

## VPU I 3+1 LCF 280V/25KA

**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 upstream/ downstream of the electrical meter

- Can also be used for type II surge protection
- Tested according to IEC 61643-11 for type I and II surge protection
- With 35 kA (10/350  $\mu$ s) suitable for protective zones I, II, III and IV (LPL I/II/III/IV)

### 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="#">1351780000</a>
Type	VPU I 3+1 LCF 280V/25KA
GTIN (EAN)	4050118158397
Qty.	1 pc(s).
Replacement parts	<a href="#">1351540000</a> <a href="#">1351940000</a>

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Catalogue status 18.02.2023 / 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	142.4 mm	Width (inches)	5.606 inch
Mounting dimension - height	75 mm	Net weight	1,259 g

### Temperatures

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

### General data

Colour	black, orange, blue	Design	Installation housing; 8 TE, Insta IP 20
Operating altitude	≤ 2000 m	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	100 kA	Discharge current $I_{max}$ (8/20 $\mu$ s) N-PE	100 kA
Discharge current $I_n$ (8/20 $\mu$ s) N-PE	100 kA	Discharge current $I_n$ (8/20 $\mu$ s) wire-PE	25 kA
Energy coordination (≤10 m)	Type I, Type II, Type III	Follow-on current extinguishing capability $I_{fi}$	Not available due for technical reasons
Fuse	No Fuse necessary ≤250 A gG, 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)	25 kA	Lightning test current, $I_{imp}$ (10/350 $\mu$ s) (N-PE)	100 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)	≤ 1.6 kV
Protection level $U_p$ at $I_N$ (N-PE)	≤ 1.6 kV	Rated load current $I_L$	100 A
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	≤ 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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### 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 (acc. to IEC 1312-1), the arrester 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-performance 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/25 kA is used in the TN-C and TN-S 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): 25 kA protection level with lightning test current < 1.6 kV 25 kA short-circuit strength with max. back-up fuse of 250 A gl Type: Weidmüller VPU I 3+1 LCF 280 V/25 kA Order No. 1351780000 or equivalent	Short specification
		Class I arrester for LPL 1 with 25 kA suitable for 230/400 V TN-CS, TT mains systems. Protection level < 1.6 kV. Type: Weidmüller VPU I 3+1 LCF 280 V/25 kA Order no. 1351780000 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="#">WSCAD</a>
User Documentation	<a href="#">Beipackzettel / Instruction sheet</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>
Brochures	

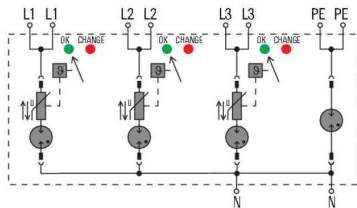
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**Drawings**

**Electric symbol**



Schematic circuit diagram