

Surge arrester

POLIM-R..-2N



Product description:

- Metal-oxide (MO) surge arrester without spark gap, with own ABB metal-oxide resistors since more than 30 years
- Direct molded silicone housing for best environmental robustness
- 100% in house production – fully in charge of complete process
- High quality, safe and reliable, maintenance free
- For alternating current (AC) systems
- For indoor and outdoor installations
- Very high energy absorption capability
- Outstanding low protection level
- Excellent long-term stability even in case of frequent current impulses

Especially recommended for:

- overvoltage protection of motors
- overvoltage protection of power electronics
- energy absorber of semiconductor switching devices

Additional certification:

- Shock and vibration tested according to IEC 61373
- Fire and smoke behavior tested and classified according to EN 45545-2

Technical data

Characteristics

Impulse current tested according to IEC 61643-11	Class I & II
Nominal discharge current I_n (8/20 μ s)	20 kA _{peak}
Lightning discharge current I_{imp} (10/350 μ s)	20 kA _{peak}

Characteristics tested according to EN 50526-1 / IEC 62848-1

High current impulse I_{hc} (4/10 μ s)	100 kA _{peak}
Charge transfer capability Q_t	5 As (C)
Energy withstand capability W	24 kJ/kV (U_c)
Rated short-circuit current (after overload) I_s	20 kA _{Dc} for 0.2 s

Mechanical loads

Torque	20 Nm
Short term load SSL perpendicular to axis	60 Nm
Long term load SLL perpendicular to axis	30 Nm

Service conditions

Ambient air temperature T_{amb}	-60 to +55 °C (for temperatures up to 80 °C consider instructions of application guidelines)
Altitude	up to 1800 m (for higher altitudes contact ABB)
Frequency of system voltage	15 to 62 Hz

Electrical data and Housing

Electrical data

Continuous operating voltage $U_c (=U_r)^*$	Residual voltage U_{res} at specified impulse current									
	Steep current impulse wave 1/... μ s		Lightning current impulse wave 8/20 μ s				Switching current impulse wave 30/60 μ s			
	10 kA	20 kA	2 kA	4 kA	10 kA	$I_n=20$ kA	40 kA	500 A	1000 A	2000 A
kV_{rms}	kV_{peak}	kV_{peak}	kV_{peak}	kV_{peak}	kV_{peak}	kV_{peak}	kV_{peak}	kV_{peak}	kV_{peak}	kV_{peak}
0.11	0.35	0.38	0.30	0.32	0.33	0.34	0.38	0.28	0.29	0.30
0.22	0.72	0.77	0.61	0.64	0.68	0.70	0.77	0.58	0.60	0.61
0.28	0.88	0.94	0.75	0.79	0.83	0.86	0.94	0.71	0.73	0.75
0.40	1.20	1.28	1.02	1.07	1.13	1.17	1.28	0.96	0.99	1.02
0.44	1.37	1.47	1.17	1.23	1.29	1.34	1.47	1.10	1.14	1.17
0.66	2.08	2.22	1.77	1.86	1.95	2.03	2.22	1.67	1.72	1.77
0.78	2.43	2.60	2.08	2.18	2.29	2.38	2.60	1.96	2.01	2.07

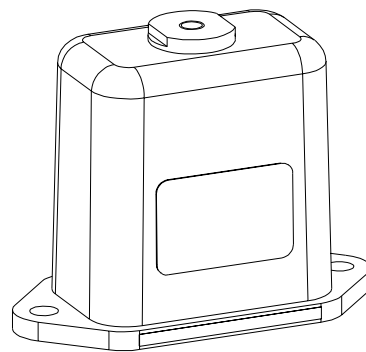
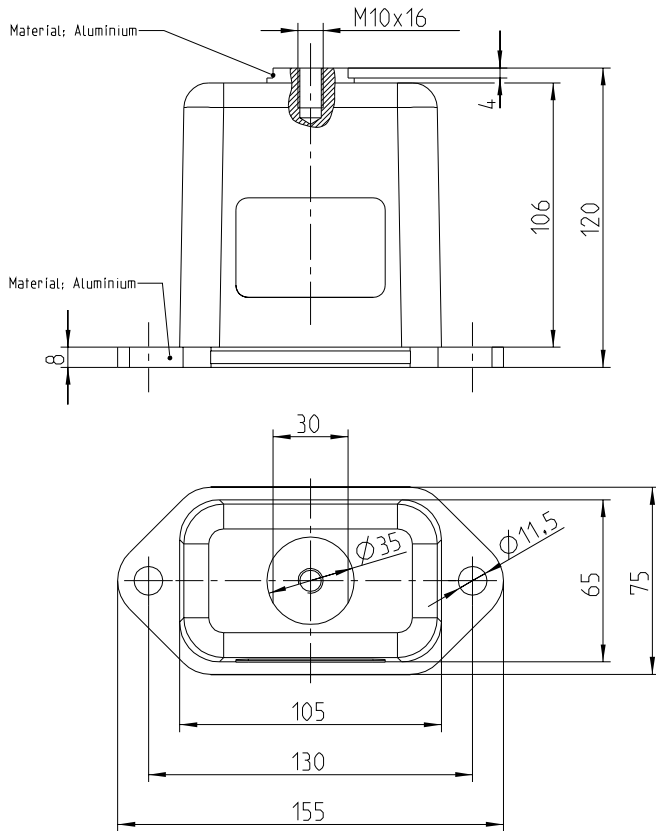
* The rated voltage U_r of the arrester coincides with the continuous operating voltage U_c .

Housing

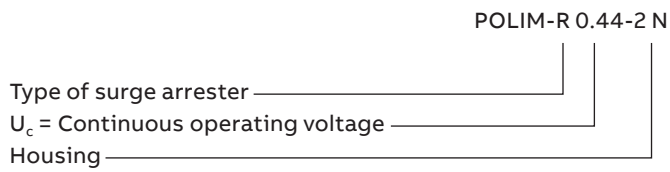
Continuous operating voltage U_c	Creepage distance mm	Flashover distance mm	Height mm	Weight kg	Insulation withstand voltage of empty housing			
					1.2/50 μ s		1 min wet	
					required values acc. to EN/IEC	guaranteed	required values acc. to EN/IEC	guaranteed
kV_{rms}					kV_{peak}	kV_{peak}	kV_{rms}	kV_{rms}
0.11	115	115	120	<1.5	0.50	20	0.34	10
0.22	115	115	120	<1.5	1.03	20	0.70	10
0.28	115	115	120	<1.5	1.27	20	0.86	10
0.40	115	115	120	<1.5	1.72	20	1.17	10
0.44	115	115	120	<1.5	1.97	20	1.34	10
0.66	115	115	120	<1.5	2.99	20	2.03	10
0.78	115	115	120	<1.5	3.50	20	2.38	10

Dimensions

Dimensions according to outline drawing 1HC0015766
 Outline drawings with accessories on request



Structure of type designation



For more information please contact:

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For detailed information for dimensioning of our products see following ABB documents:

- Application guidelines
Overvoltage protection
Metal oxide surge arresters in medium voltage systems
- Application guidelines
Overvoltage protection
Metal oxide surge arresters in railway facilities

For pdf or print version please send E-mail to:
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Our products are certified according ISO 9001, 14001, 18001 and IRIS