

Surge arrester

3-electrode arrester

Series/Type: T30-A230X

Ordering code: B88069X6100T702

Version / Date: Issue 01 / 2014-02-19

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Surge arrester B88069X6100T702

3-electrode arrester T30-A230X

Features

- Very small size
- Fast response time
- High current rating
- Stable performance over life
- Very low capacitance
- High insulation resistance
- RoHS-compatible

Applications

- Line protection
- Station protection
- Base stations

Electrical specifications

Example Exam	DO asserbases and 1)			000	1,,
Impulse spark-over voltage ³⁾ at 100 V/µs - for 99% of measured values - typical values of distribution at 1 kV/µs - for 99% of measured values - typical values of distribution at 1 kV/µs - for 99% of measured values - typical values of distribution Service life 10 operations 50 Hz; 1 s ⁴⁾ 10 operations 1 operation 10 operations [5x (+) & 5x (-)] 8/20 µs ⁴⁾ 10 operation 10 operation 10/350 µs ⁴⁾ 2 Insulation resistance at 100 V _{DC} ³⁾ Capacitance at 1 MHz ³⁾ Transverse delay time ⁵⁾ Arc voltage at 1 A Glow to arc transition current Glow voltage Weight Operation and storage temperature Climatic category (IEC 60068-1) Marking, blue negative EPCOS 230 YY 0 - Year of production O - Non radioactive	DC spark-over voltage	-, -,		230	V %
at 100 V/μs - for 99% of measured values - typical values of distribution		2)		± 20	70
- typical values of distribution at 1 kV/μs - for 99% of measured values - typical values of distribution Service life 10 operations 1 operation 10 operations 50 Hz; 1 s 4) 10 operations 50 Hz; 0.18 s (9 cycl.) 4) 10 operations 50 Hz; 0.18 s (9 cycl.) 4) 11 operation 10/350 μs 4) 12 linsulation resistance at 100 V _{DC} 3) Capacitance at 1 MHz 3) Transverse delay time 5) Arc voltage at 1 A Glow to arc transition current Glow voltage Weight Operation and storage temperature Climatic category (IEC 60068-1) Marking, blue negative - typical values of distribution - 450 - 420 10 - 10 - 30 - 10 - 10 - 40 - 30 - 41 - 200 - 40 - 40 - 40 - 40 - 40 - 40 - 40 -	Impulse spark-over volta			400	.,
at 1 kV/μs - for 99% of measured values - typical values of distribution	•	•			V
- typical values of distribution					V
Service life		The second secon			V
10 operations 50 Hz; 1 s ⁴⁾ 10 30 30 30 30 30 30 30 30 30 30 30 30 30				< 420	V
1 operation 50 Hz; 0.18 s (9 cycl.) 4) 30 10 operations [5x (+) & 5x (-)] 8/20 μs 4) 10 10 Insulation resistance at 100 V _{DC} 3) 2 Insulation resistance at 1 MHz 3) 2 Insulation resistance at 1 MHz 3) 2 2 3 3 4 5 3 3 4 5 3 6 7 9 6 7 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	Service life				
10 operations [5x (+) & 5x (-)] 8/20 μs ⁴⁾ 1 operation 10/350 μs ⁴⁾ 2 Insulation resistance at 100 V _{DC} ³⁾ Capacitance at 1 MHz ³⁾ Transverse delay time ⁵⁾ Arc voltage at 1 A Glow to arc transition current Glow voltage Weight Operation and storage temperature Climatic category (IEC 60068-1) Marking, blue negative 8/20 μs ⁴⁾ 2 Insulation in 10/350 μs ⁴⁾ 2 Insulation resistance at 100 V _{DC} ³⁾ 2 Insulation resistance at 100 V _{DC} ³ 2 Insulation resistance at 100 V _{DC} ⁴	10 operations			10	Α
1 operation 10/350 μs $^{4)}$ 2 Insulation resistance at 100 V_{DC} $^{3)}$ > 10 4 (Capacitance at 1 MHz $^{3)}$ < 1.5 4 (Transverse delay time $^{5)}$ < 0.2 4 Arc voltage at 1 A 4 4 4 5 5 5 5 5 Glow to arc transition current 5	1 operation			30	Α
Insulation resistance at 100 V _{DC} ³⁾ Capacitance at 1 MHz ³⁾ Transverse delay time ⁵⁾ Arc voltage at 1 A Glow to arc transition current Glow voltage Weight Operation and storage temperature Climatic category (IEC 60068-1) Marking, blue negative P 10 < 0.2 In 20 V 200 V 30 V 1.4 Operation and storage temperature Climatic category (IEC 60068-1) Marking, blue negative EPCOS 230 - Nominal voltage YY - Year of production O - Non radioactive	10 operations [5	× (+) & 5× (–)]	8/20 µs ⁴⁾	10	kA
Capacitance at 1 MHz ³⁾ Transverse delay time ⁵⁾ Arc voltage at 1 A Glow to arc transition current Glow voltage Weight Operation and storage temperature Climatic category (IEC 60068-1) Marking, blue negative Capacitance at 1 MHz ³⁾ - 2.0 - 30 - 1 - 200 Value - 200 Value - 40 +90 - 40/ 90/ 21 EPCOS 230 - Nominal voltage YY - Year of production O - Non radioactive	1 operation		10/350 μs ⁴⁾	2	kA
Transverse delay time 5) Arc voltage at 1 A Glow to arc transition current Glow voltage Weight Operation and storage temperature Climatic category (IEC 60068-1) Marking, blue negative EPCOS 230 Y O 230 - Nominal voltage YY - Year of production O - Non radioactive	Insulation resistance at 100 V _{DC} ³⁾			> 10	$G\Omega$
Arc voltage at 1 A Glow to arc transition current Glow voltage Weight Operation and storage temperature Climatic category (IEC 60068-1) Marking, blue negative EPCOS 230 YY O 230 - Nominal voltage YY - Year of production O - Non radioactive	Capacitance at 1 MHz ³⁾			< 1.5	pF
Glow to arc transition current Glow voltage Weight ~ 1.4 Operation and storage temperature Climatic category (IEC 60068-1) Marking, blue negative EPCOS 230 YY O 230 - Nominal voltage YY - Year of production O - Non radioactive	Transverse delay time 5)			< 0.2	μs
Glow voltage ~ 200 Weight ~ 1.4 Operation and storage temperature -40 +90 Climatic category (IEC 60068-1) Marking, blue negative EPCOS 230 YY 0 230 - Nominal voltage YY - Year of production O - Non radioactive	Arc voltage at 1 A			~ 30	V
Weight ~ 1.4 Operation and storage temperature -40 +90 Climatic category (IEC 60068-1) Marking, blue negative EPCOS 230 YY 0 230 - Nominal voltage YY - Year of production O - Non radioactive				•	Α
Operation and storage temperature -40 +90 Climatic category (IEC 60068-1) Marking, blue negative EPCOS 230 YY 0 230 - Nominal voltage YY - Year of production O - Non radioactive	Glow voltage			~ 200	V
Climatic category (IEC 60068-1) Marking, blue negative EPCOS 230 YY O 230 - Nominal voltage YY - Year of production O - Non radioactive	Weight			~ 1.4	g
Marking, blue negative EPCOS 230 YY O 230 - Nominal voltage YY - Year of production O - Non radioactive	Operation and storage temperature			-40 +90	°C
230 YY O 230 - Nominal voltage YY - Year of production O - Non radioactive	Climatic category (IEC 60068-1)			40/ 90/ 21	
Certifications UL 497B (E163070)	Marking, blue negative		230 YY O 230 - Nominal voltage YY - Year of production		
	Certifications			UL 497B (E163070)	

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

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

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²⁾ In ionized mode

³⁾ Tip or ring electrode to center electrode

Total current through center electrode, half value through tip respectively ring electrode.

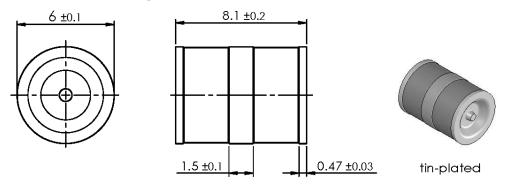
Test according to ITU-T Rec. K.12



Surge arrester B88069X6100T702

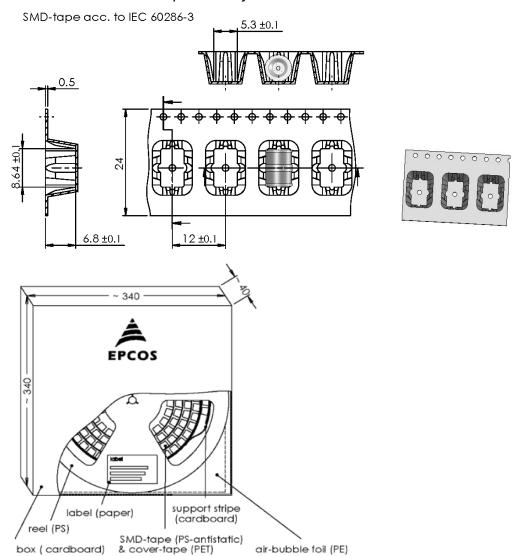
3-electrode arrester T30-A230X

Dimensional drawing in mm



Ordering code and packing advice

B88069X6100**B502** = 500 pcs. on trays



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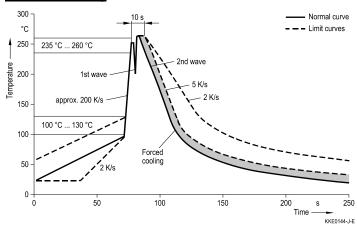


Surge arrester B88069X6100T702

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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

- 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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