

## VPU I 3+1 LCF 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/ upstream of the electrical meter

- No-leakage-current version suitable for use upstream of the electrical meter
- Suitable for protection classes III and IV (LPLIII/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, without telecomm. contact, Leakage-current-free, TN-C-S, TN-S, IT with N, IT without N, TT
Order No.	<a href="#">1352020000</a>
Type	VPU I 3+1 LCF 280V/12,5KA
GTIN (EAN)	4050118158205
Qty.	1 pc(s).
Replacement parts	<a href="#">1352000000</a> <a href="#">1351930000</a>

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Catalogue status 20.05.2022 / We reserve the right to make technical changes.

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## Technical data

### Dimensions and weights

Depth	69 mm	Depth (inches)	2.717 inch
Height	94 mm	Height (inches)	3.701 inch
Width	71.2 mm	Width (inches)	2.803 inch
Mounting dimension - height	75 mm	Net weight	641 g

### Temperatures

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

### 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
Suitable for	Count-in installation (leakage current free)	UL 94 flammability rating	V-0
Version	without telecomm. contact, Leakage-current-free		

### 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) wire-PE	50 kA	Discharge current $I_{max}$ (8/20 $\mu$ s) N-PE	100 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
Fuse	250 A gL (if back up fuse > 250 A)	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, 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)	$\leq 1.45$ 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 $I_{SCCR}$	25 kA
Signalling contact	No	Standards	IEC61643-11, EN61643-11
Suitable for	Count-in installation (leakage current free)	Temporary surge voltage (over-voltage) - TOV	438 V
Voltage type	AC		

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**Technical data**
**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	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

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# 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 IEC 1312-1), the arrester, made from 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 LCF 280 V/12.5 kA is used in the TN-S and TT 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. Rated voltage: 230 VAC lightning test current (10/350 µs): 12.5 kA protection level with lightning test current < 1.45 kV 25 kA short-circuit withstand rating with max. back-up fuse of 250 A gl Type: Weidmüller VPU I 3+1 LCF 280 V/12.5 kA Order No. 1352020000 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 < 1.45 kV. Type: Weidmüller VPU I 3+1 LCF 280 V/12.5 kA Order no. 1352030000 or equivalent

## 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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### Approvals

Approvals



ROHS

Conform

### Downloads

Approval/Certificate/Document of Conformity	<a href="#">EAC VPU SERIES</a> <a href="#">EU_Konformitätserklärung / EU_Declaration_of_Conformity</a>
Engineering Data	<a href="#">CAD data – STEP</a>
Engineering Data	<a href="#">EPLAN, WSCAD</a>
User Documentation	<a href="#">Beipackzettel / Instruction sheet</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>
Brochures	

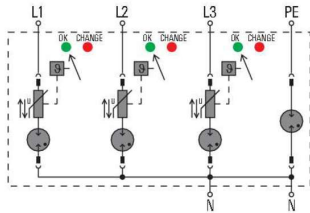
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**Drawings**

**Electric symbol**



Schematic circuit diagram