

VPU AC I 1+1 R 300/12.5 LCF

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, with remote contact, Single-phase, TN-C, TN-C-S, TN-S, TT, TN, IT with N, IT without N |
| Order No. | 2636940000 |
| Type | VPU AC I 1+1 R 300/12.5 LCF |
| GTIN (EAN) | 4050118678680 |
| Qty. | 1 pc(s). |
| Replacement parts | 2636900000 2591590000 |

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Technical data
Dimensions and weights

| | | | |
|------------|----------|-----------------|------------|
| Depth | 91 mm | Depth (inches) | 3.583 inch |
| Height | 104.5 mm | Height (inches) | 4.114 inch |
| Width | 36 mm | Width (inches) | 1.417 inch |
| Net weight | 315 g | | |

Temperatures

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

Rated data UL

| | | | |
|---|--------------|---|---------------|
| Ambient temperature (operational), max. | 85 °C | Rated Voltage U_N | 240 V |
| VPR (N-PE) | 1,800 V | MCOV (L/N-PE) | 300 V |
| MCOV (N-PE) | 305 V | I_n | 20 kA |
| Category | SPD TYPE 4CA | Ambient temperature (operational), min. | -40 °C |
| Certificate No. (cURus) | E354261 | MODE | L-N, L-G, N-G |
| Measured. Limiting Voltage | 1,220 V | VPR (L-N) | 1,220 V |
| VPR (L-PE) | 3,020 V | Voltage type | AC |

Connection data, remote alert

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

General data

| | | | |
|---------------------------|-------------------------|--------------------------|---|
| Colour | orange, black, blue | Design | Installation housing; 2TE, Insta IP 20 |
| Operating altitude | ≤ 4000 m | Optical function display | green = OK; red = arrester is defective - replace |
| Protection degree | IP20 in installed state | Rail | TS 35 |
| Segment | Power distribution | Suitable for | Count-in installation (leakage current free) |
| UL 94 flammability rating | V-0 | Version | Surge protection, with remote contact |

Insulation coordination acc. to EN 50178

| | | | |
|--------------------|---|------------------------|----------------|
| Pollution severity | 2 | Surge voltage category | IV, III, II, I |
|--------------------|---|------------------------|----------------|

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Technical data

Rated data IEC / EN

| | | | |
|--|---|---|---|
| Discharge current I_{max} (8/20 μ s) wire-PE | 65 kA | Discharge current I_{max} (8/20 μ s) N-PE | 50 kA |
| Discharge current I_n (8/20 μ s) N-PE | 50 kA | Discharge current I_n (8/20 μ s) wire-PE | 20 kA |
| Energy coordination (≤ 10 m) | Type I, Type II, Type III | Follow-on current extinguishing capability I_{fi} | Not available due for technical reasons |
| Frequency range, max. | 60 Hz | Frequency range, min. | 50 Hz |
| Fuse | No Fuse necessary ≤ 315 A gG, 250 A gG @50 kA I _{sc} cr, 315 A gG @25 kA I _{sc} cr | Leakage current at U_n | 1 μ A |
| Lightning test current I_{imp} (10/350 μ s) (L-PE) | 12.5 kA | Lightning test current, I_{imp} (10/350 μ s) (N-PE) | 50 kA |
| Low voltage network | Single-phase, TN-C, TN-C-S, TN-S, TT, TN, IT with N, IT without N | Mains voltage | 230 V / 400 V |
| Max. continuous voltage, U_c (AC) | 300 V | Max. continuous voltage, U_c (N-PE) | 305 V |
| Number of poles | 2 | Protection level U_p at I_N (L/N-PE) | ≤ 1.5 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_{sc cr | 50 kA |
| Signalling contact | 250 V 1A 1CO | Standards | IEC61643-11, EN61643-11, UL 1449 |
| Suitable for | Count-in installation (leakage current free) | Temporary surge voltage (over-voltage) - TOV | 442 V |
| Voltage type | AC | | |

Connection data

| | | | |
|--|--------------------|--|---------------------|
| Stripping length | 15 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. | 2.5 mm ² |
| Wire cross-section, solid, max. | 35 mm ² | Wire connection cross section, finely stranded, min. | 2.5 mm ² |
| Wire connection cross section, finely stranded, max. | 35 mm ² | Conductor cross-section, flexible, AEH (DIN 46228-1), min. | 2.5 mm ² |
| Conductor cross-section, flexible, AEH (DIN 46228-1), max. | 35 mm ² | Connection cross-section, stranded, min. | 2.5 mm ² |
| Connection cross-section, stranded, max. | 35 mm ² | | |

Ratings IECEx/ATEX/cUL

Certificate no. (cULus) E354261

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 | ECLASS 12.0 | 27-17-90-90 |

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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

Approvals

Approvals



ROHS

Conform

Downloads

| | |
|---|---|
| Approval/Certificate/Document of Conformity | EAC VPU SERIES EU_Konformitätserklärung / EU_Declaration_of_Conformity |
| Engineering Data | CAD data – STEP |
| Tender specification | Ausschreibungstext DE Tenderspecification EN |
| User Documentation | Beipackzettel / Instruction sheet |
| Catalogues | Catalogues in PDF-format |

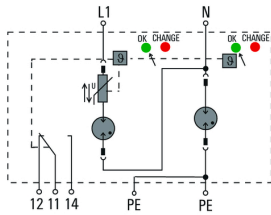
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Drawings

Electric symbol



Schematic circuit diagram