



## Surge arrester

### Stacked surge arresters

<b>Series/Type:</b>	<b>LNP20C-A1800AC-6C</b>
<b>Ordering code:</b>	<b>B88069X4023B201</b>
Date:	2019-04-30
Version:	05


**Features**

- High self-extinguishing capability
- High follow current limitation capability
- Stable performance over life
- High insulation resistance
- RoHS-compatible

**Applications**

- AC power line, L-PE and N-PE
- Class I and class II – surge protection

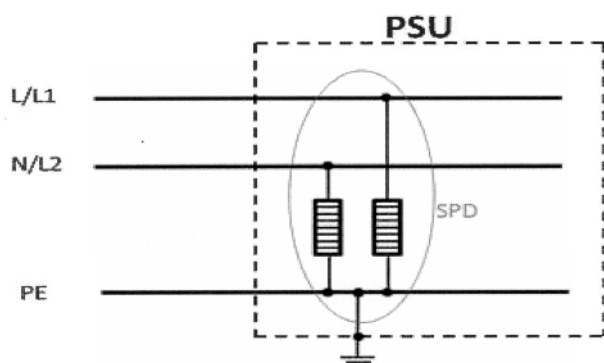
**Electrical specifications**

DC spark-over voltage <sup>1)</sup>		> 600	V
Front of wave spark-over voltage <sup>2)</sup> - at 1.2/50 $\mu$ s, 6 kV		< 2500	V
Breakdown time - typical values - for 99% of measured values		< 100 < 20	ns ns
Insulation resistance at 100 V <sub>DC</sub>		> 1	G $\Omega$
Class I according to IEC 61643-11			
Nominal operating voltage	U <sub>N</sub>	250	V
Max. continuous operating voltage	U <sub>c</sub>	275	V
Nominal discharge current 8/20 $\mu$ s	I <sub>n</sub>	8	kA
Impulse current 10/350 $\mu$ s	I <sub>imp</sub>	8	kA
Follow current extinguishing capability <sup>4)</sup>	I <sub>f</sub>	1	kA
Class II according to IEC 61643-11			
Nominal operating voltage	U <sub>N</sub>	250	V
Max. continuous operating voltage at 50/60 Hz	U <sub>c</sub>	275	V
Nominal discharge current 8/20 $\mu$ s	I <sub>n</sub>	8	kA
Maximum discharge current 8/20 $\mu$ s	I <sub>max</sub>	16	kA
Follow current at 50/60 Hz <sup>4)</sup>	I <sub>f</sub>	1	kA
Temporary over voltage (TOV) according to IEC 61643-11			
Maximum temporary overvoltage <sup>3)</sup>	U <sub>T</sub>	440	V
AC discharge current, 1 operation, 50 Hz, 0.2 s <sup>2) 5)</sup>		300	A
Connection cable cross section		> 4	mm <sup>2</sup>
Weight		~ 45	g
Operation and storage - temperature - humidity		-40 ... +125 5 ... 95	°C %
Climatic category (IEC 60068-1)		40/125/21	
Marking		without	
Certifications		UL 1449 (E319264)	

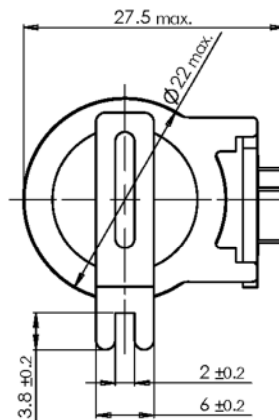
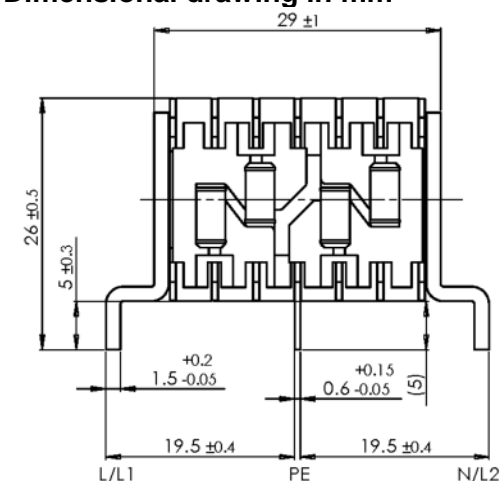
Remarks on next page

- 1) At delivery AQL 0.65 level II, DIN ISO 2859
- 2) L/L1- or N/L2-electrode to center electrode (PE), see dimensional drawing
- 3) L to N or L1, L2-electrode to center electrode (PE), see dimensional drawing
- 4) Cut-off selectivity for 40 A NH-gG/gL circuit breakers is given
- 5) TOV safe failure mode specification only valid if part is operated with external disconnector

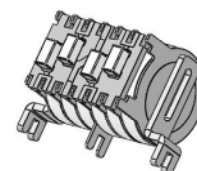
Typical application circuit



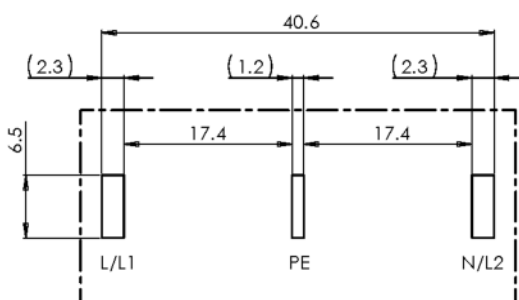
Dimensional drawing in mm



melting temperature of MLCC's solder is 200°C



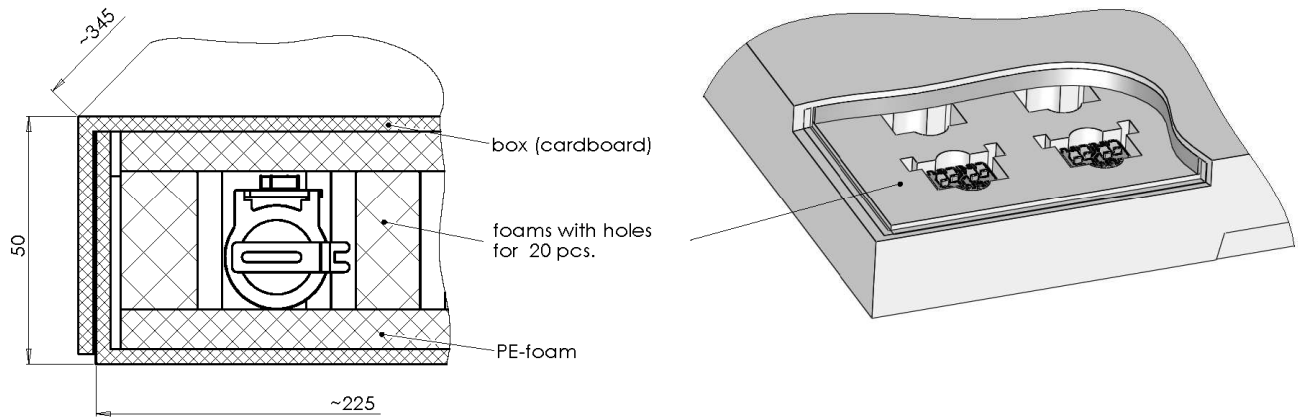
terminals tin plated



proposed PCB-pad-dimensions

**Ordering code and packing advice**

**B88069X4023B201** = 20 pcs. in a foam tray


**Cautions and warnings**

- The surge arrester can be used if the maximum expected follow current can be securely extinguished.
- The follow current must be limited (see values on page 2) so that the arrester can be properly extinguished when the surge has decayed. The arrester might otherwise heat up and ignite adjacent components.
- If the contacts of the surge arresters are defective, current load can cause sparks and loud noises.
- Surge arresters may become hot in the event of longer periods of current stress (burn risk). In the event of overload the connectors may fail or the component may be destroyed.
- TOV-safe failure mode according to IEC 61643-11 can only be guaranteed if an external disconnecter (e.g. circuit breaker) is used. If the part is operated without external disconnecter the arrester might otherwise heat up and ignite adjacent components.
- Surge arresters must be handled with care and must not be dropped.
- Do not continue to use damaged surge arresters.

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## Important notes

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