

VPU AC I 1 N-PE 305/50

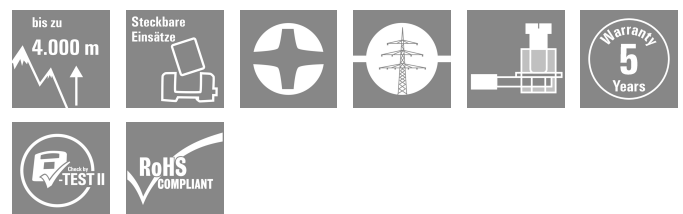
Weidmüller Interface GmbH & Co. KG

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, Single-phase, TN, TT nur für N-PE
Order No.	2591570000
Type	VPU AC I 1 N-PE 305/50
GTIN (EAN)	4050118599374
Qty.	1 items
Delivery status	This article will no longer be available in the future.
Available until	2026-06-01T00:00:00+02:00
Alternative product	VPU AC I 1 N-PE 305/50 LH

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Technical data

Approvals

Approvals



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

Dimensions and weights

Depth	91 mm	Depth (inches)	3.5827 inch
Height	90 mm	Height (inches)	3.5433 inch
Width	18 mm	Width (inches)	0.7087 inch
Net weight	143 g		

Temperatures

Storage temperature	-40 °C...85 °C	Ambient temperature	...85 °C
Operating temperature	-40 °C...85 °C	Humidity	5 - 95% rel. humidity

Probability of failure

MTBF	15 a
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Environmental Product Compliance

RoHS Compliance Status	Compliant without exemption
REACH SVHC	No SVHC above 0.1 wt%

Rated data UL

Rated Voltage UN	0 V	VPR (N-PE)	1200 V
MCOV (N-PE)	305 V	In	20 kA
Category	SPD TYPE 1CA	Certificate No. (cURus)	E3542610000
Voltage type	AC		

General data

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

Insulation coordination acc. to EN 50178

Surge voltage category	IV	Pollution severity	2
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Rated data IEC / EN

Number of poles	1	Leakage current at Un	1 µA
Signalling contact	No	Rated voltage (AC)	230 V

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Technical data

Low voltage network	Single-phase, TN, TT nur für N-PE	Protection level Up at IN (N-PE)	≤ 1.5 kV
Voltage type	AC	Temporary surge voltage (over-voltage) - TOV	1200 V
Response time / fallback time	≤ 100 ns	Frequency range, max.	60 Hz
Frequency range, min.	50 Hz	Standards	IEC 61643-11, EN 61643-11, UL 1449
Lightning test current, Iimp (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, U _c (N-PE)	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
Rated load current I _L	100 A	Short-circuit current rating ISCCR	0.1 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	Stripping length, rated connection	18 mm
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	Conductor cross-section, flexible, AEH (DIN 46228-1), min.	2.5 mm ²
Conductor cross-section, flexible, AEH (DIN 46228-1), max.	35 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	1	Protection degree	IP20 in installed state
Colour	blue, black		

Guarantee

Time interval	5 years
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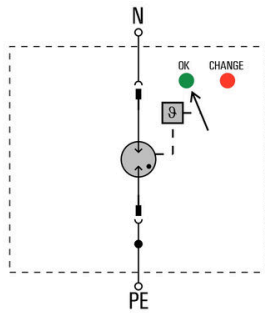
Important note

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).
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Classifications

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		

Electric symbol



Schematic circuit diagram