

VPU I 1+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, IT with N, IT without N, TN
Order No.	1351750000
Type	VPU I 1+1 LCF 280V/25KA
GTIN (EAN)	4050118158410
Qty.	1 pc(s).

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Catalogue status 12.03.2021 / 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	94 mm	Height (inches)	3.701 inch
Mounting dimension - height	75 mm	Net weight	609 g
Width	71.2 mm	Width (inches)	2.803 inch

Temperatures

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

General data

Colour	black, orange, blue	Design	Installation housing; 4TE, 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	without telecomm. 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	100 kA	Discharge current $I_{\max}$ (8/20 μ s) N-PE	100 kA
Discharge current I_n (8/20 μ s) N-PE	100 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	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 μ A
Lightning test current I_{imp} (10/350 μ s) (L-PE)	25 kA	Lightning test current, I_{imp} (10/350 μ s) (N-PE)	100 kA
Low voltage network	Single-phase, IT with N, IT without N, TN	Mains voltage	240 V
Max. continuous voltage, U_c (AC)	280 V	Max. continuous voltage, U_c (N-PE)	260 V
Number of poles	1	Protection level U_p at I_n (L/N-PE)	≤ 1.6 kV
Protection level U_p at I_n (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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Connection data

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
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

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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 LCF 280 V/25 kA is used in the single-phase 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. 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 strength with max. back-up fuse of 250 A gl
Type: Weidmüller VPU I 1+1 LCF 280 V/25 kA
Order No. 1351750000 or equivalent

Short specification

Class I arrester for LPL 1 with 25 kA suitable for 230/400 V single-phase mains systems. Protection level < 1.6 kV. Type: Weidmüller VPU I 1+1 LCF 280 V/25 kA
Order no. 1351640000 or equivalent

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).

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www.weidmueller.com**Technical data****Approvals**

Approvals



ROHS

Conform

Downloads

Approval/Certificate/Document of Conformity	EAC VPU SERIES CE PAPER
Engineering Data	STEP
Engineering Data	EPLAN, WSCAD
User Documentation	Instruction sheet

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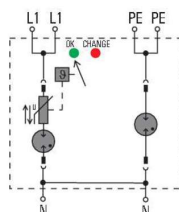
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Drawings

Electric symbol



Schematic circuit diagram