

VPU I 1 LCF 280V/35KA

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



Weidmüller VPU I (Type I), VPU II (Type II) and VPU III (Type III) surge protection products effectively reduce the interference coupling that can occur due to transient surge voltages, even significantly below the limits prescribed by insulation co-ordination according to EN 60664-3 / DIN VDE 0110-3. This means that the whole installation is exposed to fewer malfunctions. The arresters are co-ordinated using technical means. This means that decoupling between Types I, II and III is unnecessary. The arresters are tested according to product standard IEC 61643-11 / DIN EN 61643-11 and can be installed in systems according to IEC 61643-12 / VDE 0675-6-12 and IEC 62305-4 / VDE 0185-4. This lightning and surge protection device is suited for installation in power supply systems. Weidmüller offers different products depending on the particular mains network type and voltage level. A special Type I and Type II protective device is even available for photovoltaic applications.

General ordering data

Version	Surge voltage arrester, Low voltage, without telecomm. contact, Leakage-current-free, Single-phase
Order No.	1351350000
Type	VPU I 1 LCF 280V/35KA
GTIN (EAN)	4050118158724
Qty.	1 pc(s).
Delivery status	This article will no longer be available in the future.
Available until	2020-12-31
Alternative product	2726620000

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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	520 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	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_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	No Fuse necessary ≤ 315 A gG	Leakage current at U_n	1 μ A
Lightning test current I_{imp} (10/350 μ s) (L-PE)	35 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)	≤ 1.8 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	440 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	Single-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 (acc. to 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. 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 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/35 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): 35 kA protection level with lightning test current < 2.5 kV 25 kA short-circuit withstand rating with max. back-up fuse of 315 A gl Type: Weidmüller VPU I 1 LCF 280 V/35 kA Order No. 1351350000 or equivalent	Short specification
		Class I arrester for LPL 1 with 35 kA suitable for 230/400 V mains systems. Protection level < 2.5 kV. Type: Weidmüller VPU I 1 LCF 280 V/35 kA Order no. 1351350000 or equivalent

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Technical data**Approvals**

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

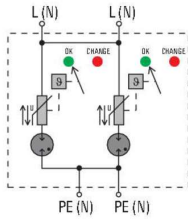
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Drawings

Electric symbol



Schematic circuit diagram