



Surge arrester

3-electrode arrester

3R-230AL4

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

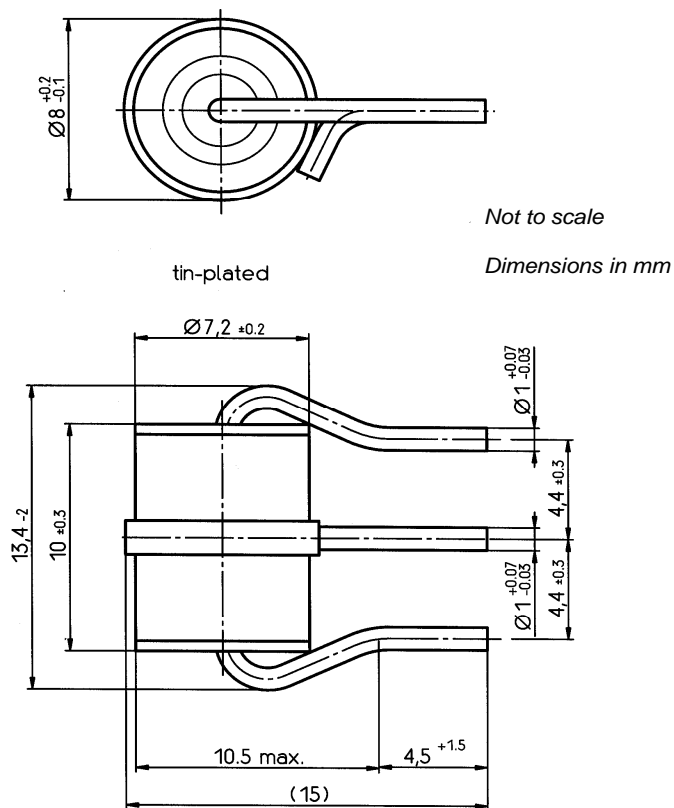
Electrical specifications

DC spark-over voltage ^{1) 2) 4)}	230 ± 20	V %
Impulse spark-over voltage ⁴⁾		
at 100 V/μs - for 99 % of measured values	< 400	V
- typical values of distribution	< 350	V
at 1 kV/μs - for 99 % of measured values	< 500	V
- typical values of distribution	< 450	V
Service life		
10 operations 50 Hz; 1 s ⁵⁾	10	A
1 operation 50 Hz; 9 cycles ⁵⁾	50	A
10 operations 8/20 μs ⁵⁾	20	kA
1 operation 8/20 μs ⁵⁾	25	kA
5 operations 10/250 μs ⁵⁾	5	kA
2 operations 10/350 μs ⁵⁾	5	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	~ 10	V
Glow to arc transition current	~ 1	A
Glow voltage	~ 60	V
Weight	~ 2	g
Operation and storage temperature	-40 ... +90	°C
Climatic category (IEC 60068-1)	40/ 90/ 21	
Marking	3R - Poles 230 - Nominal voltage AL4 - 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 lead contacts may fail or the component may be destroyed.
- Damaged surge arresters must not be re-used.