VPU I 3+1 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, without telecomm. contact, TN-C-S, TN-S, IT with N, IT without N, TT
Order No.	1351890000
Type	VPU I 3+1 400V/25KA
GTIN (EAN)	4050118158304
Qty.	1 pc(s).
Replacement parts	1351790000 1351990000

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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	142.4 mm	Width (inches)	5.606 inch
Mounting dimension - height	75 mm	Net weight	1,372 g

Temperatures

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

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	UL 94 flammability rating	V-0
Version	without telecomm. contact		

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_{max} (8/20µs) N-PE	100 kA
Discharge current I_n (8/20µs) N-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
Fuse	No Fuse neccessary ≤250 A gG, 250 A gL (if back up fuse > 250 A)	Leakage current at U_n	100 µA
Lightning test current I_{imp} (10/350 µs) (L-PE)	25 kA	Lightning test current, I_{imp} (10/350 µs) (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, 400 V / 690 V
Max. continuous voltage, Uc (AC)	400 V	Max. continuous voltage, Uc (N-PE)	440 V
Number of poles	4	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	100 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	No
Standards	IEC61643-11, EN61643-11	Temporary surge voltage (over-voltage) - TOV	620 V
Voltage type	AC		

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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 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	ECLASS 12.0	27-17-90-90

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Tender specification sheets

Long specification	Multi-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, is used 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-performance 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 3+1 400 V/25 kA is used in the TN-C and TN-S 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. 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 Type: Weidmüller VPU I 3+1 400 V/25 kA Order No. 1351890000 or equivalent	Short specification Class I arrester for LPL 1 with 25 kA suitable for 400/690 V TN-CS, TT mains systems. Protection level < 1.9 kV. Type: Weidmüller VPU I 3+1 400 V/25 kA Order no. 1351890000 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	
ROHS	Conform

Downloads

Approval/Certificate/Document of Conformity	EAC VPU SERIES EU_Konformitätserklärung / EU_Declaration_of_Conformity
Engineering Data	CAD data – STEP
Engineering Data	WSCAD
User Documentation	Beipackzettel / Instruction sheet
Catalogues	Catalogues in PDF-format

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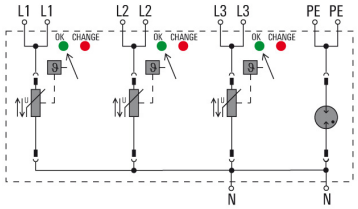
Drawings

Electric symbol



Schematic circuit diagram