



Surge arrester

3-Electrode-Arrester

3R-230AL1

Features	Applications
<ul style="list-style-type: none"> ▪ Very small size ▪ Extremely fast response time ▪ High current rating ▪ Stable performance over life ▪ Extremely low capacitance ▪ High insulation resistance ▪ RoHS-compatible 	<ul style="list-style-type: none"> ▪ Line protection ▪ Station protection ▪ Base stations

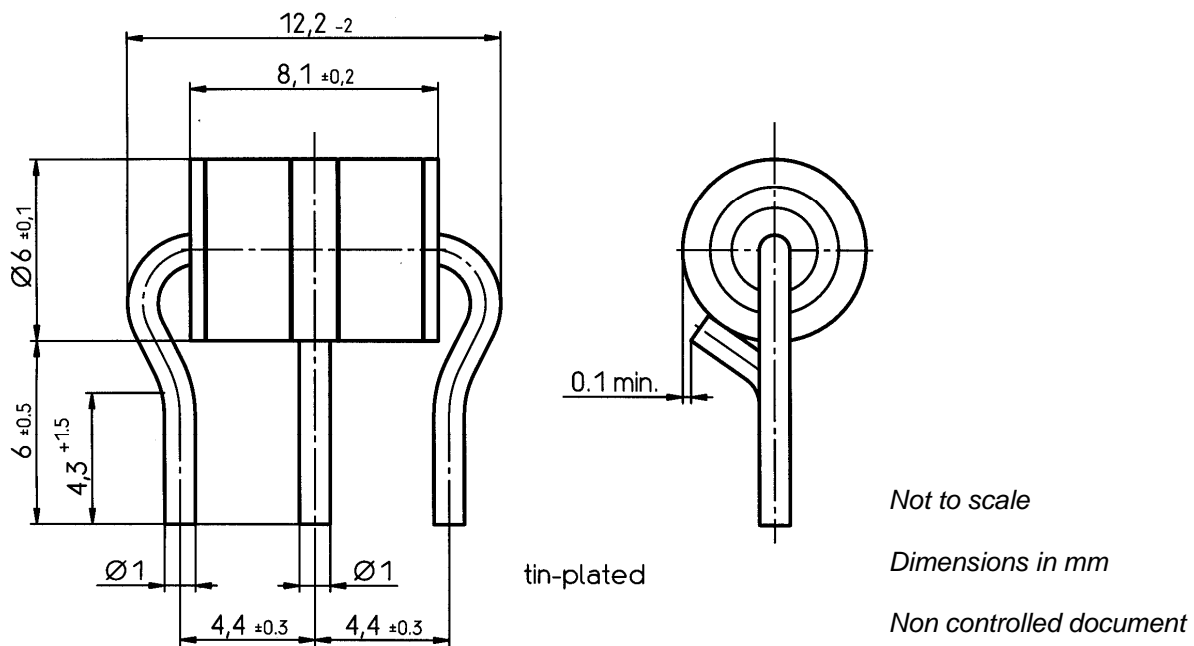
Electrical specifications

DC spark-over voltage ^{1) 2) 4)}	230 ± 20	V %
Impulse spark-over voltage ⁴⁾		
at 100 V/μs - for 99 % of measured values - typical values of distribution	< 400 < 350	V V
at 1 kV/μs - for 99 % of measured values - typical values of distribution	< 450 < 420	V V
Service life		
10 operations 50 Hz; 1 s ⁵⁾	10	A
1 operation 50 Hz; 0.18 s (9 cycles) ⁵⁾	30	A
10 operations [5x (+) & 5x (-)] 8/20 μs ⁵⁾	10	kA
1 operation 8/20 μs ⁵⁾	10	kA
1 operation 10/350 μs ⁵⁾	2	kA
Insulation resistance at 100 V _{dc} ⁴⁾	> 10	GΩ
Capacitance at 1 MHz ⁴⁾	< 1.5	pF
Transverse delay time ³⁾	< 0.2	μs
Arc voltage at 1 A	~ 30	V
Glow to arc transition current	~ 1	A
Glow voltage	~ 200	V
Weight	~ 1.4	g
Operation and storage temperature	-40 ... +90	°C
Climatic category (IEC 60068-1)	40/ 90/ 21	
Marking, blue negative	3R - Poles 230 - Nominal voltage AL1 - Series	

- 1) At delivery AQL 0.65 level II, DIN ISO 2859
- 2) In ionized mode
- 3) Test according to ITU-T Rec. K.12
- 4) Tip or ring electrode to center electrode
- 5) Total current through center electrode, half value through tip respectively ring electrode.

Terms in accordance with ITU-T Rec. K.12 and DIN 57845/VDE0845

Dimensional drawing



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 head contacts may fail or the component may be destroyed.
- Damaged surge arresters must not be re-used.