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).

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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 °C
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 neccessary ≤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, Uc (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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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 mm²	Clamping range, min.	4 mm²
Clamping range, max.	35 mm²	Wire cross-section, solid, min.	2.5 mm²
Wire cross-section, solid, max.	16 mm²	Wire connection cross section, finely stranded, min.	2.5 mm²
Wire connection cross section, finely stranded, max.	25 mm²	Conductor cross-section, flexible, AEH (DIN 46228-1), min.	2.5 mm²
Conductor cross-section, flexible, AEH (DIN 46228-1), max.	50 mm²	Connection cross-section, stranded, min.	2.5 mm²
Connection cross-section, stranded, max.	50 mm²		

Classifications

ETIM 6.0	EC000941	ETIM 7.0	EC000941
ETIM 8.0	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	Single-pin lightning arrestor 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 arrestor, 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 arrestor 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 arrestors, 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	EAC VPU SERIES EU_Konformitätserklärung / EU_Declaration_of_Conformity
Engineering Data	STEP
Engineering Data	EPLAN, WSCAD
User Documentation	Instruction sheet
Catalogues	Catalogues in PDF-format
Brochures	

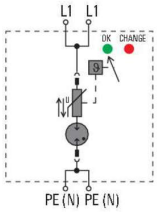
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Drawings

Electric symbol



Schematic circuit diagram