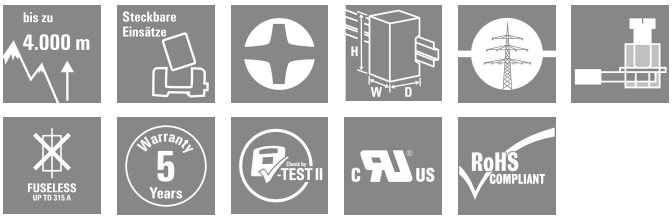
Data sheet

VPU AC II 1+1 R 300/50

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
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, Single-phase, TN, TT, IT with N, IT without N
Order No.	2591070000
Type	VPU AC II 1+1 R 300/50
GTIN (EAN)	4050118599862
Qty.	1 items

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Technical data

Approvals

Approvals	
ROHS	Conform
UL File Number Search	UL Website
Certificate No. (cURus)	E3542610000

Dimensions and weights

Depth	68 mm	Depth (inches)	2.6772 inch
Depth including DIN rail	76 mm	Height	104.5 mm
Height (inches)	4.1142 inch	Width	36 mm
Width (inches)	1.4173 inch	Net weight	257 g

Temperatures

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

Environmental Product Compliance

RoHS Compliance Status	Compliant without exemption
REACH SVHC	No SVHC above 0.1 wt%

Rated data UL

Ambient temperature (operational), max.	85 °C	Rated Voltage UN	240 V
VPR (N-PE)	1000 V	MCOV (L-PE)	300 V
MCOV (N-PE)	305 V	SCCR	150 kA
In	20 kA	Category	SPD TYPE 1CA
Ambient temperature (operational), min.	-40 °C	Certificate No. (cURus)	E3542610000
MODE	all modes	VPR (L-N)	900 V
VPR (L-PE)	1000 V	Voltage type	AC
UL Energy Networks	Split-Phase		

Connection data, remote alert

Cross-section for connected wire, solid core, min.	0.25 mm²	Stripping length	8 mm
Connection type	PUSH IN	Cross-section for connected wire, solid core, max.	1.5 mm²

General data

Optical function display	green = OK; red = arrester is defective - replace	Segment	Power distribution
Version	Surge protection, with remote contact	Design	Installation housing; 2TE, Insta IP 20
UL 94 flammability rating	V-0	Colour	black, orange, blue
Protection degree	IP20 in installed state	Mounting rail	TS 35
Operating altitude	≤ 4000 m		

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Insulation coordination acc. to EN 50178

Surge voltage category	III	Pollution severity	2

Rated data IEC / EN

Number of poles	2	Combined pulse UOC	6 kV
Leakage current at Un	1 µA	Signalling contact	250 V 1A 1CO
Rated voltage (AC)	230 V	Low voltage network	Single-phase, TN, TT, IT with N, IT without N
Protection level Up at IN (N-PE)	≤ 1.5 kV	Voltage type	AC
Temporary surge voltage (over-voltage) - TOV	337 V	Fuse protection	No Fuse neccessary ≤315 A gG, 250 A gG @50 kA Isccr, 315 A gG @25 kA Isccr
Response time / fallback time	≤ 25 ns	Frequency range, max.	60 Hz
Frequency range, min.	50 Hz	Standards	IEC 61643-11, EN 61643-11, UL 1449
Requirements class, acc. to EN 61643-11	T2, T3	Requirements category acc. to IEC 61643-11	Type II, Type III
Max. continuous voltage, Uc (AC)	300 V	Max. continuous voltage, Uc (N-PE)	305 V
Mains voltage	230 V / 400 V	Discharge current Imax (8/20µs) N-PE	65 kA
Discharge current In (8/20µs) N-PE	40 kA	Energy coordination (≤10 m)	Type II, Type III
Discharge current In (8/20µs) wire-PE	20 kA	Discharge current Imax (8/20µs) wire-PE	50 kA
SPD type	T2, T3	Protection level Up at IN (L/N-PE)	≤ 1500 V
Short-circuit current rating ISCCR	50 kA	Discharge current (type III)	3 kA
Follow-on current extinguishing capability Ifi	Follow current need not be taken into account	Integrated back-up fuse	No

Connection data

Stripping length	15 mm	Wire connection method	Screw connection
Type of connection	Screw connection	Stripping length, rated connection	15 mm
Tightening torque, min.	3 Nm	Tightening torque, max.	4.5 Nm
Clamping range, rated connection	16 mm²	Clamping range, min.	1.5 mm²
Clamping range, max.	35 mm²	Wire connection cross section AWG, min.	AWG 16
Wire connection cross section AWG, max.	AWG 2	Wire cross-section, solid, min.	1.5 mm²
Wire cross-section, solid, max.	35 mm²	Wire connection cross section, finely stranded, min.	1.5 mm²
Wire connection cross section, finely stranded, max.	25 mm²	Connection cross-section, stranded, min.	1.5 mm²
Connection cross-section, stranded, max.	35 mm²		

Electrical data

Voltage type	AC

General data

Number of poles	2	Protection degree	IP20 in installed state
Colour	black, orange, blue		

Guarantee

Time interval	5 years

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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

Classifications

ETIM 8.0	EC000941	ETIM 9.0	EC000941
ETIM 10.0	EC000941	ECLASS 14.0	27-17-12-02
ECLASS 15.0	27-17-12-02		

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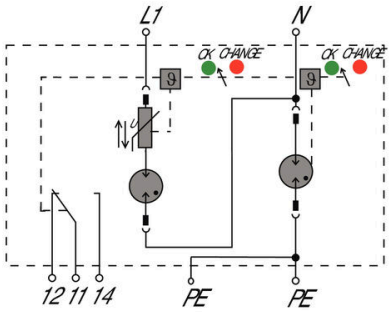
Drawings

Electric symbol



Schematic circuit diagram