

## 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)



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 pc(s).
Replacement parts	<a href="#">2591370000</a> <a href="#">2591590000</a>

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## Technical data

### Dimensions and weights

Depth	91 mm	Depth (inches)	3.583 inch
Height	96.3 mm	Height (inches)	3.791 inch
Width	72 mm	Width (inches)	2.835 inch
Net weight	622 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 $U_N$	240 V
VPR (N-PE)	1,200 V	MCOV (L-PE)	300 V
MCOV (N-PE)	305 V	SCCR	150 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)	1,800 V
VPR (L-N)	900 V	VPR (L-PE)	1,000 V
Voltage type	AC		

### General data

Colour	black, orange, blue	Design	Installation housing; 4TE, 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		

### Insulation coordination acc. to EN 50178

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

Discharge current $I_{max}$ (8/20 $\mu$ s) N-PE	100 kA	Discharge current $I_{max}$ (8/20 $\mu$ s) wire-PE	50 kA
Discharge current $I_n$ (8/20 $\mu$ s) N-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 Iscrr, 315 A gG @25 kA Iscrr	Leakage current at $U_n$	1 $\mu$ A
Lightning test current $I_{imp}$ (10/350 $\mu$ s) (L-PE)	12.5 kA	Lightning test current, $I_{imp}$ (10/350 $\mu$ s) (N-PE)	50 kA
Low voltage network	TN-C-S, TN-S, TT, IT with N, IT without N	Mains voltage	230 V / 400 V
Max. continuous voltage, $U_c$ (AC)	300 V	Max. continuous voltage, $U_c$ (N-PE)	305 V
Number of poles	4	Protection level $U_p$ at $I_N$ (L/N-PE)	$\leq 1.5$ kV
Protection level $U_p$ at $I_N$ (N-PE)	$\leq 1.5$ kV	Rated voltage (AC)	230 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, $\leq 100$ ns	Short-circuit current rating $I_{SCCR}$	50 kA
Signalling contact	No	Standards	IEC61643-11, EN61643-11, UL 1449
Temporary surge voltage (over-voltage) - TOV	337 V	Voltage type	AC

### 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>		

### 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
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		

### Environmental Product Compliance

REACH SVHC	/
RoHS Compliance Status	Compliant without exemption

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Catalogue status 23.07.2024 / We reserve the right to make technical changes.

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**Technical data****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

**Approvals**

Approvals



ROHS	Conform
UL File Number Search	UL Website
Certificate No. (cURus)	E354261

**Downloads**

Approval/Certificate/Document of Conformity	<a href="#">EU Konformitätserklärung / EU Declaration of Conformity</a>
Engineering Data	<a href="#">CAD data – STEP</a>
Tender specification	<a href="#">Ausschreibungstext DE</a> <a href="#">Tenderspecification EN</a>
User Documentation	<a href="#">Beipackzettel / Instruction sheet</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>

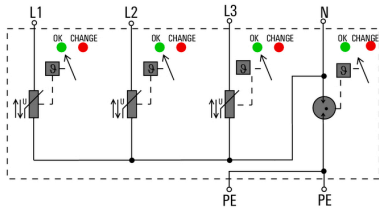
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Drawings

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Electric symbol



Schematic circuit diagram