Surge arrester

2-electrode arrester

Series/Type:	**M51-C90X**
Ordering code:	**B88069X5010******
Date:	2026-04-01
Version:	12

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Surge arrester B88069X5010****

2-electrode arrester M51-C90X

Features

- Small size
- High current rating
- Fast response time
- Stable performance over life
- Low capacitance
- High insulation resistance
- RoHS-compatible

Applications

- Modem
- XDSL-splitter
- Data lines
- Tuner
- Antenna

Electrical specifications

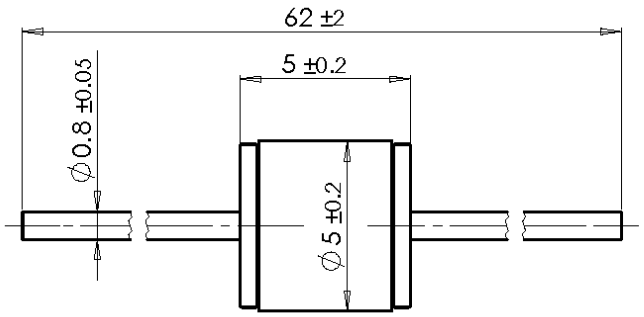
DC spark-over voltage [1) 2)]		90	V
Tolerance		±20	%
Min.		72	V
Max.		108	V
Impulse spark-over voltage			
at 100 V/µs	- for 99% of measured values	< 400	V
	- typical values of distribution	< 300	V
at 1 kV/µs	- for 99% of measured values	< 600	V
	- typical values of distribution	< 550	V
Service life			
10 operations	50 Hz, 1 s	5	A
1 operation	50 Hz, 0.18 s (9 cycles)	10	A
10 operations	8/20 µs	5	kA
1 operation	8/20 µs	10	kA
1 operation	10/350 µs	0.5	kA
300 operations	10/1000 µs	100	A
Insulation resistance at 50 V_{DC}		> 1	GΩ
Capacitance at 1 MHz		< 1	pF
Arc voltage at 1 A		~ 15	V
Glow to arc transition current		< 0.8	A
Glow voltage		~ 60	V
Weight		~ 1	g
Operation and storage temperature		–40 ... +125	°C
Climatic category (IEC 60068-1)		40/125/21	
Marking, blue negative		**TDK 90 YY** 90 - Nominal voltage YY - Year of production	
Certification		UL 497B (E163070)	

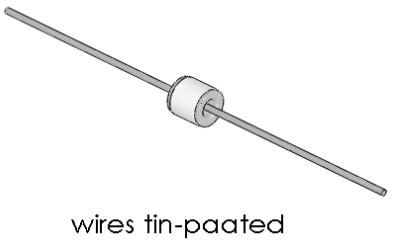
1) At delivery AQL 0.65 level II, DIN ISO 2859
2) In ionized mode

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

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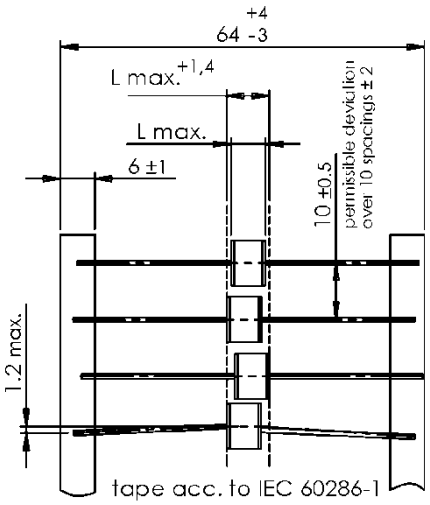
Dimensional drawing in mm



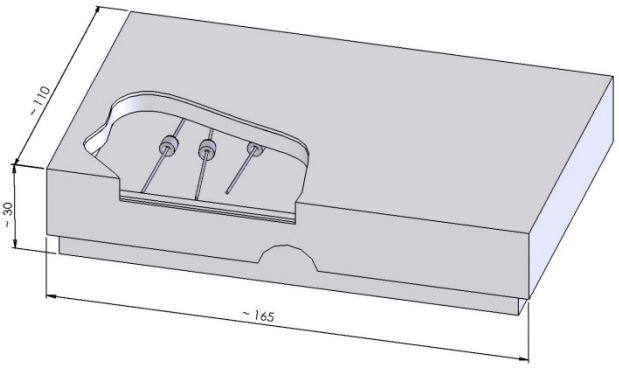


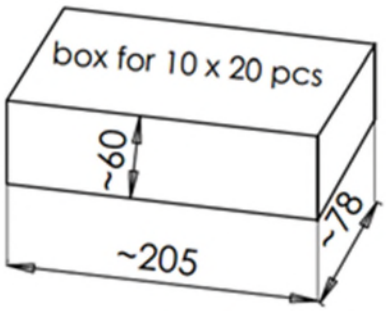
Ordering codes and packing advices

*B88069X5010**S202** = 200 pcs. on 10 taped stripes*



*B88069X5010**C102** = 100 pcs. in container*

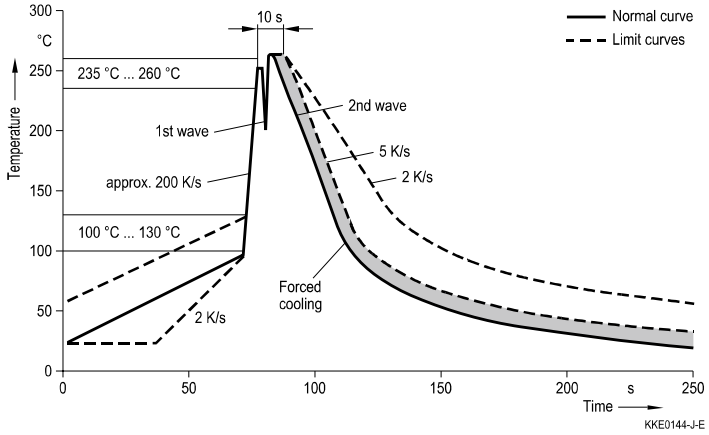




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Soldering parameter

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

- Do not operate surge arresters in power supply networks, whose maximum operating voltage exceeds the minimum spark-over voltage of the surge arresters.
- 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.
- If the contacts of the surge arresters are defective, current load can cause sparks and loud noises.
- Surge arresters must be handled with care and must not be dropped.
- Do not continue to use damaged surge arresters.

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