

Surge arrester

POLIM-R..-1N



Overvoltage protection of

- Installations
- Apparatus
- Rotating machines

Application

- Alternating current (AC)
- Outdoor and indoor

Technical data

Surge arrester with metal oxide resistors without spark gaps (MO surge arrester), direct molded silicone, grey color, designed and tested with reference to IEC 61643-11.

Nominal discharge current I_n 8/20 μ s	10 kA peak
Test class	I & II
High current impulse I_{hc} 4/10 μ s	100 kA peak
Switching current impulse I_{sw} 30/60 μ s	1000 A peak
Impulse discharge current I_{imp} 10/350 μ s	10 kA peak
Charge transfer capability Q_t	5 As
Energy withstand capability W	12 kJ/kV _{Uc}
Maximum discharge current I_{max} 8/20 μ s	50 kA peak
Short circuit rating I_s 50 Hz	20 kA rms for 0.2 s, tested according IEC 60099-4

The thermal stability of the MO surge arrester is proved in the operating duty test according test class I or II.

Mechanical loads

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

Shock and vibration tested according IEC 61373.

General data

Ambient air temperature	-60 to +40°C (for higher values contact manufacturer)
Altitude	up to 1800 m (for higher values contact manufacturer)
Frequency of system voltage	16.7/50/60 Hz



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Electrical data

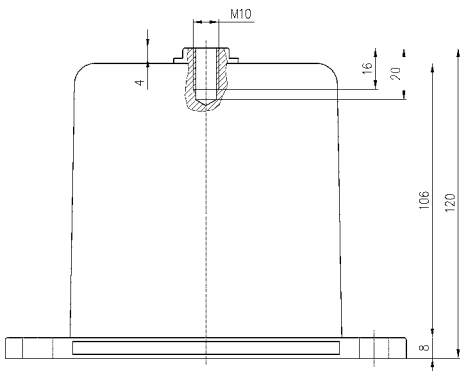
$U_c (= U_r)$ * Continuous operating voltage	Residual voltage U_{res} in kV peak at specified impulse current									
	wave 1/... μ s		wave 8/20 μ s					wave 30/60 μ s		
kV rms	5 kA	10 kA	1 kA	2 kA	5 kA	10 kA	20 kA	250 A	500 A	1000 A
0.11	0.35	0.38	0.30	0.32	0.33	0.34	0.38	0.28	0.29	0.30
0.22	0.72	0.77	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 .

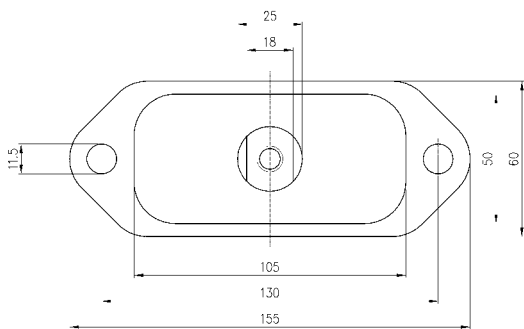
Housing

U_c Continuous operating voltage	Creepage distance	Flashover distance	Height	Weight	Insulation withstand voltage of empty housing			
					1.2/50 μ s		1 min wet	
					required acc. IEC	guaranteed	required acc. IEC	guaranteed
kV rms	mm	mm	mm	kg	kV peak	kV peak	kV rms	kV rms
0.11	112	112	120	< 1.0	0.50	20	0.34	10
0.22	112	112	120	< 1.0	1.03	20	0.70	10
0.28	112	112	120	< 1.0	1.27	20	0.86	10
0.40	112	112	120	< 1.0	1.72	20	1.17	10
0.44	112	112	120	< 1.0	1.97	20	1.34	10
0.66	112	112	120	< 1.0	2.99	20	2.03	10
0.78	112	112	120	< 1.0	3.50	20	2.38	10

Dimensions (mm)



Standard dimensions without accessories
(may be subject to changes)
Dimensions according outline drawing 1HC0015765
Outline drawings with accessories on request



Structure of type designation

POLIM-R 0.44-1 N

Type of arrester _____
 U_c = Continuous operating voltage _____
 Housing _____

For further information please contact:

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For detailed information regarding the dimensioning of our products see the 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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