

## VPU AC I 3+1 300/12.5

**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)

### Product image

Abb.ähnlich



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, TN-C-S, TN-S, TT, IT with N, IT without N
Order No.	<a href="#">2591460000</a>
Type	VPU AC I 3+1 300/12.5
GTIN (EAN)	4050118599480
Qty.	1 ST

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## Technical data

## Approvals

Approvals



ROHS	Conform
UL File Number Search	<a href="#">UL Website</a>
Certificate No. (cURus)	E3542610000

## Dimensions and weights

Depth	91 mm	Depth (inches)	3.5827 inch
Height	96.3 mm	Height (inches)	3.7913 inch
Width	72 mm	Width (inches)	2.8346 inch
Net weight	622 g		

## Temperatures

Storage 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)	MCOV (L-PE)	300 V
MCOV (N-PE)	SCCR	150 kA
In	Category	SPD TYPE 1CA
Ambient temperature (operational), min. -40 °C	Certificate No. (cURus)	E3542610000
MODE	VPR (L-L)	1800 V
VPR (L-N)	VPR (L-PE)	1000 V
Voltage type		AC

## General data

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

## Insulation coordination acc. to EN 50178

Surge voltage category	III	Pollution severity	2
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## Rated data IEC / EN

Number of poles	4	Leakage current at Un	1 µA
Signalling contact	No	Rated voltage (AC)	230 V

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### Technical data

Low voltage network	TN-C-S, TN-S, 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	No Fuse necessary ≤315 A gG, 250 A gG @50 kA I <sub>sc</sub> cr, 315 A gG @25 kA I <sub>sc</sub> cr	Response time	≤ 25 ns, ≤ 100 ns
Frequency range, max.	60 Hz	Frequency range, min.	50 Hz
Standards	IEC61643-11, EN61643-11, UL 1449	Lightning test current I <sub>imp</sub> (10/350 μs) (L-PE)	12.5 kA
Lightning test current, I <sub>imp</sub> (10/350 μs) (N-PE)	50 kA	Requirements class, acc. to EN 61643-11	T1, T2
Requirements category acc. to IEC 61643-11	Type I, Type II	Max. continuous voltage, U <sub>c</sub> (AC)	300 V
Max. continuous voltage, U <sub>c</sub> (N-PE)	305 V	Mains voltage	230 V / 400 V
Discharge current I <sub>max</sub> (8/20 μs) N-PE	100 kA	Discharge current I <sub>n</sub> (8/20 μs) N-PE	50 kA
Energy coordination (≤10 m)	Type I, Type II, Type III	Discharge current I <sub>n</sub> (8/20 μs) wire-PE	20 kA
Discharge current I <sub>max</sub> (8/20 μs) wire-PE	50 kA	Protection level Up at IN (L/N-PE)	≤ 1.5 kV
Short-circuit current rating ISCCR	50 kA	Follow-on current extinguishing capability I <sub>fi</sub>	Not available due for technical reasons
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.	2 Nm	Tightening torque, max.	4.5 Nm
Clamping range, rated connection	16 mm <sup>2</sup>	Clamping range, min.	4 mm <sup>2</sup>
Clamping range, max.	35 mm <sup>2</sup>	Wire cross-section, solid, min.	1.5 mm <sup>2</sup>
Wire cross-section, solid, max.	35 mm <sup>2</sup>	Wire connection cross section, finely stranded, min.	1.5 mm <sup>2</sup>
Wire connection cross section, finely stranded, max.	25 mm <sup>2</sup>	Connection cross-section, stranded, min.	1.5 mm <sup>2</sup>
Connection cross-section, stranded, max.	35 mm <sup>2</sup>		

### Electrical data

Voltage type	AC
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### General data

Number of poles	4	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
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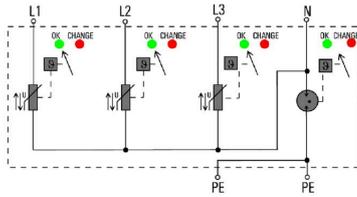
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**Technical data**

**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

**Electric symbol**



Schematic circuit diagram

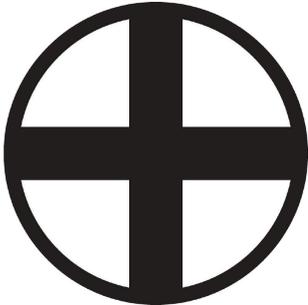
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## Accessories

## 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.	<a href="#">2749890000</a>	Screwdriver, Blade width (B): 1 mm, 80 mm, Blade thickness (A): 1	
GTIN (EAN)	4050118897098		
Qty.	1 ST		

## Slotted screwdriver

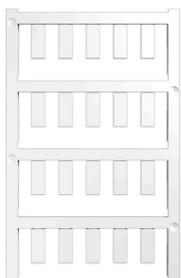


VDE insulated slot-head screwdriver, SDI DIN 7437, ISO 2380/2, drive output acc. to DIN 5264, ISO 2380/1. SoftFinish grip

## General ordering data

Type	SDIS 1.0X5.5X125	Version	
Order No.	<a href="#">2749850000</a>	Screwdriver, Blade width (B): 5.5 mm, Blade length: 125 mm, Blade thickness (A): 1 mm	
GTIN (EAN)	4050118897050		
Qty.	1 ST		

## 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.

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## Accessories

### General ordering data

Type	ESG 6/15 K MC NE WS	Version	
Order No.	<a href="#">1880100000</a>	ESG, Device markers x 15 mm, PA 66, Colour: white, Self-adhesive	
GTIN (EAN)	4032248478781		
Qty.	200 ST		

### VPU Series



Extensive accessories round off the product range

### General ordering data

Type	VPU AC EXTENDER	Version	
Order No.	<a href="#">3123500000</a>		
GTIN (EAN)	4099987270175		
Qty.	8 ST		

### 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 O 300/12.5	Version	
Order No.	<a href="#">2591370000</a>	Spare arrester, Surge protection	
GTIN (EAN)	4050118599565		
Qty.	1 ST		
Type	VPU AC I O N-PE 305/50	Version	
Order No.	<a href="#">2591590000</a>	Spare arrester, Surge protection	
GTIN (EAN)	4050118599350		
Qty.	1 ST		

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## Accessories

### VPU Series



Extensive accessories round off the product range

### General ordering data

Type	VPU LOCKING CLIP L	Version	
Order No.	<a href="#">2735070000</a>		
GTIN (EAN)	4050118816402		
Qty.	10 ST		