

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, TN-S, TT, IT with N, IT without N
Order No.	2591070000
Type	VPU AC II 1+1 R 300/50
GTIN (EAN)	4050118599862
Qty.	1 pc(s).
Replacement parts	2591010000 2591190000 2855300000

VPU AC II 1+1 R 300/50

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Technical data

Dimensions and weights

Depth	68 mm	Depth (inches)	2.677 inch
Depth including DIN rail	76 mm	Height	104.5 mm
Height (inches)	4.114 inch	Width	36 mm
Width (inches)	1.417 inch	Net weight	257 g

Temperatures

Storage temperature	-40 °C...85 °C	Operating temperature	-40 °C...85 °C
Operating temperature, min.	-40 °C	Operating temperature, max.	85 °C
Humidity	5 - 95% rel. humidity		

Rated data UL

Ambient temperature (operational), max.	85 °C	Rated Voltage U_N	240 V
VPR (N-PE)	1,000 V	MCOV (N-PE)	305 V
SCCR	150 kA	I_n	20 kA
Category	SPD TYPE 1CA	Ambient temperature (operational), min.	-40 °C
Certificate No. (cURus)	E35426 1	MODE	all modes
VPR (L-N)	900 V	VPR (L-PE)	1,000 V
Voltage type	AC	UL Energy Networks	Split-Phase

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; 2TE, 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	UL 94 flammability rating	V-0
Version	Surge protection, with remote contact		

Insulation coordination acc. to EN 50178

Pollution severity	2	Surge voltage category	III
--------------------	---	------------------------	-----

VPU AC II 1+1 R 300/50

Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

Technical data

Rated data IEC / EN

Combined pulse U_{OC}	6 kV	Discharge current I_{max} (8/20 μ s) wire-PE	50 kA
Discharge current I_{max} (8/20 μ s) N-PE	65 kA	Discharge current I_n (8/20 μ s) N-PE	40 kA
Discharge current I_n (8/20 μ s) wire-PE	20 kA	Energy coordination (≤ 10 m)	Type II, Type III
Follow-on current extinguishing capability I_{fi}	Follow current need not be taken into account	Frequency range, max.	60 Hz
Frequency range, min.	50 Hz	Fuse	No Fuse necessary ≤ 315 A gG, 250 A gG @50 kA I_{sc} , 315 A gG @25 kA I_{sc}
Leakage current at U_n	1 μ A	Low voltage network	Single-phase, TN, TN-S, TT, IT with N, IT without N
Mains voltage	230 V / 400 V	Max. continuous voltage, U_c (AC)	300 V
Max. continuous voltage, U_c (N-PE)	305 V	Number of poles	2
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 II/III
Requirements class, acc. to EN 61643-11	T2, T3	Response time	≤ 25 ns, ≤ 100 ns
SPD type	T2, T3	Short-circuit current rating I_{SCCR}	50 kA
Signalling contact	250 V 1A 1CO	Standards	IEC61643-11, EN61643-11, UL 1449
Temporary surge voltage (over-voltage) - TOV	337 V	Voltage type	AC

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.	2 Nm	Tightening torque, max.	4.5 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.	35 mm ²	Wire connection cross section, finely stranded, min.	4 mm ²
Wire connection cross section, finely stranded, max.	35 mm ²	Conductor cross-section, flexible, AEH (DIN 46228-1), min.	2.5 mm ²
Conductor cross-section, flexible, AEH (DIN 46228-1), max.	35 mm ²	Connection cross-section, stranded, min.	2.5 mm ²
Connection cross-section, stranded, max.	35 mm ²		

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	ECLASS 12.0	27-17-90-90

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
---------------------	---

Creation date February 17, 2023 11:18:58 AM CET

Catalogue status 03.02.2023 / We reserve the right to make technical changes.

3

Data sheet

VPU AC II 1+1 R 300/50

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany

www.weidmueller.com

Technical data

Approvals

Approvals



ROHS	Conform
UL File Number Search	UL Website
Certificate No. (cURus)	E354261

Downloads

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

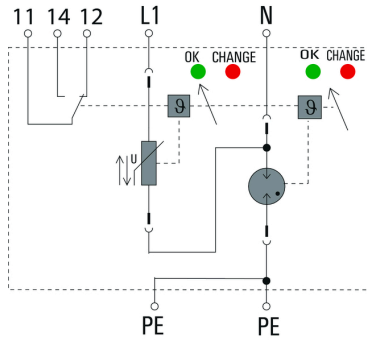
VPU AC II 1+1 R 300/50

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

Drawings

Electric symbol



Schematic circuit diagram

VPU AC II 1+1 R 300/50

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany

www.weidmueller.com

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).	

Blank



ESG is the tried-and-tested marker in MultiCard format for use on many well-known electrical devices. The result is high-quality device marking with a high-contrast appearance.

Various types are available for devices from manufacturers like Siemens, ABB, Beckhoff etc. Advantages at a glance:

- Tags for universal usage, self-adhesive or clip-on tags, depending on type
- For aligned equipment, e.g. circuit breakers, we supply ESG markers for clipping onto tag rails
- Individual laser-quality printing according to specifications

For custom printing: Please send us a file of our labeling software M-Print PRO or M-Print PRO Online (without installation) for your labeling specifications.

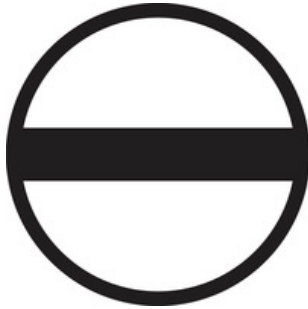
General ordering data

Type	ESG 6/15 K MC NE WS	Version
Order No.	1880100000	ESG, Device markers x 15 mm, PA 66, Colour: white, Self-adhesive
GTIN (EAN)	4032248478781	
Qty.	200 pc(s).	

VPU AC II 1+1 R 300/50

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

Accessories**Slotted screwdriver**

VDE insulated slot-head screwdriver, SDI DIN 7437, ISO 2380/2, drive output acc. to DIN 5264, ISO 2380/1. SoftFinish grip

General ordering data

Type	SDIS 1.0X5.5X125	Version
Order No.	2749850000	Screwdriver, Blade width (B): 5.5 mm, Blade length: 125 mm, Blade thickness (A): 1 mm
GTIN (EAN)	4050118897050	
Qty.	1 pc(s).	

VPU AC II 1+1 R 300/50

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany

www.weidmueller.com

Replacement parts

Spare arrester



In the event of a defective arrester, you can easily reorder this spare arrester, replace the defective arrester and thus restore protection.

General ordering data

Type	VPU AC II 0 300/50	Version	
Order No.	2591010000	Spare arrester, Surge protection, $U_p(L/N-PE) \leq 1.5 \text{ kV}$	
GTIN (EAN)	4050118599923		
Qty.	1 pc(s).		
Type	VPU AC II 0 N-PE 305/65	Version	
Order No.	2591190000	Spare arrester, Surge protection, TT nur für N-PE	
GTIN (EAN)	4050118599749		
Qty.	1 pc(s).		

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 AC
Order No.	2855300000
GTIN (EAN)	4064675533283
Qty.	10 pc(s).