

VPU I 1 R LCF 280V/12,5KA

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



Type I/II lightning arrester for use downstream/ upstream of the electrical meter

- No-leakage-current version suitable for use upstream of the electrical meter
- Suitable for protection classes III and IV (LPLIII/IV)
- Can also be used as Type II surge protection
- Tested according to IEC 61643-11 for Type I and II surge protection
- Pluggable arrester

General ordering data

Version	Surge voltage arrester, Low voltage, with remote contact, Leakage-current-free, Single-phase
Order No.	1352080000
Type	VPU I 1 R LCF 280V/12,5KA
GTIN (EAN)	4050118158151
Qty.	1 pc(s).
Replacement parts	1352000000 1402570000

Creation date December 1, 2023 12:38:51 PM CET

Catalogue status 24.11.2023 / We reserve the right to make technical changes.

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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	17.8 mm	Width (inches)	0.701 inch
Mounting dimension - height	75 mm	Net weight	189 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 ²
Cross-section for connected wire, solid core, min.	0.14 mm ²	Stripping length	8 mm

General data

Colour	black, orange	Design	Installation housing; 1TE, 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} (8/20 μ s) wire-PE	50 kA	Discharge current I_n (8/20 μ s) 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	250 A gL (if back up fuse > 250 A)	Leakage current at U_n	1 μ A
Lightning test current I_{imp} (10/350 μ s) (L-PE)	12.5 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)	≤ 1.45 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	≤ 100 ns
Short-circuit current rating I_{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

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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 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	27179090

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Tender specification sheets

Long specification	Single-pin lightning	Short specification
	<p>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 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 R LCF 280 V/12.5 kA Order No. 1352080000 or equivalent</p>	<p>Class I arrester for LPL III/IV with 12.5 kA suitable for 230 V for single-phase mains systems. Protection level < 1.45 kV. With remote alert Type: Weidmüller VPU I 1R LCF 280 V/12.5 kA Order no. 1352080000 or equivalent</p>

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Technical data

Approvals

Approvals



ROHS

Conform

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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

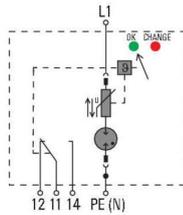
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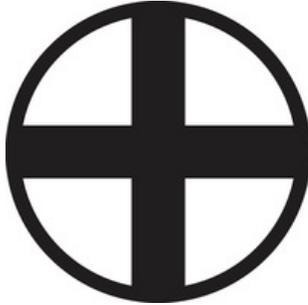
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Drawings

Electric symbol



Schematic circuit diagram

VPU I 1 R LCF 280V/12,5KA**Weidmüller Interface GmbH & Co. KG**
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Germanywww.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): 80 mm, Blade thickness (A):
GTIN (EAN)	4050118897098	
Qty.	1 pc(s).	

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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.	1352000000	Surge voltage arrester, Low voltage, Accessories, Spare arrester
GTIN (EAN)	4050118158212	
Qty.	1 pc(s).	

VPU Series



Versatile accessories round off the surge protection range. E.g. the all-purpose measuring device V-TEST, which is used to check the function of pluggable arresters such as VSPC.

General ordering data

Type	PLUG VPU	Version
Order No.	1402570000	VPU series, Accessories
GTIN (EAN)	4050118204360	
Qty.	10 pc(s).	