

## VPU AC I 3 R 480/10

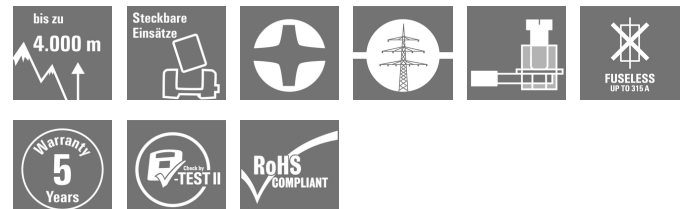
**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

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Germany

[www.weidmueller.com](http://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.	<a href="#">2591540000</a>
Type	VPU AC I 3 R 480/10
GTIN (EAN)	4050118599404
Qty.	1 pc(s).

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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 Years
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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)	E354261
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 <sup>2</sup>
Cross-section for connected wire, solid core, min.	0.14 mm <sup>2</sup>	Stripping length	8 mm

### General data

Colour	orange, black	Design	Installation housing; 3TE, 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	IV
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## Technical data

## Rated data IEC / EN

Discharge current $I_{max}$ (8/20 $\mu$ s) wire-PE	50 kA	Discharge current $I_n$ (8/20 $\mu$ s) wire-PE	20 kA
Energy coordination ( $\leq 10$ 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 $\leq 315$ A gG, 250 A gG @50 kA $I_{sc}$ , 315 A gG @25 kA $I_{sc}$	Leakage current at $U_n$	0.6 mA
Lightning test current $I_{imp}$ (10/350 $\mu$ s) (L-PE)	10 kA	Low voltage network	TN-C
Max. continuous voltage, $U_c$ (AC)	480 V	Number of poles	3
Protection level $U_p$ at $I_N$ (L/N-PE)	$\leq 2.1$ 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	$\leq 25$ ns	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	762 V	Voltage type	AC

## Connection data

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.	2.5 mm <sup>2</sup>	Wire cross-section, solid, max.	35 mm <sup>2</sup>
Wire connection cross section, finely stranded, min.	2.5 mm <sup>2</sup>	Wire connection cross section, finely stranded, max.	35 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.	2.5 mm <sup>2</sup>	Connection cross-section, stranded, max.	35 mm <sup>2</sup>

## Ratings IECEx/ATEX/cUL

Certificate no. (cULus) E354261

## 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		

## Important note

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

**Data sheet****VPU AC I 3 R 480/10****Weidmüller Interface GmbH & Co. KG**  
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**Technical data****Approvals**

Approvals

ROHS Conform  
UL File Number Search E354261**Downloads**

Approval/Certificate/Document of Conformity	<a href="#">EAC VPU SERIES</a> <a href="#">EU_Konformitätserklärung / EU_Declaration_of_Conformity</a>
Engineering Data	<a href="#">STEP</a>
User Documentation	<a href="#">Beipackzettel / Instruction sheet</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>

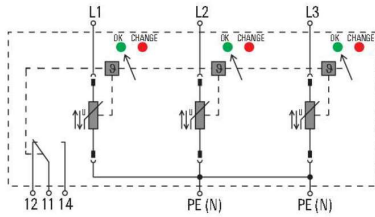
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Drawings

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Electric symbol



Schematic circuit diagram