

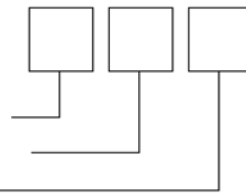
Bowthorpe EMP Transmission Surge Arrester

PCA Range

Metal oxide arrester (ZnO)
Polymeric Housing
Outdoor application
IEC 60099-4; 2014
Nominal discharge current: 10 kA
Designation class SM
Charge current rate (Qrs): 2.2 C (Impulse)
High current impulse 4/10 μ s: 100 kA
Energy Capability (Wth):
7.8 kJ/kV at U_r (Thermal)

PCA1-30

Line Terminal
Ground Terminal
Mounting



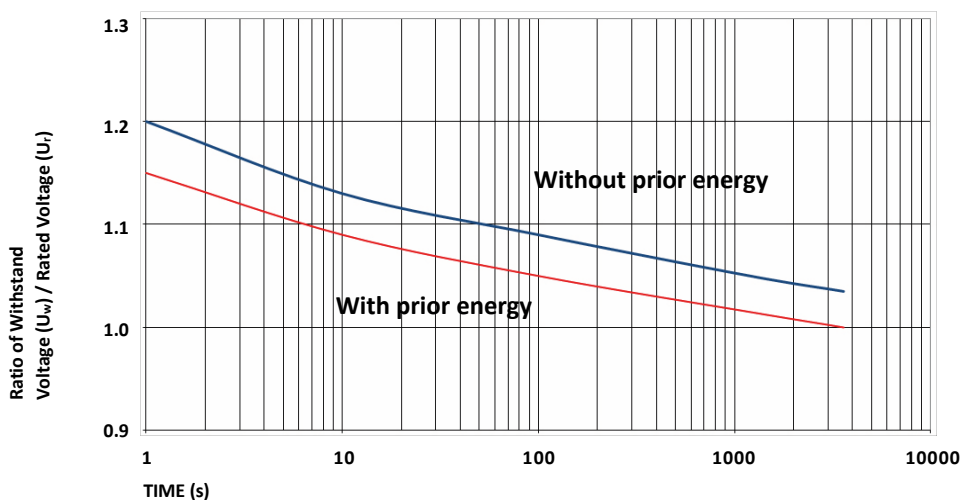
Surge Arrester Characteristics

Rated voltage	U_c	30	kV
Continuous operating voltage	U_c	24.0	kV
TOV Capability (With prior energy)	T_r	34.5	kV for 1s
		32.7	kV for 10s
Rated short circuit current		65	kA
Cantilever Load			
Safe long-term load (SLL)		2.0	kNm
Safe short-term load (SSL)		2.5	kNm
Dry impulse voltage - 1,2/50 μ s		275	kV
Wet power frequency voltage		101	kV
Flashover Distance		406	mm
Creepage Length		1100	mm
Minimum distance between Phase Centers		320	mm
Minimum distance between Phase to Earth		160	mm
Height		400	mm
Approx. Weight		10	kg

Maximum Residual Voltages

Lightning current impulse 8/20 μ s				Steep lightning current impulse 1/20 μ s		Switching current impulse 30/60 μ s					
5 kA	10 kA	20 kA	40 kA	10 kA	20 kA	125 A	250 A	500 A	1000 A	2000 A	3000 A
68.4 kV	72.0 kV	77.8 kV	86.4 kV	75.6 kV	81.1 kV	56.2 kV	57.6 kV	59.0 kV	61.2 kV	63.5 kV	65.5 kV

Power frequency voltage versus time



Marking

PCA1-30
 U_r : 30.0 kV U_c : 24.0 kV
IEC 60099-4
Designation SM
 I_{sc} 65 kA
Serial No
Energy 7.8 kJ/kV- U_r
Nom Disc Curr 10 kA
Qrs: 2.2 C
Manufacturing Year

Technical Information: - Contact Product Management Brighton UK (+44 (0)1793 572399)

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