

VPU AC II 1 R 480/50

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
Order No.	2591220000
Type	VPU AC II 1 R 480/50
GTIN (EAN)	4050118599718
Qty.	1 pc(s).
Replacement parts	2591200000 2855300000

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Technical data

Dimensions and weights

Depth	68 mm	Depth (inches)	2.677 inch
Depth including DIN rail	76 mm	Height	111 mm
Height (inches)	4.37 inch	Width	18 mm
Width (inches)	0.709 inch	Net weight	17 g

Temperatures

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

Rated data UL

Ambient temperature (operational), max. 85 °C	Rated Voltage U _N	400 V
MCOV (L-PE)	480 V	SCCR
I _n	20 kA	200 kA
Ambient temperature (operational), min. -40 °C	Category	SPD TYPE 1CA
VPR (L-PE)	Certificate No. (cURus)	E354261
UL Energy Networks	Voltage type	AC
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

Number of poles	1	Protection degree	IP20 in installed state
Colour	orange, black		

Insulation coordination acc. to EN 50178

Pollution severity	2	Surge voltage category	III
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Technical data

Rated data IEC / EN

Combined pulse U_{OC}	6 kV	Discharge current (type III)	3 kA
Discharge current I_{max} (8/20 μ s) wire-PE	50 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_{scrr} , 315 A gG @25 kA I_{scrr}	Integrated back-up fuse	No
Leakage current at U_n	0.3 mA	Low voltage network	Single-phase, TN
Mains voltage	400 V / 690 V	Max. continuous voltage, U_c (AC)	480 V
Number of poles	1	Protection level U_p at I_N (L/N-PE)	≤ 2.3 kV
Rated voltage (AC)	400 V	Requirements category acc. to IEC 61643-11	Type II, Type III
Requirements class, acc. to EN 61643-11	T2, T3	Response time	≤ 25 ns
SPD type	T2	Short-circuit current rating I_{scrr}	50 kA
Signalling contact	250 V 1A 1CO	Standards	IEC 61643-11, EN 61643-11, UL 1449
Temporary surge voltage (over-voltage) - TOV	581 V	Voltage type	AC

Connection data

Stripping length	18 mm	Wire connection method	Screw connection
Type of connection	Screw connection	Stripping length, rated connection	18 mm
Tightening torque, min.	3 Nm	Tightening torque, max.	4.5 Nm
Clamping range, rated connection	16 mm ²	Clamping range, min.	1.5 mm ²
Clamping range, max.	35 mm ²	Wire cross-section, solid, min.	1.5 mm ²
Wire cross-section, solid, max.	16 mm ²	Wire connection cross section, finely stranded, min.	1.5 mm ²
Wire connection cross section, finely stranded, max.	25 mm ²	Connection cross-section, stranded, min.	1.5 mm ²
Connection cross-section, stranded, max.	35 mm ²		

Electrical data

Voltage type	AC
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Guarantee

Time interval	5 years
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Classifications

ETIM 6.0	EC000941	ETIM 7.0	EC000941
ETIM 8.0	EC000941	ETIM 9.0	EC000941
ETIM 10.0	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	27-17-90-90	ECLASS 14.0	27-17-90-90
ECLASS 15.0	27-17-90-90		

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Technical data

Environmental Product Compliance

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

Important note

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

Approvals

Approvals



Approvals MAMID	https://mdcop.weidmueller.com/mediadelivery/rendition/900_319222/-T1z1mm-S800/ https://mdcop.weidmueller.com/mediadelivery/rendition/900_319230/-T1z1mm-S800/ https://mdcop.weidmueller.com/mediadelivery/rendition/900_319263/-T1z1mm-S800/
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ROHS	Conform
UL File Number Search	UL Website
Certificate No. (cURus)	E354261

Downloads

Approval/Certificate/Document of Conformity	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

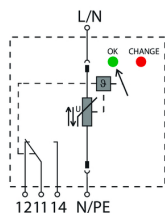
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Drawings

Electric symbol



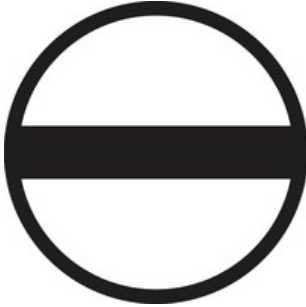
Schematic circuit diagram

VPU AC II 1 R 480/50**Weidmüller Interface GmbH & Co. KG**

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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
GTIN (EAN)	4050118897050	thickness (A): 1 mm
Qty.	1 pc(s).	

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): 1 mm, 80 mm, Blade thickness (A): 1
GTIN (EAN)	4050118897098	
Qty.	1 pc(s).	

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www.weidmueller.com**Accessories****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).	

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www.weidmueller.com**Replacement parts****VPU Series**

Extensive accessories round off the product range

General ordering data

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

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 0 480/50	Version
Order No.	2591200000	Spare arrester, Surge protection
GTIN (EAN)	4050118599732	
Qty.	1 pc(s).	