

VPU I 1 LCF 280V/25KA**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com**Type I/II lightning arrester for use upstream/downstream of the electrical meter**

- Can also be used for type II surge protection
- Tested according to IEC 61643-11 for type I and II surge protection
- With 35 kA (10/350 µs) suitable for protective zones I, II, III and IV (LPL I/II/III/IV)

General ordering data

| | |
|---------------------|--|
| Version | Surge voltage arrester, Low voltage, without telecomm. contact, Leakage-current-free, Single-phase |
| Order No. | 1351590000 |
| Type | VPU I 1 LCF 280V/25KA |
| GTIN (EAN) | 4050118158540 |
| Qty. | 1 pc(s). |
| Delivery status | This article will no longer be available in the future. |
| Available until | 2024-03-31 |
| Replacement parts | 1351540000 |
| Alternative product | 2726620000 |

Creation date June 1, 2024 11:47:53 PM CEST

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Technical data

Dimensions and weights

| | | | |
|-----------------------------|---------|-----------------|------------|
| Depth | 69 mm | Depth (inches) | 2.717 inch |
| Height | 94 mm | Height (inches) | 3.701 inch |
| Width | 35.6 mm | Width (inches) | 1.402 inch |
| Mounting dimension - height | 75 mm | Net weight | 363 g |

Temperatures

| | | | |
|---------------------|-----------------------|-----------------------|-------------|
| Storage temperature | -40 °C...80 °C | Operating temperature | -40 °C...70 |
| Humidity | 5 - 95% rel. humidity | | |

General data

| | | | |
|---------------------------|--------------------|--------------------------|---|
| Colour | black, orange | Design | Installation housing; 2TE, Insta IP 20 |
| Operating altitude | ≤ 2000 m | Optical function display | green = OK; red = arrester is defective - replace |
| Protection degree | IP20 | Rail | TS 35 |
| Segment | Power distribution | Suitable for | Count-in installation (leakage current free) |
| UL 94 flammability rating | V-0 | Version | without telecomm. contact, Leakage-current-free |

Insulation coordination acc. to EN 50178

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

Rated data IEC / EN

| | | | |
|--|---|---|---|
| Discharge current I_{\max} (8/20μs) wire-PE | 100 kA | Discharge current I_n (8/20μs) wire-PE | 25 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 ≤250 A gG, 250 A gL (if back up fuse > 250 A) | Leakage current at U_n | 1 μA |
| Lightning test current I_{imp} (10/350 μs) (L-PE) | 25 kA | Low voltage network | Single-phase |
| Mains voltage | 240 V | Max. continuous voltage, U_c (AC) | 280 V |
| Number of poles | 1 | Protection level U_p at I_N (L/N-PE) | ≤ 1.6 kV |
| Rated load current I_L | 100 A | 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 | ≤ 100 ns | Short-circuit current rating I_{SCCR} | 25 kA |
| Signalling contact | No | Standards | IEC61643-11, EN61643-11 |
| Suitable for | Count-in installation (leakage current free) | Temporary surge voltage (over-voltage) - TOV | 438 V |
| Voltage type | AC | | |

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Technical data

Connection data

| | | | |
|--|---------------------|--|--------------------|
| Stripping length | 15 mm | Type of connection | Screw connection |
| Stripping length, rated connection | 15 mm | Tightening torque, min. | 2 Nm |
| Tightening torque, max. | 3 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. | 16 mm ² |
| Wire connection cross section, finely stranded, min. | 2.5 mm ² | Wire connection cross section, finely stranded, max. | 25 mm ² |
| Conductor cross-section, flexible, AEH (DIN 46228-1), min. | 2.5 mm ² | Conductor cross-section, flexible, AEH (DIN 46228-1), max. | 50 mm ² |
| Connection cross-section, stranded, min. | 2.5 mm ² | Connection cross-section, stranded, max. | 50 mm ² |

Classifications

| | | | |
|-------------|-------------|-------------|-------------|
| ETIM 6.0 | EC000941 | ETIM 7.0 | EC000941 |
| ETIM 8.0 | EC000941 | ETIM 9.0 | 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 | ECLASS 13.0 | 27-17-90-90 |

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Technical data

Tender specification sheets

Long specification

Single-pin lightning arrester according to the requirements of Class I in accordance with IEC 61643-11, EN61643-11:2013. On interface transition from 0 to 1 (acc. to IEC 1312-1), the arrester, made from V0 material, serves as lightning protection providing equipotential bonding and is used in applications according to IEC 61643-12. Surge protection is used in the TN, TT and IT mains system types in combination with several lightning protectors. The use of a non-blow-out sparkover gap, in combination with a high-power varistor, satisfies the inspection requirements for Class I surge protection systems in accordance with the VDEW (Association of German Power Stations) directive. The arrester is installed in the vicinity of the power supply for the equipment that needs protection, in a standard installation/electrical distribution enclosure. The VPU I 1 R LCF 280 V/25 kA is earthed, in combination with three or four identical arresters, between the outer conductors (L1, L2, L3 and / or the neutral conductor). Reference is also made here to the 3+1 circuit and the 3+0 / 4+0 circuits. With thermal separation device on the varistor. If protection is no longer available, the colour in the display window changes from green to red. Rated voltage: 230 VAC lightning test current (10/350 µs): 25 kA protection level with lightning test current < 1.6 kV 25 kA short-circuit withstand rating with max. back-up fuse of 250 A gl Type: Weidmüller VPU I 1 LCF 280 V/25 kA Order No. 1351590000 or equivalent

Short specification

Class I arrester for LPL 1 with 25 kA suitable for 230/400 V mains systems. Protection level < 1.6 kV. Type: Weidmüller VPU I 1 LCF 280 V/25 kA Order no. 1351750000 or equivalent

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Technical data

Approvals

Approvals



ROHS

Conform

Downloads

Approval/Certificate/Document of Conformity

[EU_Konformitätserklärung / EU_Declaration_of_Conformity](#)

Engineering Data

[CAD data – STEP](#)

User Documentation

[Beipackzettel / Instruction sheet](#)

Catalogues

[Catalogues in PDF-format](#)

Brochures

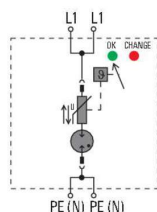
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Drawings

Electric symbol



Schematic circuit diagram

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www.weidmueller.com**Replacement parts****L-PEN 280 V****Spare arrester Type I**

Weidmüller VPU I surge protection products protect low-voltage consumer installations and electronic devices against overvoltages that can occur as a result of atmospheric discharges (thunderstorms) or switching operations (transients). The VPU I series meets the Type I and Type II requirements acc. to IEC 61643-11 and the Type 1 and Type 2 requirements acc. to EN 61643-11. The spare arresters are coded and can only be inserted into suitable bases.

General ordering data

| | | |
|------------|----------------------------|--|
| Type | VPU I 0 LCF 280V/25KA | Version |
| Order No. | 1351540000 | Surge voltage arrester, Low voltage, Accessories, Spare arrester |
| GTIN (EAN) | 4050118158588 | |
| Qty. | 1 pc(s). | |

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www.weidmueller.com**Accessories****Crosshead screwdriver Phillips**

VDE insulated crosshead screwdriver, for Phillips screws, SDIK PH DIN 7438, ISO 8764/2-PH, output to ISO 8764-PH, SoftFinish grip

General ordering data

| | | |
|------------|----------------------------|---|
| Type | SDIK PH1 X 80 | Version |
| Order No. | 2749890000 | Screwdriver, Blade width (B): 1 mm, 80 mm, Blade thickness (A): 1 |
| GTIN (EAN) | 4050118897098 | |
| Qty. | 1 pc(s). | |