

**VPU I 3+1 R 280V/12,5KA****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)**Type I/II lightning arrester for use downstream of the electrical meter**

- Version suitable for use upstream of the electrical meter
- Suitable for protective zones III and IV (LPL III/IV)
- Can also be used as Type II surge protection
- Tested according to IEC 61643-11 for Type I and II surge protection
- Pluggable arrester

**General ordering data**

Version	Surge voltage arrester, Low voltage, with remote contact, TN-C-S, TN-S, IT with N, IT without N, TT
Order No.	<a href="#">1352240000</a>
Type	VPU I 3+1 R 280V/12,5KA
GTIN (EAN)	4050118158021
Qty.	1 pc(s).
Replacement parts	<a href="#">1352120000</a> <a href="#">1351930000</a> <a href="#">1402570000</a>

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## Technical data

## Dimensions and weights

Depth	69 mm	Depth (inches)	2.717 inch
Height	106 mm	Height (inches)	4.173 inch
Width	71.2 mm	Width (inches)	2.803 inch
Mounting dimension - height	75 mm	Net weight	623 g

## Temperatures

Storage temperature	-40 °C...80 °C	Operating temperature	-40 °C...70 °C
Humidity	5 - 95% rel. humidity		

## 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	black, orange, blue	Design	Installation housing; 4TE, Insta IP 20
Optical function display	green = OK; red = arrester is defective - replace	Protection degree	IP20
Rail	TS 35	Segment	Power distribution
UL 94 flammability rating	V-0	Version	with remote contact

## Insulation coordination acc. to EN 50178

Pollution severity	2	Surge voltage category	IV
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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	25 kA
Energy coordination ( $\leq 10$ m)	Type I, Type II, Type III	Follow-on current extinguishing capability $I_{fi}$	Not available due to technical reasons
Fuse	250 A gL (if back up fuse > 250 A)	Leakage current at $U_n$	100 $\mu$ A
Lightning test current $I_{\text{imp}}$ (10/350 $\mu$ s) (L-PE)	12.5 kA	Lightning test current, $I_{\text{imp}}$ (10/350 $\mu$ s) (N-PE)	50 kA
Low voltage network	TN-C-S, TN-S, IT with N, IT without N, TT	Mains voltage	230 V / 400 V
Max. continuous voltage, $U_c$ (AC)	280 V	Max. continuous voltage, $U_c$ (N-PE)	260 V
Number of poles	4	Protection level $U_p$ at $I_N$ (L/N-PE)	$\leq 1.4$ 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 $I_{\text{SCCR}}$	25 kA
Signalling contact	250 V 1A 1CO	Standards	IEC61643-11, EN61643-11
Temporary surge voltage (over-voltage) - TOV	438 V	Voltage type	AC

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## Connection data

Stripping length	15 mm	Type of connection	Screw connection
Stripping length, rated connection	15 mm	Tightening torque, min.	2 Nm
Tightening torque, max.	3 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.	16 mm <sup>2</sup>
Wire connection cross section, finely stranded, min.	2.5 mm <sup>2</sup>	Wire connection cross section, finely stranded, max.	25 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.	50 mm <sup>2</sup>
Connection cross-section, stranded, min.	2.5 mm <sup>2</sup>	Connection cross-section, stranded, max.	50 mm <sup>2</sup>

## 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

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[www.weidmueller.com](http://www.weidmueller.com)**Technical data****Tender specification sheets**

## Long specification

Multi-pin lightning arrester according to the requirements of Class I in accordance with IEC 61643-11, EN61643-11:2013. On interface transition from 0 to 1 (in accordance with 1312-1), the arrester, consisting of V0 material, serves as lightning protection providing equipotential bonding and is used in applications in accordance with IEC 61643-12. The use of a non-blow-out sparkover gap, in combination with a high-power varistor, satisfies the inspection requirements for Class I surge protection systems in accordance with the VDEW (Association of German Power Stations) directive. The arrester is installed in the vicinity of the power supply for the equipment that needs protection, in a standard installation/electrical distribution enclosure. The VPU I 3+1 R 280 V/12.5 kA is used in the TN-C and TN-CS mains network. With thermal separation device on the varistor. If protection is no longer available, the colour in the display window changes from green to red. The functional state is also displayed by a voltage-free signalling contact (changeover). Rated voltage: 230 VAC lightning test current (10/350 µs): 12.5 kA protection level with lightning test current < 1.4 kV 25 kA short-circuit withstand rating with max. back-up fuse of 250 A gl telecommunication output: contact: 250 V/0.5 A 48 VDC/0.1 A, type: Weidmüller VPU I 3+1 R 280 V/12.5 kA, Order No. 1352240000 or equivalent

## Short specification

Class I arrester for LPL III/IV with 12.5 kA suitable for 230/400 V TN-CS, TT mains systems. Protection level < 1.4 kV. With remote alert Type: Weidmüller VPU I 3+1 R 280 V/12.5 kA Order no. 1352240000 or equivalent

**Environmental Product Compliance**

REACH SVHC

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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).

## Approvals

## Approvals



ROHS

Conform

## Downloads

Approval/Certificate/Document of Conformity

[EU\\_Konformitätserklärung / EU\\_Declaration\\_of\\_Conformity](#)

Engineering Data

[CAD data – STEP](#)

User Documentation

[Beipackzettel / Instruction sheet](#)

Catalogues

[Catalogues in PDF-format](#)

Brochures

## VPU I 3+1 R 280V/12,5KA

**Weidmüller Interface GmbH & Co. KG**

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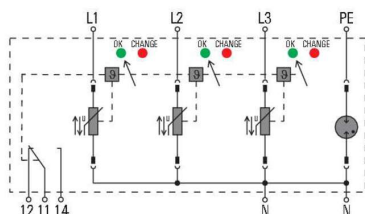
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# Drawings

## Electric symbol



Schematic circuit diagram

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[www.weidmueller.com](http://www.weidmueller.com)**Accessories****Crosshead screwdriver Phillips**

VDE insulated crosshead screwdriver, for Phillips screws, SDIK PH DIN 7438, ISO 8764/2-PH, output to ISO 8764-PH, SoftFinish grip

**General ordering data**

Type	SDIK PH1 X 80	Version
Order No.	<a href="#">2749890000</a>	Screwdriver, Blade width (B): 1 mm, 80 mm, Blade thickness (A): 1
GTIN (EAN)	4050118897098	
Qty.	1 pc(s).	

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## Replacement parts

## N-PE 260 V



## Spare arrester Type I

Weidmüller VPU I surge protection products protect low-voltage consumer installations and electronic devices against overvoltages that can occur as a result of atmospheric discharges (thunderstorms) or switching operations (transients). The VPU I series meets the Type I and Type II requirements acc. to IEC 61643-11 and the Type 1 and Type 2 requirements acc. to EN 61643-11. The spare arresters are coded and can only be inserted into suitable bases.

## General ordering data

Type	VPU I 0 N-PE 260V/50KA	Version
Order No.	<a href="#">1351930000</a>	Surge voltage arrester, Low voltage, Accessories, Spare arrester, TT
GTIN (EAN)	4050118158274	nur für N-PE
Qty.	1 pc(s).	

## L-PEN 280 V



## Spare arrester Type I

Weidmüller VPU I surge protection products protect low-voltage consumer installations and electronic devices against overvoltages that can occur as a result of atmospheric discharges (thunderstorms) or switching operations (transients). The VPU I series meets the Type I and Type II requirements acc. to IEC 61643-11 and the Type 1 and Type 2 requirements acc. to EN 61643-11. The spare arresters are coded and can only be inserted into suitable bases.

## General ordering data

Type	VPU I 0 280V/12,5KA	Version
Order No.	<a href="#">1352120000</a>	Surge voltage arrester, Low voltage, Accessories, Spare arrester
GTIN (EAN)	4050118158120	
Qty.	1 pc(s).	



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[www.weidmueller.com](http://www.weidmueller.com)**Replacement parts****VPU Series**

Extensive accessories round off the product range

**General ordering data**

Type	PLUG VPU	Version
Order No.	<a href="#">1402570000</a>	VPU series, Accessories
GTIN (EAN)	4050118204360	
Qty.	10 pc(s).	