Surge arresters

POLIM-R..ND

Technical data

- For system voltages up to 750 V d.c.
- Nominal discharge current I_n 8/20 µs 20 kA pk
- High current impulse I_{hc} 4/10 µs 100 / 200 kA pk
- Short circuit rating (1) I_s 50 Hz 20 kA rms for 0.2s
- Tested according to IEC 61643-1 class I and II
- Service conditions: temperature (2) - 60°C up to + 45°C
- altitude (3) up to1800 m
- Long duration current impulse 1350 / 2400 A / 2000 µs
- Energy capability, 2 impulses acc. IEC clause 7.5.5 10,5 / 19 kJ/kV of Uc d.c.

(1) Tested value acc. IEC 60099-4.
(2) These values exceed IEC requirements. For installations in higher ambient temperatures, please contact the manufacturer.
(3) This value exceeds IEC requirements. For installations in higher altitudes, please contact the manufacturer.

Application

Protection of DC networks against both, multiple atmospheric and switching overvoltages, as well as Very Fast Transients (VFT). Suitable for the protection of railway systems. For indoor and outdoor installation.

Advantages

- Low residual voltage
- Long protection distance
- High energy input capacity
- Stable U-I characteristics even after multiple strokes
- Proof against ageing
- Explosion and shatter-resistant design
- Pollution resistant and UV-stable
- Housing resistant to rough handling
- Maintenance free
- Stable against shock and vibration

Guaranteed data for POLIM-R..-1 ND

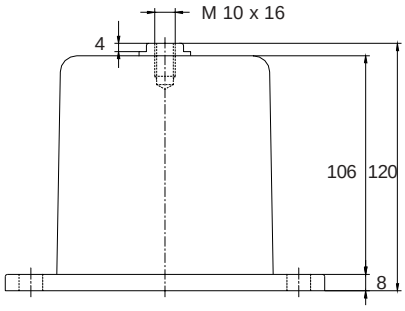
Type	U_c (4)	Residual voltage (U_{res}) in kV pk at a specified impulse current												
	Continuous operating	Wave 1/...µs		Wave 8/20 µs							Wave 30/60 µs			
POLIM-R -1ND	voltage (d.c.) kV	10 kA pk	20 kA pk	1kA pk	1.5 kA pk	3 kA pk	5 kA pk	10 kA pk	20 kA pk	40 kA pk	250 A pk	500 A pk	1 kA pk	2 kA pk
0.14-1	0.14	0.38	0.43	0.30	0.31	0.32	0.33	0.34	0.38	0.42	0.28	0.29	0.30	0.31
0.29-1	0.29	0.78	0.88	0.62	0.63	0.66	0.68	0.70	0.77	0.85	0.58	0.59	0.60	0.63
0.36-1	0.36	0.97	1.09	0.77	0.79	0.82	0.84	0.87	0.96	1.06	0.72	0.73	0.75	0.78
0.49-1	0.49	1.32	1.48	1.04	1.07	1.12	1.14	1.18	1.30	1.44	0.97	0.99	1.02	1.05
0.56-1	0.56	1.51	1.69	1.19	1.22	1.28	1.30	1.35	1.49	1.64	1.11	1.14	1.16	1.20
0.85-1	0.85	2.29	2.57	1.80	1.85	1.94	1.98	2.05	2.26	2.49	1.68	1.72	1.76	1.82
1.00-1	1.00	2.67	3.00	2.10	2.16	2.26	2.31	2.40	2.64	2.91	1.96	2.01	2.06	2.13

Guaranteed data for POLIM-R..-2 ND

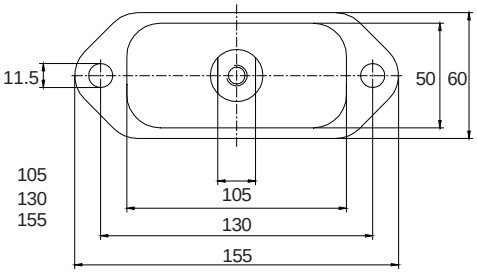
Type	U_c (4)	Residual voltage (U_{res}) in kV pk at a specified impulse current												
	Continuous operating	Wave 1/...µs		Wave 8/20 µs							Wave 30/60 µs			
POLIM-R -2ND	voltage (d.c.) kV	10 kA pk	20 kA pk	1kA pk	1.5 kA pk	3 kA pk	5 kA pk	10 kA pk	20 kA pk	40 kA pk	250 A pk	500 A pk	1 kA pk	2 kA pk
0.14-2	0.14	0.32	0.38	0.29	0.30	0.31	0.32	0.33	0.34	0.38	0.27	0.28	0.29	0.30
0.29-2	0.29	0.68	0.78	0.61	0.62	0.63	0.66	0.68	0.70	0.77	0.57	0.58	0.59	0.60
0.36-2	0.36	0.85	0.97	0.76	0.77	0.79	0.82	0.84	0.87	0.96	0.71	0.72	0.73	0.75
0.49-2	0.49	1.16	1.32	1.02	1.04	1.07	1.12	1.14	1.18	1.30	0.96	0.97	0.99	1.02
0.56-2	0.56	1.33	1.51	1.16	1.19	1.22	1.28	1.30	1.35	1.49	1.09	1.11	1.14	1.16
0.85-2	0.85	2.01	2.29	1.76	1.80	1.85	1.94	1.98	2.05	2.26	1.65	1.68	1.72	1.76
1.00-2	1.00	2.34	2.67	2.05	2.10	2.16	2.26	2.31	2.40	2.64	1.92	1.96	2.01	2.06

(4) For low voltage systems (a.c. and d.c.) the continuous operating voltage U_c is equal to the rated voltage U_r (see IEC 61643-1).
The manufacturer reserves the right to change technical data or design without prior notice 10/00

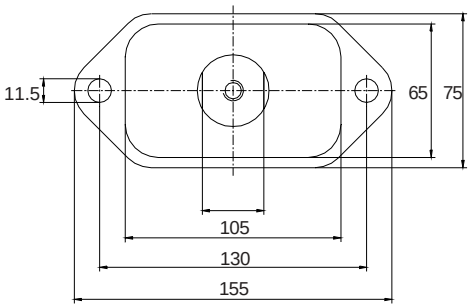
Dimensions (in mm)



POLIM-R..-1 ND / POLIM-R..-2 ND



POLIM-R..-1 ND



POLIM-R..-2 ND

Insulation data, dimensions and weight for POLIM-R..-1 ND

Type	Creepage distance	Flashover distance	Height H	Weight
	mm	mm	mm	kg
0.14-1	113	113	120	< 0.9
0.29-1	113	113	120	< 0.9
0.36-1	113	113	120	< 0.9
0.49-1	113	113	120	< 0.9
0.56-1	113	113	120	< 0.9
0.85-1	113	113	120	< 0.9
1.00-1	113	113	120	< 0.9

Insulation data, dimensions and weight for POLIM-R..-2 ND

Type	Creepage distance	Flashover distance	Height H	Weight
	mm	mm	mm	kg
0.14-2	115	115	120	< 1.3
0.29-2	115	115	120	< 1.3
0.36-2	115	115	120	< 1.3
0.49-2	115	115	120	< 1.3
0.56-2	115	115	120	< 1.3
0.85-2	115	115	120	< 1.3
1.00-2	115	115	120	< 1.3