

VPU AC I 3 R 480/10

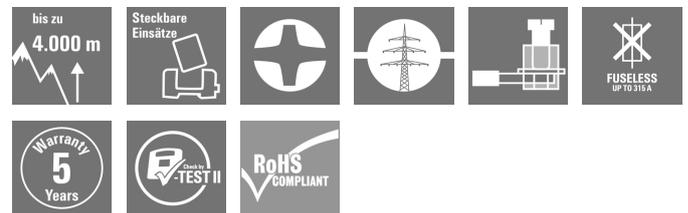
Weidmüller Interface GmbH & Co. KG

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, TN-C
Order No.	2591540000
Type	VPU AC I 3 R 480/10
GTIN (EAN)	4050118599404
Qty.	1 pc(s).
Replacement parts	2591500000 2735070000 2855300000

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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	54 mm	Width (inches)	2.126 inch
Net weight	600 g		

Temperatures

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

Probability of failure

MTBF	15 a
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Rated data UL

Ambient temperature (operational), max. 85 °C		Rated Voltage U_N	400 V
MCOV (L/N-PE)	480 V	SCCR	200 kA
I_n	20 kA	Category	SPD TYPE 1CA
Ambient temperature (operational), min. -40 °C		Certificate No. (cURus)	E3542610000
MODE	all modes	VPR (L-L)	2,500 V
VPR (L-PE)	1,500 V	Voltage type	AC

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	3	Protection degree	IP20 in installed state
Colour	orange, black		

Insulation coordination acc. to EN 50178

Pollution severity	2	Surge voltage category	IV
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Technical data

Rated data IEC / EN

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 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 necessary ≤ 315 A gG, 250 A gG @50 kA I _{sc} cr, 315 A gG @25 kA I _{sc} cr	Integrated back-up fuse	No
Leakage current at U_n	0.6 mA	Lightning test current I_{imp} (10/350 μ s) (L-PE)	10 kA
Low voltage network	TN-C	Mains voltage	400 V / 690 V
Max. continuous voltage, U_c (AC)	480 V	Number of poles	3
Protection level U_p at I_N (L/N-PE)	≤ 2.1 kV	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	Short-circuit current rating I_{SCCR}	50 kA
Signalling contact	250 V 1A 1CO	Standards	IEC 61643-11, EN 61643-11, UL 1449
Temporary surge voltage (over-voltage) - TOV	762 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.	35 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 7.0	EC001457	ETIM 8.0	EC001457
ETIM 9.0	EC001457	ETIM 10.0	EC001457
ECLASS 12.0	27-17-12-04	ECLASS 13.0	27-17-12-04
ECLASS 14.0	27-17-12-04	ECLASS 15.0	27-17-12-04

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Technical data

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)	E3542610000

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).

Downloads

Approval/Certificate/Document of Conformity	EU Konformitätserklärung / EU Declaration of Conformity UK Konformitätserklärung / UK Declaration of Conformity
Engineering Data	CAD data – STEP
User Documentation	Beipackzettel / Instruction sheet
Catalogues	Catalogues in PDF-format

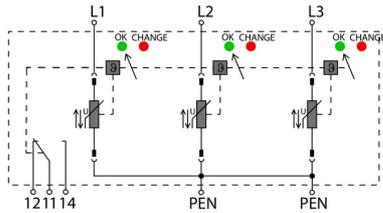
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Drawings

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Electric symbol



Schematic circuit diagram

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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 I 0 480/10	Version
Order No.	2591500000	Spare arrester, Surge protection
GTIN (EAN)	4050118599442	
Qty.	1 pc(s).	

VPU Series



Extensive accessories round off the product range

General ordering data

Type	VPU LOCKING CLIP L
Order No.	2735070000
GTIN (EAN)	4050118816402
Qty.	10 pc(s).
Type	PLUG VPU AC
Order No.	2855300000
GTIN (EAN)	4064675533283
Qty.	10 pc(s).

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Accessories

Crosshead screwdriver Phillips

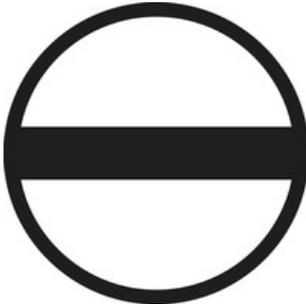


VDE insulated crosshead screwdriver, for Phillips screws, SDIK PH DIN 7438, ISO 8764/2-PH, output to ISO 8764-PH, SoftFinish grip

General ordering data

Type	SDIK PH1 X 80	Version
Order No.	2749890000	Screwdriver, Blade width (B): 1 mm, 80 mm, Blade thickness (A): 1
GTIN (EAN)	4050118897098	
Qty.	1 pc(s).	

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).	

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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).		

VPU Series



Extensive accessories round off the product range

General ordering data

Type	VPU AC EXTENDER
Order No.	3123500000
GTIN (EAN)	4099987270175
Qty.	8 pc(s).