

VPU AC I 3+1 R 300/12.5 LH
Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26
D-32758 Detmold
Germany

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, TN-S, TT, IT with N, IT without N
Order No.	2983590000
Type	VPU AC I 3+1 R 300/12.5 LH
GTIN (EAN)	4099986839717
Qty.	1 items

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Technical data

Approvals

Approvals



ROHS	Conform
UL File Number Search	UL Website
Certificate No. (cURus)	E3542610000

Dimensions and weights

Depth	70 mm	Depth (inches)	2.7559 inch
Height	105 mm	Height (inches)	4.1338 inch
Width	72 mm	Width (inches)	2.8346 inch
Net weight	653.5 g		

Temperatures

Storage temperature	-40 °C...85 °C	Ambient temperature	...85 °C
Operating temperature	-40 °C...85 °C	Humidity at operating temperature	5 - 95% rel. humidity
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 (UL), max.	85 °C	Rated Voltage UN	240 V
MCOV (L-PE)	600 V	MCOV (N-PE)	305 V
In	20 kA	Category	SPD TYPE 4CA
Ambient temperature operational (UL), min.	-40 °C	Certificate No. (cURus)	E3542610000
MODE	L-N	Measured limiting voltage	1200 V
Voltage type	AC	UL Energy Networks	3-phase WYE

Connection data, remote alert

Cross-section for connected wire, solid core (remote alert), min.	0.14 mm ²	Stripping length	8 mm
Connection type	PUSH IN	Cross-section for connected wire, solid core (remote alert), max.	1.5 mm ²

General data

Optical function display	green = OK; red = arrester is defective - replace	Version	Surge protection, with remote contact
Design	Installation housing; 4TE, 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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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 (nominal voltage)	6 µA
Signalling contact	250 V 1A 1CO	Rated voltage (AC)	230 V
Low voltage network	TN-C, TN-S, TT, IT with N, IT without N	Protection level Up at IN (N-PE)	≤ 1.5 kV
Protection level, UP wire - wire	1500 V	Protection level, UP wire - PE	1500 V
Voltage type	AC	Temporary surge voltage (overvoltage)	337 V
Fuse protection	No Fuse necessary ≤ 160 A gG	Response time / fallback time	≤ 25 ns
Frequency range, max.	60 Hz	Frequency range, min.	50 Hz
Standards	IEC 61643-11, EN 61643-11, UL 1449	Lightning test current limp (10/350 µs) (L-PE)	12.5 kA
Lightning test current, limp (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, Uc (AC)	305 V
Mains voltage	230 V / 400 V	Discharge current I _{max} (8/20 µs) N-PE	100 kA
Discharge current I _n (8/20 µs) N-PE	50 kA	Energy coordination (≤ 10 m)	Type I, Type II, Type III
Discharge current I _n (8/20 µs) wire-PE	20 kA	Discharge current I _{max} (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 _{fi}	Not available due for technical reasons	Integrated back-up fuse	No

Connection data

Stripping length	18 mm	Wire connection method	Screw connection
Type of connection	Screw connection	Tightening torque, min.	3 Nm
Tightening torque, max.	4.5 Nm	Clamping range, rated connection	16 mm ²
Clamping range, min.	1.5 mm ²	Clamping range, max.	35 mm ²
Wire cross-section, solid, min.	1.5 mm ²	Wire cross-section, solid, max.	35 mm ²
Wire connection cross section, finely stranded, min.	1.5 mm ²	Wire connection cross-section, finely stranded, max.	25 mm ²
Connection cross-section, stranded, min.	1.5 mm ²	Connection cross-section, stranded, max.	35 mm ²

Electrical data

Voltage type	AC
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General data

Number of poles	4	Protection degree	IP20 in installed state
Colour	orange, black		

Guarantee

Time interval	5 years
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Important note

Product information	For use in DC applications, please use the fuse of SIBA Type NH2XL aR/aSF DC 1500 V
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ETIM 8.0	EC001457	ETIM 9.0	EC001457
ETIM 10.0	EC001457	ECLASS 14.0	27-17-12-04
ECLASS 15.0	27-17-12-04		

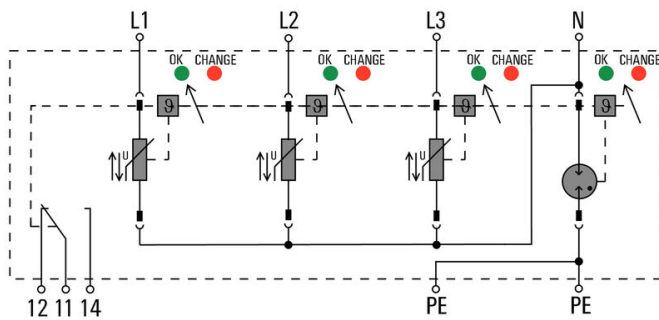
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Drawings

Electric symbol



Schematic circuit diagram