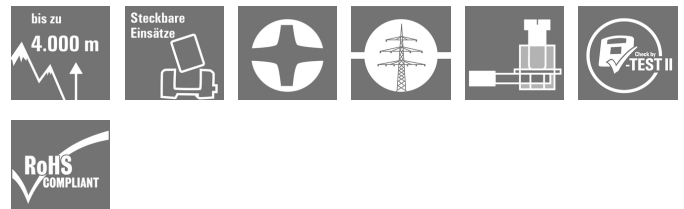


## VPU series

### VPU AC II 3+1 R 300/50

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 14-0  
 Fax: +49 5231 14-292083  
 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 V0675-6-12 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

Type	VPU AC II 3+1 R 300/50
Order No.	<a href="#">2591090000</a>
Version	Surge voltage arrester, Low voltage, Surge protection, with remote contact, TN-C-S, TN-S, TT, $U_p(L/N-PE) \leq 1.5 \text{ kV}$
GTIN (EAN)	4050118599848
Qty.	1 pc(s).

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**Technical data**
**Dimensions and weights**

Width	72 mm	Width (inches)	2.835 inch
Height	95 mm	Height (inches)	3.74 inch
Depth	68 mm	Depth (inches)	2.677 inch
Depth including DIN rail	76 mm	Net weight	488 g

**Temperatures**

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

**Rated data UL**

Voltage type	AC	Certificate No. (cURus)	E354261
Rated Voltage $U_N$	240 V	VPR (L/N-PE)	900 V
VPR (N-PE)	1,000 V	MCOV (L/N-PE)	600 Vac
MCOV (N-PE)	305 V	SCCR	150 kA
$I_n$	20 kA	Category	SPD TYPE 1CA

**Connection data, remote alert**

Connection type	PUSH IN	Stripping length	8 mm
Cross-section for connected wire, solid core, min.	0.14 mm <sup>2</sup>	Cross-section for connected wire, solid core, max.	1.5 mm <sup>2</sup>

**General data**

Altitude	≤ 4000 m	Colour	Black, orange, blue
Design	Installation housing; 4TE, Insta IP 20	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	III
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## Technical data

### Rated data IEC / EN

Discharge current $I_{\max}$ (8/20 $\mu$ s) wire-PE	50 kA	Discharge current $I_{\max}$ (8/20 $\mu$ s) N-PE	65 kA
Discharge current $I_n$ (8/20 $\mu$ s) N-PE	40 kA	Discharge current $I_n$ (8/20 $\mu$ s) wire-PE	20 kA
Energy coordination ( $\leq 10$ m)	Type II, Type III	Follow-on current extinguishing capability $I_{fi}$	Follow current need not be taken into account
Frequency range, max.	60 Hz	Frequency range, min.	50 Hz
Fuse	250 gG @50 kA $I_{sccr}$ , 315 gG @25 kA $I_{sccr}$	Leakage current at $U_n$	1 $\mu$ A
Low voltage network	TN-C-S, TN-S, TT	Max. continuous voltage, $U_c$ (AC)	300 V
Max. continuous voltage, $U_c$ (N-PE)	305 V	Number of poles	4
Protection level $U_p$ (typ.)	$\leq 1.5$ 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 II
Requirements class, acc. to EN 61643-11	T2	Response time	$\leq 25$ ns, $\leq 100$ ns
SPD type	T2	Short-circuit current rating $I_{sccr}$	50 kA
Signalling contact	250 V 1A 1CO	Standards	IEC61643-11, EN61643-11
Temporary surge voltage (over-voltage) - TOV	337 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.	4 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>

### Classifications

ETIM 6.0	EC000941	ETIM 7.0	EC000941
eClass 9.0	27-13-08-05	eClass 9.1	27-13-08-05
eClass 10.0	27-13-08-05	UNSPSC	30-21-19-21

### Approvals

Approvals



ROHS

Conform

### Downloads

Approval/Certificate/Document of Conformity	<a href="#">EAC VPU SERIES Declaration of Conformity</a>
Engineering Data	<a href="#">STEP</a>
User Documentation	<a href="#">Instruction sheet</a>

Creation date December 11, 2019 9:42:56 AM CET

Catalogue status 06.12.2019 / We reserve the right to make technical changes.

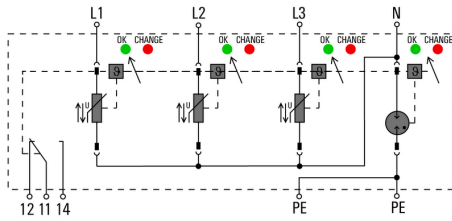
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**Drawings**

**Electric symbol**



Schematic circuit diagram