

VPU I 1+1 R 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 of the electrical meter**

- With 25 kA (10/350 µs) suitable for protective zones I, II, III and IV (LPL I/II/III/IV)
- With remote monitoring function, one changeover contact
- 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, IT with N, IT without N, TN
Order No.	1351740000
Type	VPU I 1+1 R LCF 280V/25KA
GTIN (EAN)	4050118158427
Qty.	1 pc(s).

Creation date March 23, 2021 5:45:46 PM CET

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	106 mm	Height (inches)	4.173 inch
Mounting dimension - height	75 mm	Net weight	617 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		

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, 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	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	100 kA
Discharge current I_n (8/20 μ s) N-PE	100 kA
Energy coordination (≤ 10 m)	Type I, Type II, Type III
Frequency range, max.	60 Hz
Fuse	No Fuse necessary ≤ 250 A gG, 250 A gL (if back up fuse > 250 A)
Lightning test current I_{imp} (10/350 μ s) (L-PE)	25 kA
Low voltage network	Single-phase, IT with N, IT without N, TN
Max. continuous voltage, U_c (AC)	280 V
Number of poles	1
Protection level U_p at I_N (N-PE)	≤ 1.6 kV
Rated voltage (AC)	230 V
Requirements class, acc. to EN 61643-11	T1, T2
Short-circuit current rating I_{SCCR}	25 kA
Standards	IEC61643-11, EN61643-11
Temporary surge voltage (over-voltage) - TOV	438 V

Discharge current $I_{\max}$ (8/20 μ s) N-PE	100 kA
Discharge current I_n (8/20 μ s) wire-PE	25 kA
Follow-on current extinguishing capability I_{fi}	Not available due for technical reasons
Frequency range, min.	50 Hz
Leakage current at U_n	1 μ A
Lightning test current, I_{imp} (10/350 μ s) (N-PE)	100 kA
Mains voltage	240 V
Max. continuous voltage, U_c (N-PE)	260 V
Protection level U_p at I_N (L/N-PE)	≤ 1.6 kV
Rated load current I_L	125 A
Requirements category acc. to IEC 61643-11	Type I, Type II
Response time	≤ 100 ns
Signalling contact	250 V 1A 1CO
Suitable for	Count-in installation (leakage current free)
Voltage type	AC

Connection data

Type of connection	Screw connection
Tightening torque, min.	2 Nm
Clamping range, rated connection	16 mm ²
Clamping range, max.	35 mm ²
Wire cross-section, solid, max.	16 mm ²
Wire connection cross section, finely stranded, max.	25 mm ²
Conductor cross-section, flexible, AEH (DIN 46228-1), max.	50 mm ²
Connection cross-section, stranded, max.	50 mm ²

Stripping length, rated connection	15 mm
Tightening torque, max.	3 Nm
Clamping range, min.	4 mm ²
Wire cross-section, solid, min.	2.5 mm ²
Wire connection cross section, finely stranded, min.	2.5 mm ²
Conductor cross-section, flexible, AEH (DIN 46228-1), min.	2.5 mm ²
Connection cross-section, stranded, min.	2.5 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 R 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. 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 < 1.6 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/25 kA Order No. 1351740000 or equivalent

Short specification

Class I arrester for LPL I with 25 kA suitable for 230/400 V single-phase mains systems. Protection level < 1.6 kV. With remote alert Type: Weidmüller VPU I 1+1 R LCF 280 V/25 kA Order no. 1351740000 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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Approvals



ROHS

Conform

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

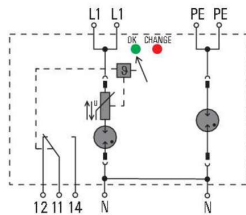
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Drawings

Electric symbol



Schematic circuit diagram