



Surge arrester

2-electrode arrester

Series/Type: EF2500X
Ordering code: B88069X5690****
Version/Date: Issue 04 / 2014-07-30

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Features

- High follow current capability
- Very fast response time
- Stable performance over life
- Very low capacitance
- High insulation resistance
- RoHS-compatible

Applications

- Application with high follow current
- Power supply
- Consumer electronics
- AC power line devices

Electrical specifications

DC spark-over voltage ^{1) 2)}	2500	V
Tolerance	± 20	%
Min.	2000	V
Max.	3000	V
Impulse spark-over voltage		
at 100 V/μs - for 99% of measured values	< 3200	V
- typical values of distribution	< 3000	V
at 1 kV/μs - for 99% of measured values	< 3500	V
- typical values of distribution	< 3300	V
Service life		
10 operations 50 Hz, 1 s	5	A
1 operation 50 Hz, 0.18 s (9 cycles)	35	A
10 operations [5x (+) & 5x (-)] 8/20 μs	5	kA
1 operation 8/20 μs	10	kA
Max. follow current during one voltage half cycle at 50 Hz ³⁾	200	A
Insulation resistance at 100 V _{DC}	> 10	GΩ
Capacitance at 1 MHz	< 1.5	pF
Arc voltage at 1 A	~ 35	V
Glow to arc transition current	< 0.3	A
Glow voltage	~ 120	V
Weight	~ 1.5	g
AC withstand voltage (1 min.)	1250	V
Operation and storage temperature	-40 ... +90	°C
Climatic category (IEC 60068-1)	40/ 90/ 21	
Marking, red positive	EPCOS EF 2500 YY O EF - Series 2500 - Nominal voltage YY - Year of production O - Non radioactive	
Certifications	UL 1449 (E319264)	

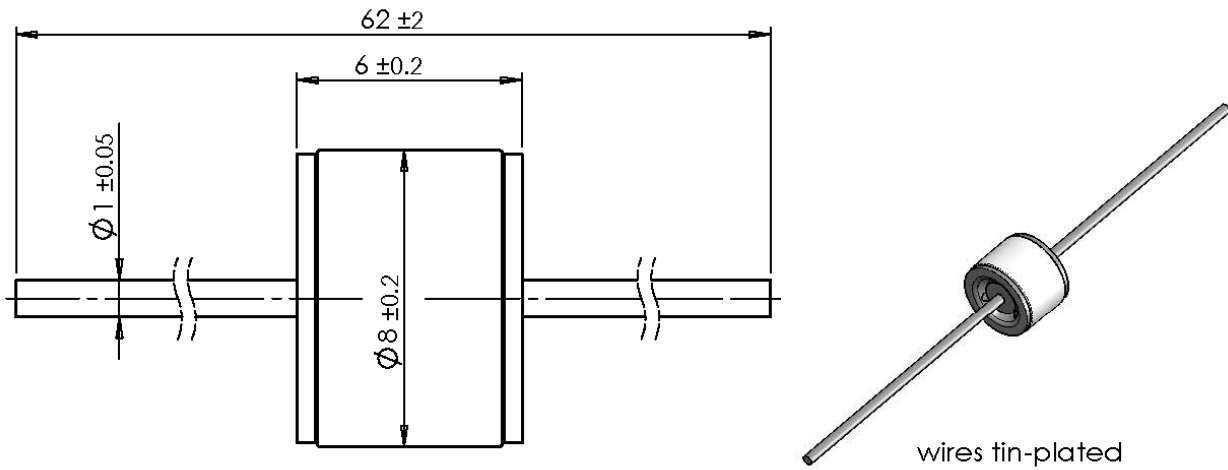
¹⁾ At delivery AQL 0.65 level II, DIN ISO 2859

²⁾ In ionized mode

³⁾ Follow current has to be limited by an appropriate varistor in series

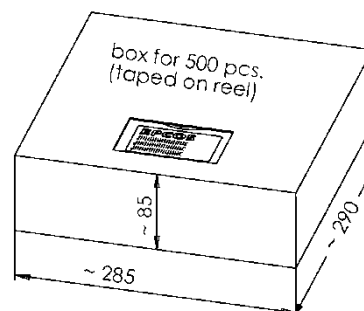
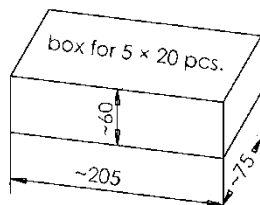
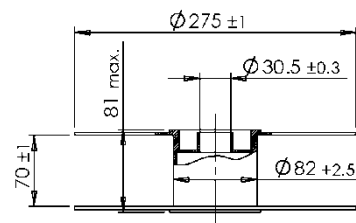
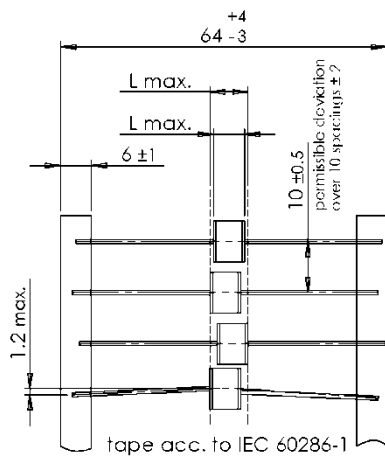
Terms in accordance with ITU-T Rec. K.12; IEC 61663-2 and IEC 61643-311.

Dimensional drawing in mm



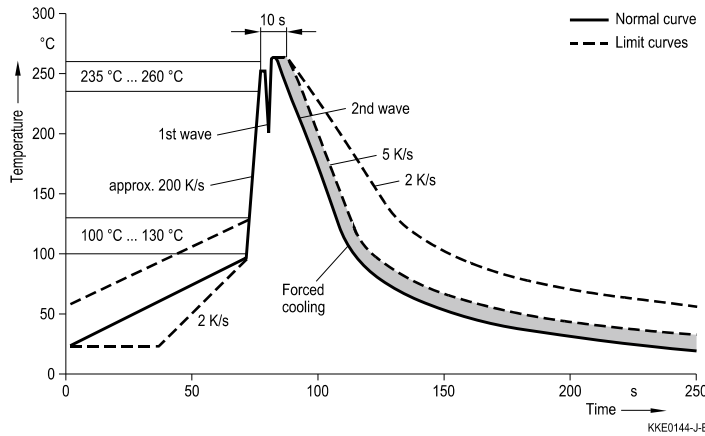
Ordering codes and packing advices

B88069X5690S102 = 100 pcs. on 5 taped stripes B88069X5690T502 = 500 pcs. on tape and reel



Soldering parameter

Wave soldering



Wave profile features	Pb-free assembly
Solder	Sn 95.5 / Ag 3.8 / Cu 0.7
Solder bath temperature	263 (±3) °C
Dwell time	< 3 s

Soldering profile applied to a single soldering process.

Cautions and warnings

- Surge arrester must be selected so that the maximum expected follow current can be quenched.
- The follow current must be limited so that the arrester can be properly extinguished when the surge has decayed. The arrester might otherwise heat up and ignite adjacent components.
- Surge arresters must not be operated directly in power supply networks.
- Surge arresters may become hot in case of longer periods of current stress (danger of burning).
- Surge arresters may be used only within their specified values. In case of overload, the lead contacts may fail or the component may be destroyed.
- Surge arresters must be handled with care and must not be dropped.
- Damaged surge arresters must not be re-used.

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