

## VPU AC II US 1 R 120/50

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

www.weidmueller.com



Picture similar

- compact SPD to install in application by NFPA 79
- no additional overcurrent protection devices needed
- short circuit current rating (SCCR) up to 200 kA
- tested according to IEC/EN 61643-11 and UL 1449 4.Ed

### General ordering data

Version	Surge voltage arrester, Low voltage, Surge protection, with remote contact, Single-phase
Order No.	<a href="#">2730460000</a>
Type	VPU AC II US 1 R 120/50
GTIN (EAN)	4050118807646
Qty.	1 items

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## Technical data

## Approvals

Approvals



ROHS	Conform
UL File Number Search	<a href="#">UL Website</a>
Certificate no. (cULus)	E354261

## Dimensions and weights

Depth	68 mm	Depth (inches)	2.6772 inch
Depth including DIN rail	76 mm	Height	111 mm
Height (inches)	4.3701 inch	Width	18 mm
Width (inches)	0.7087 inch	Mounting dimension - height	75 mm
Net weight	132 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	120 V
MCOV (L-PE)	150 V	SCCR	200 kA
In	20 kA	Category	SPD TYPE 1
Connection cross-section AWG, min.	AWG 14	Connection cross-section AWG, max.	AWG 6
Ambient temperature (operational), min.	-40 °C	MODE	all modes
VPR (L-PE)	600 V	Voltage type	AC
UL Energy Networks	Split-Phase		

## Connection data, remote alert

Cross-section for connected wire, solid core, min.	0.25 mm <sup>2</sup>	Stripping length	12 mm
Cross-section for connected wire, solid core, max. (AWG)	AWG 10	Connection type	PUSH IN
Cross-section for connected wire, solid core, max.	1.5 mm <sup>2</sup>	Cross-section for connected wire, solid core, min. (AWG)	AWG 30

## General data

Optical function display	green = OK; red = arrester is defective - replace	Segment	Power distribution
Version	Surge protection, with remote contact	Design	Installation housing; 1TE, Insta IP 20
UL 94 flammability rating	V-0	Colour	orange, black
Protection degree	IP20 in installed state	Mounting rail	TS 35
Operating altitude	≤ 4000 m		

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## Technical data

### Insulation coordination acc. to EN 50178

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

Number of poles	1	Leakage current at $U_n$	0.3 mA
Signalling contact	250 V 1A 1CO	Rated voltage (AC)	120 V
Low voltage network	Single-phase	Voltage type	AC
Temporary surge voltage (over-voltage) - TOV	229 V	Fuse protection	No Fuse necessary $\leq 315$ A gG, 250 A gG @50 kA Iscrr, 315 A gG @25 kA Iscrr
Response time / fallback time	$\leq 25$ ns	Frequency range, max.	60 Hz
Frequency range, min.	50 Hz	Standards	IEC 61643-11, EN 61643-11, UL 1449, NFPA 79
Requirements class, acc. to EN 61643-11	T2, T3	Requirements category acc. to IEC 61643-11	Type II
Max. continuous voltage, $U_c$ (AC)	150 V	Discharge current $I_{max}$ (8/20 $\mu$ s) N-PE	50 kA
Discharge current $I_n$ (8/20 $\mu$ s) N-PE	20 kA	Energy coordination ( $\leq 10$ m)	Type II, Type III
Discharge current $I_n$ (8/20 $\mu$ s) wire-PE	20 kA	Discharge current $I_{max}$ (8/20 $\mu$ s) wire-PE	50 kA
SPD type	T2	Protection level $U_p$ at IN (L/N-PE)	$\leq 1.25$ kV
Short-circuit current rating ISCCR	50 kA	Follow-on current extinguishing capability I <sub>fi</sub>	Follow current need not be taken into account
Integrated back-up fuse	No		

### 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 <sup>2</sup>	Clamping range, min.	1.5 mm <sup>2</sup>
Clamping range, max.	35 mm <sup>2</sup>	Wire connection cross section AWG, min.	AWG 16
Wire connection cross section AWG, max.	AWG 2	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>	Conductor cross-section, flexible, AEH (DIN 46228-1), min.	2.5 mm <sup>2</sup>
Conductor cross-section, flexible, AEH (DIN 46228-1), max.	35 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	1	Protection degree	IP20 in installed state
Colour	orange, black		

### Ratings IECEx/ATEX/cUL

Certificate no. (cULus)	E354261
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## Technical data

### Guarantee

Time interval	5 years
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### 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		

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



- compact SPD to install in application by NFPA 79
- no additional overcurrent protection devices needed
- short circuit current rating (SCCR) up to 200 kA
- tested according to IEC/EN 61643-11 and UL 1449 4.Ed

### General ordering data

Type	VPU AC II US 0 120/50	Version	
Order No.	<a href="#">2730440000</a>	Spare arrester, Surge protection, TN, Single-phase	
GTIN (EAN)	4050118807660		
Qty.	1 ST		

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## Accessories

### VPU Series



Extensive accessories round off the product range

### General ordering data

Type	VPU LOCKING CLIP S	Version	
Order No.	<a href="#">2735080000</a>		
GTIN (EAN)	4050118826050		
Qty.	10 ST		
Type	PLUG VPU AC	Version	
Order No.	<a href="#">2855300000</a>		
GTIN (EAN)	4064675533283		
Qty.	10 ST		