltage network                              | TN-C-S, TN-S, TT, IT with N, IT without N |
| Voltage type                                    | AC                        | Fuse protection                                  | No Fuse necessary ≤160 A gG               |
| Response time / fallback time                   | ≤ 100 ns                  | Frequency range, max.                            | 60 Hz                                     |
| Frequency range, min.                           | 50 Hz                     | Lightning test current limp (10/350 µs) (L-PE)   | 12.5 kA                                   |
| Lightning test current, limp (10/350 µs) (N-PE) | 50 kA                     | Requirements class, acc. to EN 61643-11          | T1, T2, T3                                |
| Requirements category acc. to IEC 61643-11      | Type I, Type II, Type III | Continuous voltage (N / PE), max.                | 305 V                                     |
| Mains voltage                                   | 230 V / 400 V             | Discharge current I <sub>max</sub> (8/20µs) N-PE | 100 kA                                    |
| Discharge current I <sub>n</sub> (8/20µs) N-PE  | 80 kA                     | Energy coordination (≤10 m)                      | Type I, Type II, Type III                 |

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| SPD type                           | T1, T2, T3 | Protection level Up at IN (L/N-PE) | ≤ 1.5 kV |
| Short-circuit current rating ISCCR | 25 kA      | Integrated back-up fuse            | No       |
| PE conductor current               | 5 µA       |                                    |          |

## Connection data

|                                                                             |                    |                                                                             |                    |
|-----------------------------------------------------------------------------|--------------------|-----------------------------------------------------------------------------|--------------------|
| Stripping length                                                            | 18 mm              | Wire connection method                                                      | Screw connection   |
| Type of connection                                                          | Screw connection   | Tightening torque, max.                                                     | 4.5 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.                                             | 16 mm <sup>2</sup> |
| Wire cross-section, solid, max.                                             | 35 mm <sup>2</sup> | Wire connection cross-section, finely stranded, max.                        | 25 mm <sup>2</sup> |
| Conductor cross-section, flexible with wire end ferrule (DIN 46228-1), min. | 16 mm <sup>2</sup> | Conductor cross-section, flexible with wire end ferrule (DIN 46228-1), max. | 25 mm <sup>2</sup> |
| Connection cross-section, stranded, min. 16 mm <sup>2</sup>                 |                    | Connection cross-section, stranded, max.                                    | 35 mm <sup>2</sup> |

## Electrical data

|              |    |
|--------------|----|
| Voltage type | AC |
|--------------|----|

## General data

|                 |      |                   |      |
|-----------------|------|-------------------|------|
| Number of poles | 4    | Protection degree | IP20 |
| Colour          | grey |                   |      |

## Guarantee

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

## Important note

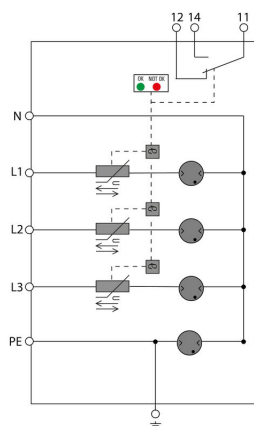
|                     |                                                                                                                                                                                           |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product information | Only applicable to IT power systems where the earth on the distribution transformer is interconnected with the earth on the consumer side (RE=RA in Figure 44.A1 of IEC 60634-4-44:2018). |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 8.0    | EC001457    | ETIM 9.0    | EC001457    |
| ETIM 10.0   | EC001457    | ECLASS 14.0 | 27-17-12-04 |
| ECLASS 15.0 | 27-17-12-04 |             |             |

## Drawings

### Electric symbol



Circuit diagram