

VPU I 3+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 μ s) 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, TN-C-S, TN-S, IT with N, IT without N, TT
Order No.	1351770000
Type	VPU I 3+1 R LCF 280V/25KA
GTIN (EAN)	4050118158403
Qty.	1 pc(s).
Replacement parts	1351540000 1351940000 1402570000

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Catalogue status 20.05.2022 / 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	142.4 mm	Width (inches)	5.606 inch
Mounting dimension - height	75 mm	Net weight	1,272 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, blue	Design	Installation housing; 8 TE, 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	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_{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 capability I_{fi}	Not available due for technical reasons
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	TN-C-S, TN-S, IT with N, IT without N, TT	Mains voltage	230 V / 400 V
Max. continuous voltage, U_c (AC)	280 V	Max. continuous voltage, U_c (N-PE)	260 V
Number of poles	4	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	125 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	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

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	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

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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 3+1 R LCF 280 V/25 kA is used in the TN-C and TN-C 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 3+1 R LCF 280 V/25 kA Order No. 1351770000 or equivalent	Short specification
		Class I arrester for LPL I with 25 kA suitable for 230/400 V TN-CS, TT mains systems. Protection level < 1.6 kV. With remote alert Type: Weidmüller VPU I 3+1 R LCF 280 V/25 kA Order no. 1351770000 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

Approvals



ROHS

Conform

Downloads

Approval/Certificate/Document of Conformity	EAC VPU SERIES EU Konformitätserklärung / EU Declaration of Conformity
Engineering Data	CAD data – STEP
Engineering Data	EPLAN, WSCAD
User Documentation	Beipackzettel / Instruction sheet
Catalogues	Catalogues in PDF-format
Brochures	

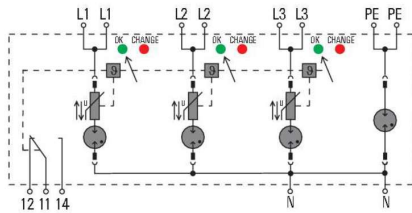
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Drawings

Electric symbol



Schematic circuit diagram