

# Surge arrester POLIM-C..LB



## Overvoltage protection of

- Cable sheath
- Motors

## Application

- Alternating current (AC)
- Indoor

## Technical data

Surge arrester with metal oxide resistors without spark gaps (MO surge arrester), direct molded silicone housing, grey color, designed and tested according to IEC 60099-4.

Nominal discharge current $I_n$ 8/20 $\mu$ s	10 kA peak
Line discharge class (LD)	2
High current impulse $I_{hc}$ 4/10 $\mu$ s	100 kA peak
Long duration current impulse	550 A / 2000 $\mu$ s

The thermal stability of the MO surge arrester is proved in the operating duty test according to LD 2, which gives an energy input of 5.5 kJ/kV ( $U_c$ ).

## Power frequency voltage versus time characteristic (TOV) with prior energy input

$t = 1$ s	$U_{TOV} = 1.31 \times U_c$
$t = 3$ s	$U_{TOV} = 1.28 \times U_c$
$t = 10$ s	$U_{TOV} = 1.25 \times U_c$

## Mechanical loads

Torque moment	30 Nm
Tensile strength axial	1000 N

## 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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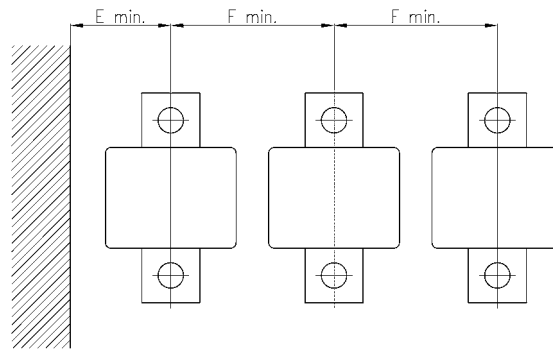
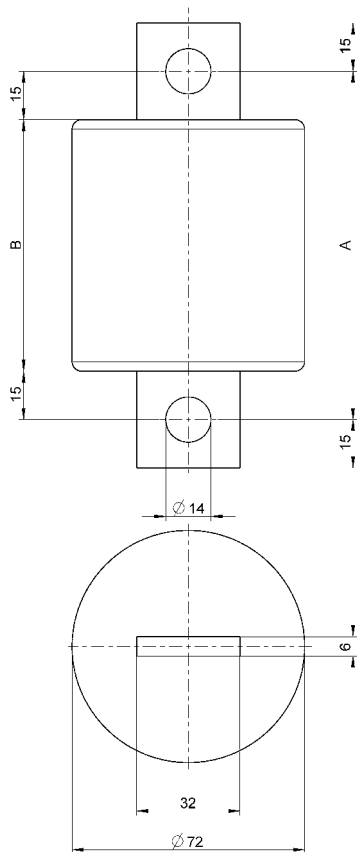
# Electrical data

$U_c$ Continuous operating voltage	$U_r$ Rated voltage	Residual voltage $U_{res}$ in kV peak at specified impulse current									
		wave 1/... $\mu$ s		wave 8/20 $\mu$ s					wave 30/60 $\mu$ s		
kV	kV	5 kA	10 kA	1.0 kA	2.5 kA	5 kA	<b>10 kA</b>	20 kA	125 A	250 A	500 A
rms	rms	peak	peak	peak	peak	peak	<b>peak</b>	peak	peak	peak	peak
2.3	2.88	8.7	9.7	6.8	7.2	7.5	<b>7.9</b>	9.1	5.9	6.1	6.4
3.0	3.75	11.2	12.3	8.8	9.3	9.8	<b>10.3</b>	11.8	7.7	8.0	8.3
4.0	5.0	14.8	16.1	11.8	12.5	13.1	<b>13.8</b>	15.8	10.3	10.7	11.1
4.8	6.0	17.5	19.0	14.1	14.9	15.6	<b>16.5</b>	18.9	12.3	12.8	13.2

# Housing

$U_c$ Continuous operating voltage	Creepage distance	Flashover distance	Recommended minimum clearances		Height A	Height B	Weight	Insulation withstand voltage of empty housing			
			$E_{min}$	$F_{min}$				1.2/50 $\mu$ s		1 min dry	
kV rms	mm	mm	mm	mm	mm	mm	kg	required values acc. to IEC	guaranteed	required values acc. to IEC	guaranteed
2.3	93	93	42	77	85.5	55.5	< 0.62	11.9	60	4.8	14
3.0	93	93	49	77	85.5	55.5	< 0.65	15.4	60	6.3	14
4.0	115	115	60	92	108	78	< 0.87	21.0	60	8.4	14
4.8	115	115	69	104	108	78	< 0.91	25.0	60	9.9	14

## Dimensions (mm)



Standard dimensions without accessories (may be subject to changes)  
 Dimensions according outline drawing 1HC0020135  
 Outline drawings with accessories on request

## Structure of type designation

POLIM-C 4.0 LB  
 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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