

**VPU I 1+1 R LCF 280V/12,5KA****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)**Type I/II lightning arrester for use downstream/upstream of the electrical meter**

- Suitable for protective zones III and IV (LPL III/IV)
- Pluggable arrester
- Can also be used as Type II surge protection
- With remote monitoring function, one changeover contact
- Tested according to IEC 61643-11 for Type I and II surge protection

**General ordering data**

Version	Surge voltage arrester, Low voltage, with remote contact, Leakage-current-free, Single-phase, IT with N, IT without N, TN, TT
Order No.	<a href="#">1352050000</a>
Type	VPU I 1+1 R LCF 280V/12,5KA
GTIN (EAN)	4050118158175
Qty.	1 pc(s).
Replacement parts	<a href="#">1352000000</a> <a href="#">1351930000</a> <a href="#">1402570000</a>

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## Technical data

## Dimensions and weights

Depth	69 mm	Depth (inches)	2.717 inch
Height	106 mm	Height (inches)	4.173 inch
Width	35.6 mm	Width (inches)	1.402 inch
Mounting dimension - height	75 mm	Net weight	305 g

## Temperatures

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

## Connection data, remote alert

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

## General data

Colour	black, orange, blue	Design	Installation housing; 2TE, Insta IP 20
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	with remote contact, Leakage-current-free		

## Insulation coordination acc. to EN 50178

Pollution severity	2	Surge voltage category	IV
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## Rated data IEC / EN

Discharge current $I_{\max}$ (8/20μs) N-PE	100 kA	Discharge current $I_{\max}$ (8/20μs) wire-PE	50 kA
Discharge current $I_n$ (8/20μs) N-PE	50 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
Fuse	250 A gL (if back up fuse > 250 A)	Leakage current at $U_n$	1 μA
Lightning test current $I_{\text{imp}}$ (10/350 μs) (L-PE)	12.5 kA	Lightning test current, $I_{\text{imp}}$ (10/350 μs) (N-PE)	50 kA
Low voltage network	Single-phase, IT with N, IT without N, TN, TT	Mains voltage	240 V
Max. continuous voltage, $U_c$ (AC)	280 V	Max. continuous voltage, $U_c$ (N-PE)	260 V
Number of poles	2	Protection level $U_p$ at $I_N$ (L/N-PE)	≤ 1.45 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 $I_{\text{SCCR}}$	25 kA
Signalling contact	250 V 1A 1CO	Standards	IEC61643-11, EN61643-11
Suitable for	Count-in installation (leakage current free)	Temporary surge voltage (over-voltage) - TOV	438 V
Voltage type	AC		

Creation date July 25, 2024 4:32:01 AM CEST

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## 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 <sup>2</sup>
Clamping range, min.	4 mm <sup>2</sup>	Clamping range, max.	35 mm <sup>2</sup>
Wire cross-section, solid, min.	2.5 mm <sup>2</sup>	Wire cross-section, solid, max.	16 mm <sup>2</sup>
Wire connection cross section, finely stranded, min.	2.5 mm <sup>2</sup>	Wire connection cross section, finely stranded, max.	25 mm <sup>2</sup>
Conductor cross-section, flexible, AEH (DIN 46228-1), min.	2.5 mm <sup>2</sup>	Conductor cross-section, flexible, AEH (DIN 46228-1), max.	50 mm <sup>2</sup>
Connection cross-section, stranded, min.	2.5 mm <sup>2</sup>	Connection cross-section, stranded, max.	50 mm <sup>2</sup>

## 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

Multi-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 (in accordance with IEC 1312-1), the arrester, made from V0 material, serves as lightning protection providing equipotential bonding and is used in applications in accordance with IEC 61643-12. 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+1 R LCF 280 V/12.5 kA is used in the single-phase TN-C and TN-CS mains network. With thermal separation device on the varistor. If protection is no longer available, the colour in the display window changes from green to red. The functional state is also displayed by a voltage-free signalling contact (changeover). Rated voltage: 230 VAC lightning test current (10/350 µs): 25 kA protection level with lightning test current < 1.45 kV 25 kA short-circuit withstand rating with max. back-up fuse of 250 A gl telecommunication output: contact: 250 V/0.5 A 48 VDC/0.1 A  
Type: Weidmüller VPU I 1+1 R LCF 280 V/12.5 kA  
Order No. 1352050000 or equivalent

## Short specification

Class I arrester for LPL III/IV with 12.5 kA suitable for 230 TN-CS, TT mains systems. Protection level < 1.45 kV. With remote alert  
Type: Weidmüller VPU I 1+1 R LCF 280 V/12.5 kA  
Order no. 1352050000 or equivalent

## Environmental Product Compliance

REACH SVHC

/

RoHS Compliance Status

Compliant without exemption

Creation date July 25, 2024 4:32:01 AM CEST

Catalogue status 13.07.2024 / We reserve the right to make technical changes.

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[www.weidmueller.com](http://www.weidmueller.com)**Technical data****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).

**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

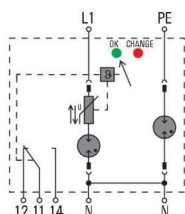
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# Drawings

## Electric symbol



Schematic circuit diagram

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[www.weidmueller.com](http://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/12,5KA	Version
Order No.	<a href="#">1352000000</a>	Surge voltage arrester, Low voltage, Accessories, Spare arrester
GTIN (EAN)	4050118158212	
Qty.	1 pc(s).	

**N-PE 260 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 N-PE 260V/50KA	Version
Order No.	<a href="#">1351930000</a>	Surge voltage arrester, Low voltage, Accessories, Spare arrester, TT
GTIN (EAN)	4050118158274	nur für N-PE
Qty.	1 pc(s).	

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[www.weidmueller.com](http://www.weidmueller.com)**Replacement parts****VPU Series**

Extensive accessories round off the product range

**General ordering data**

Type	PLUG VPU	Version
Order No.	<a href="#">1402570000</a>	VPU series, Accessories
GTIN (EAN)	4050118204360	
Qty.	10 pc(s).	

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[www.weidmueller.com](http://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.	<a href="#">2749890000</a>	Screwdriver, Blade width (B): 1 mm, 80 mm, Blade thickness (A): 1
GTIN (EAN)	4050118897098	
Qty.	1 pc(s).	