



# Surge Arresters

Polymeric Zinc Oxide (Silicone Rubber)

type **PBP**



The Balestro's PBP polymeric distribution surge arresters have an advanced envelope system for the ZnO varistor stack, the ISOFIVIN (Pat. Pend.). This new system improves resistance to weather conditions (no moisture ingress) and mechanical characteristics, with high cantilever and torsional strength. Over this envelope, Balestro has developed its polymeric housing with silicone rubber, highly resistant to UV radiation, polluted environments and all weather conditions, specially recommended for high polluted areas. In this feature, the silicone rubber has a particular advantage to other polymeric materials: its hydrophobicity, that allows water-repellent characteristic to the arrester housing. The Balestro's PBP polymeric distribution surge arresters are equipped with a disconnector device carefully developed for coordination with the over current protection of the distribution lines. Its time x current curve coordinates the operation with fuses type 12K (12A, fast type). Balestro has a modern test laboratory to perform, beyond of routine and acceptance tests, design (type) tests like combined operation duty cycle, high current and long duration current, accelerated ageing in zinc oxide varistors, dielectric test (both of impulse and A.C. tests), partial discharge tests and others. The Balestro's PBP distribution surge arresters meet both IEC 60099-4 and ANSI C62.11 standards requirements.

04/2015



Desde 1997



[www.balestro.com.br](http://www.balestro.com.br)

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type **PBP**

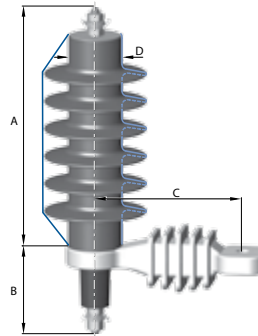
## Ordering Code for the Balestro Polymeric Surge Arrester

Balestro Polymeric Surge Arrester

# PBP 3/10

Rated Voltage (kV)

Nominal Discharge Current  
5 or 10 (kA) - Normal/Heavy Duty



### Dimensions

— Leakage distance  
— Arc Distance

D: 5 kA - 50 mm  
10 kA - 58 mm

## Electrical Characteristics

Model	Rated Voltage $U_r$ (kV rms)	Continuous Voltage $U_c$ (kV rms)	Maximum Steep Residual Voltage (kV peak)	Maximum Switching residual Voltage 500A (kV peak)	Maximum Residual Voltage 8/20 (kV pico)					
					Normal Duty - 5kA			Heavy Duty - 10kA		
					2,5kA	5,0kA	10,0kA	5,0kA	10,0kA	20,0kA
PBP 03/X	3,0	2,55	11,0	8,0	9,3	9,9	11,3	9,3	9,9	11,3
PBP 06/X	6,0	5,10	21,9	16,0	18,6	19,8	22,5	18,6	19,8	22,5
PBP 09/X	9,0	7,65	32,9	24,0	28,0	29,7	33,7	28,0	29,7	33,7
PBP 10/X	10,0	8,40	36,6	27,0	31,0	33,0	37,4	31,0	33,0	37,4
PBP 12/X	12,0	10,2	43,9	32,0	37,3	39,6	44,7	37,3	39,6	44,7
PBP 15/X	15,0	12,7	54,9	40,0	46,7	49,5	56,0	46,7	49,5	56,0
PBP 18/X	18,0	15,3	65,9	48,0	56,0	59,4	67,0	56,0	59,4	67,0
PBP 21/X	21,0	17,0	76,8	56,0	65,3	69,3	78,0	65,3	69,3	78,0
PBP 24/X	24,0	19,5	87,8	64,0	74,6	79,2	89,3	74,6	79,2	89,3
PBP 27/X	27,0	22,0	98,8	72,0	84,0	89,1	102,5	84,0	89,1	102,5
PBP 30/X	30,0	24,4	110,0	80,0	93,3	99,0	112,8	93,3	99,0	112,8
PBP 33/X	33,0	28,0	121,0	88,0	102,7	109,0	124,2	102,7	109,0	124,2
PBP 36/X	36,0	30,6	132,0	96,0	111,9	118,8	135,4	111,9	118,8	135,4

## Mechanical Characteristics

Model	A (mm)	B (mm)	C (mm)	Arc Distance (mm)	Leakage Distance (mm)	Weight (kg)	
						5kA	10kA
PBP 03/X	135	98	115	110	200	2,20	2,30
PBP 06/X	135	98	115	110	200	2,40	2,50
PBP 09/X	208	98	115	180	335	2,60	2,70
PBP 10/X	208	98	115	180	335	2,80	3,10
PBP 12/X	208	98	115	180	335	2,80	3,10
PBP 15/X	208	98	115	180	335	2,90	3,20
PBP 18/X	270	98	160	240	495	3,40	4,00
PBP 21/X	270	98	160	240	495	3,60	4,20
PBP 24/X	270	98	160	240	495	3,80	4,40
PBP 27/X	327	98	160	300	660	4,00	4,70
PBP 30/X	327	98	160	300	660	4,10	4,80
PBP 33/X	327	98	160	300	660	4,30	5,00
PBP 36/X	400	98	160	370	850	4,80	5,50

Due to constant development, this information may be changed without notice. Other models on request.

04/2015



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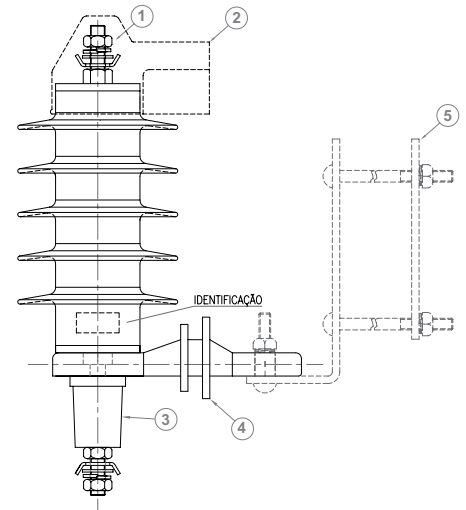
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## Accessories:

- 1. Line and ground terminal:** Can support copper or aluminium cables from 6 to 35 mm<sup>2</sup>.
- 2. Insulating cover:** Used to the surge-arrester line terminal protection against accidental contacts. It is made out of silicone rubber (provided on demand).
- 3. Automatic disconnecter:** Device used to visually disconnect a faulty surge-arrester from the system to which it is connected, avoiding permanent failure in the system coordination with 12K fuse links. Dispositivo para desconectar,
- 4. Insulating bracket:** This bracket provides insulation between the surge-arrester and the ground, in order to make the automatic disconnecter use possible.
- 5. NEMA Mounting Bracket:** It is used to the surge-arrester mount on wooden or metal cross arm.



## Special Applications:

In some cases, because of installation demand or the client's criteria, the surge-arrester may be provided without automatic disconnecter. In this case, there is the possibility of providing the surge-arrester with determined accessories or not. In regard to the automatic disconnecter, the client should be aware the its no utilization will lead to no service removal of a burnt surge-arrester. Thus, the system will stay shorted with the ground and the system chain protection will be requested.