

VPU I 1+1 R 400V/25KA

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com



Similar to illustration



Type I/II lightning arrester for use in 400/690 V mains systems

- Can also be used as Type II surge protection
- 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, Single-phase, IT with N, IT without N, TN, TT
Order No.	1351830000
Type	VPU I 1+1 R 400V/25KA
GTIN (EAN)	4050118158359
Qty.	1 pc(s).
Alternative product	2619220000
Replacement parts	1351790000 1351990000 1402570000

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Catalogue status 24.11.2023 / 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	71.2 mm	Width (inches)	2.803 inch
Mounting dimension - height	75 mm	Net weight	642 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; 4TE, 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	UL 94 flammability rating	V-0
Version	with remote contact		

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) N-PE	100 kA	Discharge current I_{max} (8/20 μ s) wire-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	100 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	Single-phase, IT with N, IT without N, TN, TT	Mains voltage	240 V
Max. continuous voltage, U_c (AC)	400 V	Max. continuous voltage, U_c (N-PE)	440 V
Number of poles	2	Protection level U_p at I_N (L/N-PE)	≤ 1.9 kV
Protection level U_p at I_N (N-PE)	≤ 3 kV	Rated load current I_L	125 A
Rated voltage (AC)	400 V	Requirements category acc. to IEC 61643-11	Type I, Type II
Requirements class, acc. to EN 61643-11	T1, T2	Response time	≤ 25 ns, ≤ 100 ns
Short-circuit current rating I_{SCCR}	25 kA	Signalling contact	250 V 1A 1CO
Standards	IEC61643-11, EN61643-11	Temporary surge voltage (over-voltage) - TOV	620 V
Voltage type	AC		

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2

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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	ETIM 9.0	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	ECLASS 13.0	27179090

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Technical data

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 400 V/25 kA is installed 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: 400 VAC lightning test current (10/350 µs): 25 kA protection level with lightning test current < 1.9 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 400 V/25 kA Order No. 1351830000 or equivalent	Short specification
		Class I arrester for LPL 1 with 25 kA suitable for 400/690 V single-phase mains systems. Protection level < 1.9 kV. With remote alert Type: Weidmüller VPU I 1+1 R 400 V/25 kA Order no. 1351850000 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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Technical data

Approvals

Approvals



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Approval/Certificate/Document of
Conformity

[EU Konformitätserklärung / EU Declaration of Conformity](#)

Engineering Data

[CAD data – STEP](#)

User Documentation

[Beipackzettel / Instruction sheet](#)

Catalogues

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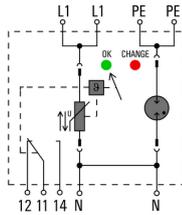
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Drawings

Electric symbol



Schematic circuit diagram

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Replacement parts

VPU Series



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).	

L-PEN 400 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 O 400V/25KA	Version
Order No.	1351790000	Surge voltage arrester, Low voltage, Accessories, Spare arrester
GTIN (EAN)	4050118158380	
Qty.	1 pc(s).	

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Replacement parts

N-PE 440 V



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General ordering data

Type	VPU I 0 N-PE 440V/100KA	Version
Order No.	1351990000	Surge voltage arrester, Low voltage, Accessories, Spare arrester, TT
GTIN (EAN)	4050118158229	nur für N-PE
Qty.	1 pc(s).	

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Accessories**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 PH1 X 80	Version
Order No.	2749890000	Screwdriver, Blade width (B): 80 mm, Blade thickness (A):
GTIN (EAN)	4050118897098	
Qty.	1 pc(s).	