

VPU AC I 1+1 300/12.5

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



Weidmüller VPU I (Type I), VPU II (Type II) and VPU III (Type III) surge protection products effectively reduce the interference coupling that can occur due to transient surge voltages, even significantly below the limits prescribed by insulation co-ordination according to EN 60664-3 / DIN VDE 0110-3. This means that the whole installation is exposed to fewer malfunctions. The arresters are co-ordinated using technical means. This means that decoupling between Types I, II and III is unnecessary. The arresters are tested according to product standard IEC 61643-11 / DIN EN 61643-11 and can be installed in systems according to IEC 61643-12 / VDE 0675-6-12 and IEC 62305-4 / VDE 0185-4. This lightning and surge protection device is suited for installation in power supply systems. Weidmüller offers different products depending on the particular mains network type and voltage level. A special Type I and Type II protective device is even available for photovoltaic applications.

General ordering data

| | |
|---------------------|--|
| Version | Surge voltage arrester, Low voltage, Surge protection, Single-phase, TN, IT with N, IT without N, TT |
| Order No. | 2591480000 |
| Type | VPU AC I 1+1 300/12.5 |
| GTIN (EAN) | 4050118599466 |
| Qty. | 1 items |
| Delivery status | This article will no longer be available in the future. |
| Available until | 2026-06-01T00:00:00+02:00 |
| Alternative product | VPU AC I 1+1 300/12.5 LH |

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Technical data

Approvals

Approvals



| | |
|-------------------------|----------------------------|
| ROHS | Conform |
| UL File Number Search | UL Website |
| Certificate No. (cURus) | E3542610000 |

Dimensions and weights

| | | | |
|------------|---------|-----------------|-------------|
| Depth | 91 mm | Depth (inches) | 3.5827 inch |
| Height | 96.3 mm | Height (inches) | 3.7913 inch |
| Width | 36 mm | Width (inches) | 1.4173 inch |
| Net weight | 298 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% |

Rated data UL

| | | |
|--|-------------------------|--------------|
| Ambient temperature (operational), max. 85 °C | Rated Voltage UN | 240 V |
| VPR (N-PE) | MCOV (L-PE) | 300 V |
| MCOV (N-PE) | SCCR | 150 kA |
| In | Category | SPD TYPE 1CA |
| Ambient temperature (operational), min. -40 °C | Certificate No. (cURus) | E3542610000 |
| MODE | VPR (L-N) | 900 V |
| VPR (L-PE) | Voltage type | AC |

Connection data, remote alert

| | |
|-----------------|---------|
| Connection type | PUSH IN |
|-----------------|---------|

General data

| | | | |
|---------------------------|---|---------------|--|
| Optical function display | green = OK; red = arrester is defective - replace | Segment | Power distribution |
| Version | Surge protection | Design | Installation housing; 2TE, Insta IP 20 |
| UL 94 flammability rating | V-0 | Colour | black, orange, blue |
| Protection degree | IP20 in installed state | Mounting rail | TS 35 |
| Operating altitude | ≤ 4000 m | | |

Insulation coordination acc. to EN 50178

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

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Technical data

Rated data IEC / EN

| | | | |
|--|---|---|---|
| Number of poles | 2 | Leakage current at U_n | 1 μ A |
| Signalling contact | No | Rated voltage (AC) | 230 V |
| Low voltage network | Single-phase, TN, IT with N, IT without N, TT | Protection level Up at IN (N-PE) | ≤ 1.5 kV |
| Voltage type | AC | Temporary surge voltage (over-voltage) - TOV | 337 V |
| Fuse protection | No Fuse necessary ≤ 315 A gG | Response time / fallback time | ≤ 25 ns, ≤ 100 ns |
| Frequency range, max. | 60 Hz | Frequency range, min. | 50 Hz |
| Standards | IEC61643-11, EN61643-11, UL 1449 | Lightning test current limp (10/350 μ s) (L-PE) | 12.5 kA |
| Lightning test current, limp (10/350 μ s) (N-PE) | 50 kA | Requirements class, acc. to EN 61643-11 | T1, T2 |
| Requirements category acc. to IEC 61643-11 | Type I, Type II | Max. continuous voltage, U_c (AC) | 300 V |
| Max. continuous voltage, U_c (N-PE) | 305 V | Mains voltage | 230 V / 400 V |
| Discharge current I_{max} (8/20 μ s) N-PE | 50 kA | Discharge current I_n (8/20 μ s) N-PE | 50 kA |
| Energy coordination (≤ 10 m) | Type I, Type II, Type III | Discharge current I_n (8/20 μ s) wire-PE | 20 kA |
| Discharge current I_{max} (8/20 μ s) wire-PE | 50 kA | Protection level Up at IN (L/N-PE) | ≤ 1.5 kV |
| Short-circuit current rating ISCCR | 50 kA | Follow-on current extinguishing capability I_{fi} | Not available due for technical reasons |
| Integrated back-up fuse | No | PE conductor current IPE | 0.6 mA |

Connection data

| | | | |
|--|--------------------|--|---------------------|
| Stripping length | 18 mm | Wire connection method | Screw connection |
| Type of connection | Screw connection | Stripping length, rated connection | 15 mm |
| Tightening torque, min. | 2 Nm | Tightening torque, max. | 4.5 Nm |
| Clamping range, rated connection | 16 mm ² | Clamping range, min. | 4 mm ² |
| Clamping range, max. | 35 mm ² | Wire cross-section, solid, min. | 1.5 mm ² |
| Wire cross-section, solid, max. | 35 mm ² | Wire connection cross section, finely stranded, min. | 1.5 mm ² |
| Wire connection cross section, finely stranded, max. | 25 mm ² | Connection cross-section, stranded, min. | 1.5 mm ² |
| Connection cross-section, stranded, max. | 35 mm ² | | |

Electrical data

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

General data

| | | | |
|-----------------|---------------------|-------------------|-------------------------|
| Number of poles | 2 | Protection degree | IP20 in installed state |
| Colour | black, orange, blue | | |

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). For use in DC applications, please use the fuse of SIBA Type NH2XL aR/aSF DC 1500 V |
|---------------------|---|

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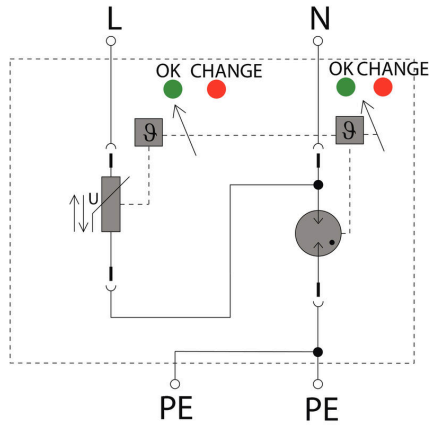
Technical data

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



Schematic circuit diagram