VPU AC I 3+1 R 300/12.5 LCF

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
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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, Surge protection, with remote contact, TN-C-S, TN-S, TT, IT with N, IT without N
Order No.	2636920000
Type	VPU AC I 3+1 R 300/12.5 LCF
GTIN (EAN)	4050118679236
Qty.	1 pc(s).
Replacement parts	2636900000 2591590000

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Technical data

Dimensions and weights

Depth	91 mm	Depth (inches)	3.583 inch
Height	104.5 mm	Height (inches)	4.114 inch
Width	76 mm	Width (inches)	2.992 inch
Net weight	665 g		

Temperatures

Storage temperature	-40 °C...85 °C	Operating temperature	-40 °C...70 °C
Humidity	5 - 95% rel. humidity		

Rated data UL

Ambient temperature (operational), max.	85 °C	Rated Voltage U_N	240 V
VPR (N-PE)	1,800 V	MCOV (N-PE)	305 V
I_n	20 kA	Category	SPD TYPE 4CA
Ambient temperature (operational), min.	-40 °C	Certificate No. (cURus)	E354261
MODE	all modes	Measured. Limiting Voltage	3,020 V
VPR (L-L)	2,440 V	VPR (L-N)	1,220 V
VPR (L-PE)	3,020 V	Voltage type	AC

Connection data, remote alert

Connection type	PUSH IN	Cross-section for connected wire, solid core, max.	1.5 mm²
Cross-section for connected wire, solid core, min.	0.14 mm²	Stripping length	8 mm

General data

Colour	orange, black, blue	Design	Installation housing; 4TE, Insta IP 20
Operating altitude	≤ 4000 m	Optical function display	green = OK; red = arrester is defective - replace
Protection degree	IP20 in installed state	Rail	TS 35
Segment	Power distribution	Suitable for	Count-in installation (leakage current free)
UL 94 flammability rating	V-0	Version	Surge protection, with remote contact

Insulation coordination acc. to EN 50178

Pollution severity	2	Surge voltage category	IV, III, II, I

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Technical data

Rated data IEC / EN

Discharge current I_{max} (8/20µs) wire-PE	65 kA	Discharge current I_{max} (8/20µs) N-PE	50 kA
Discharge current I_n (8/20µs) N-PE	50 kA	Discharge current I_n (8/20µs) wire-PE	20 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 neccessary ≤315 A gG, 250 A gG @50 kA Isccr, 315 A gG @25 kA Isccr	Leakage current at U_n	1 µA
Lightning test current I_{imp} (10/350 µs) (L-PE)	12.5 kA	Lightning test current, I_{imp} (10/350 µs) (N-PE)	50 kA
Low voltage network	TN-C-S, TN-S, TT, IT with N, IT without N	Max. continuous voltage, Uc (AC)	300 V
Max. continuous voltage, Uc (N-PE)	305 V	Number of poles	4
Protection level U_p at I_N (L/N-PE)	≤ 1.5 kV	Protection level U_p at I_N (N-PE)	≤ 1.5 kV
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	≤ 25 ns, ≤ 100 ns
Short-circuit current rating I_{SCCR}	50 kA	Signalling contact	250 V 1A 1CO
Standards	IEC61643-11, EN61643-11, UL 1449	Suitable for	Count-in installation (leakage current free)
Temporary surge voltage (over-voltage) - TOV	442 V	Voltage type	AC

Connection data

Wire connection method	Screw connection	Type of connection	Screw connection
Stripping length, rated connection	15 mm	Tightening torque, min.	2 Nm
Tightening torque, max.	4.5 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.	35 mm²
Wire connection cross section, finely stranded, min.	2.5 mm²	Wire connection cross section, finely stranded, max.	35 mm²
Conductor cross-section, flexible, AEH (DIN 46228-1), min.	2.5 mm²	Conductor cross-section, flexible, AEH (DIN 46228-1), max.	35 mm²
Connection cross-section, stranded, min.	2.5 mm²	Connection cross-section, stranded, max.	35 mm²

Ratings IECEx/ATEX/cUL

Certificate no. (cULus)	E354261

Guarantee

Time interval	5 years

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		

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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). For use in DC applications, please use the fuse of SIBA Type NH2XL aR/aSF DC 1500 V

Approvals

Approvals	
ROHS	Conform
UL File Number Search	E354261

Downloads

Approval/Certificate/Document of Conformity	EAC VPU SERIES EU_Konformitätserklärung / EU_Declaration_of_Conformity
Engineering Data	STEP
Tender specification	Ausschreibungstext DE Tenderspecification EN
User Documentation	Beipackzettel / Instruction sheet
Catalogues	Catalogues in PDF-format

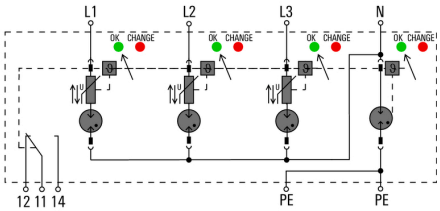
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Drawings

Electric symbol



Schematic circuit diagram