Surge arrester

3-electrode arrester

Series/Type: **T20-A420XF**
Ordering code: **B88069X7580B502**
Version/Date: Issue 02 / 2007-04-23

Features	Applications
▪ Standard size ▪ Fast response time ▪ Very high current rating ▪ Stable performance over life ▪ Very low capacitance ▪ High insulation resistance ▪ RoHS-compatible	▪ Line protection ▪ Station protection ▪ Base stations

Electrical specifications

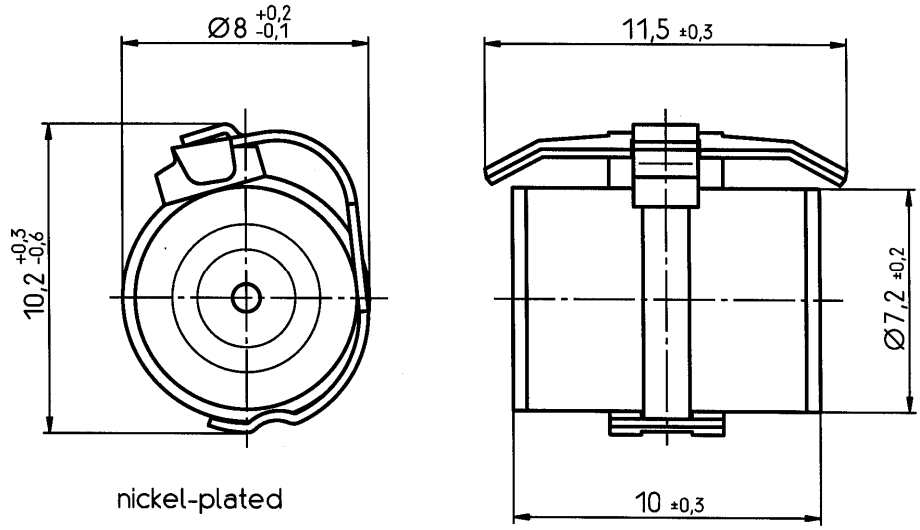
DC spark-over voltage [1) 2) 4)]		350 ... 550	V
Impulse spark-over voltage [4)]			
at 100 V/µs	- for 99 % of measured values	< 750	V
	- typical values of distribution	< 700	V
at 1 kV/µs	- for 99 % of measured values	< 850	V
	- typical values of distribution	< 800	V
Service life			
10 operations	50 Hz; 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
1 operation	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		~ 30	V
Glow to arc transition current		~ 1	A
Glow voltage		~ 200	V
Weight		~ 2.2	g
Storage temperature		-40 ... +90	℃
Climatic category (IEC 60068-1)		40/ 90/ 21	
Marking, blue negative		**EPCOS** **420 YY M O** 420 - Nominal voltage YY - Year of production M - Month of production (1 ... 9 = Jan ... Sep; O ... D = Oct ... Dec) O - Non radioactive	

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

The arrester failsafe mechanism contains a solder pellet with a melting temperature between 193 and 203 ℃.

Dimensional drawing



Not to scale

Dimensions in mm

Non controlled document

Cautions and warnings

- The short-circuit spring does not trigger until 180 ℃ is reached depending on the material. Care must be taken to limit the thermal radiation onto adjacent parts to safe values.
- 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.

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