

VPU series
VPU I 3+1 R LCF 280V/25KA

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
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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

Type	VPU I 3+1 R LCF 280V/25KA
Order No.	1351770000
Version	Surge voltage arrester, Low voltage, with remote contact, Leakage-current-free, TN-C-S, TN-S, TT, IT with N, IT without N
GTIN (EAN)	4050118158403
Qty.	1 pc(s).

Data sheet

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Technical data

Dimensions and weights

Width	142.4 mm	Width (inches)	5.606 inch
Height	106 mm	Height (inches)	4.173 inch
Depth	69 mm	Depth (inches)	2.717 inch
Mounting dimension - height	75 mm	Net weight	1,273.51 g

Temperatures

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

Connection data, remote alert

Connection type	PUSH IN	Stripping length	8 mm
Cross-section for connected wire, solid core, min.	0.14 mm ²	Cross-section for connected wire, solid core, max.	1.5 mm ²

General data

Colour	black, orange, blue	Design	Installation housing; 8 TE, 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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Technical data

Rated data IEC / EN

Rated voltage (AC)	230 V	Voltage type	AC
Max. continuous voltage, U_c (AC)	280 V	Max. continuous voltage, U_c (N-PE)	260 V
Low voltage network	TN-C-S, TN-S, TT, IT with N, IT without N	Discharge current I_n (8/20 μ s) N-PE	100 kA
Discharge current I_{max} (8/20 μ s) N-PE	100 kA	Discharge current I_n (8/20 μ s) wire-PE	25 kA
Discharge current I_{max} (8/20 μ s) wire-PE	100 kA	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	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)
Short-circuit current rating I_{SCCR}	25 kA	Follow-on current extinguishing capability I_{fi}	Not available due for technical reasons
Standards	IEC61643-11, EN61643-11	Energy coordination (≤ 10 m)	Type I, Type II, Type III
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
Leakage current at U_n	1 μ A	Temporary surge voltage (over-voltage) - TOV	438 V
Number of poles	4	Rated load current I_L	125 A
Requirements category acc. to IEC 61643-11	Type I, Type II	Requirements class, acc. to EN 61643-11	T1, T2
Response time	≤ 100 ns	Signalling contact	250 V 1A 1CO
Suitable for	Count-in installation (leakage current free)		

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	UNSPSC	30-21-19-22

Product information

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

Downloads

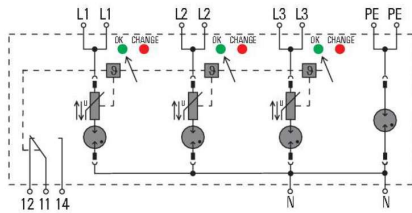
Approval/Certificate/Document of Conformity	EAC VPU SERIES CE PAPER Declaration of Conformity
Brochure/Catalogue	CAT 4.4 ELECTR 16/17 EN
Engineering Data	EPLAN_WSCAD
Engineering Data	STEP
User Documentation	Instruction sheet

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Drawings

Electric symbol



Schematic circuit diagram

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Accessories
N-PE 260 V

Spare arrester Type I

Weidmüller VPU I surge protection products protect low-voltage consumer installations and electronic devices against overvoltages that can occur as a result of atmospheric discharges (thunderstorms) or switching operations (transients). The VPU I series meets the Type I and Type II requirements acc. to IEC 61643-11 and the Type 1 and Type 2 requirements acc. to EN 61643-11. The spare arresters are coded and can only be inserted into suitable bases.

General ordering data

Type	VPU I 0 N-PE 260V/100KA	Version
Order No.	1351940000	Surge voltage arrester, Low voltage, Accessories, Spare arrester, TT
GTIN (EAN)	4050118158267	nur für N-PE
Qty.	1 pc(s).	

Crosshead screwdriver Phillips

VDE insulated crosshead screwdriver, for Phillips screws, SDIK PH DIN 7438, ISO 8764/2-PH, output to ISO 8764-PH, SoftFinish grip


General ordering data

Type	SDIK PH 1	Version
Order No.	9008570000	Screwdriver, Blade length: 80 mm
GTIN (EAN)	4032248056569	
Qty.	1 pc(s).	

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Accessories
L-PEN 280 V

Spare arrester Type I

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General ordering data

Type	VPU I 0 LCF 280V/25KA	Version
Order No.	1351540000	Surge voltage arrester, Low voltage, Accessories, Spare arrester
GTIN (EAN)	4050118158588	
Qty.	1 pc(s).	

VPU series accessories


Versatile accessories round off the surge protection range. E.g. the all-purpose measuring device V-TEST, which is used to check the function of pluggable arresters such as VSPC.

General ordering data

Type	PLUG VPU	Version
Order No.	1402570000	VPU series, Accessories
GTIN (EAN)	4050118204360	
Qty.	10 pc(s).	