

RAYCHEM SURGE ARRESTERS CPA FOR LINK BOXES OR DIRECTLY BURIED UNDERGROUND

KEY FEATURES

- High-voltage cable sheath protection
- Robust TE design using Raychem high quality insulating materials (EVA)
- Meets standard IEC600099-4

TE Connectivity (TE) offers the Raychem product family of Cable Protections Arresters (CPA) designed for cable sheath protection. The demand for longer underground cables and higher load current capacity have increased and this requires new methods of loss prevention. Reliability for utilities of their lines is more important today, due to factory/office equipment sensitivity and costly outages. Therefore surge protection of these cable investments is more critical.

The main purpose of the cable sheath arrester is to protect the outer metal sheath of the cable from electrical stresses caused during transient events. Most cables today have a metallic sheath where voltage is induced onto it from the primary conductor and the current flows directly to earth, if they are earthed and a loop is created. There are two issues: losses and temperature rise of the cable.

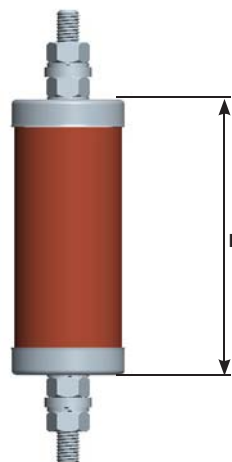
A common means of reducing the losses in a cable system is segmenting to interrupt the flow of induced sheath current, it is also a requirement to limit the induced voltage on the sheath during transients. There are various ways of limiting losses although, cross-bonding on cable systems is considered the most effective and requires cable sheath surge protection.

Customers can count on consistent, high quality products, driven by TE's proven innovation and backed by our extraordinary customer support.

Raychem Surge Arresters CPA



TE's high-voltage cable sheath protection system CPA is designed to the specific requirements in cable sheath protection. TE employ material scientists that test all materials used in our products. This is to ensure that the material can withstand harsh environments even before we design them into our products, where further product testing occurs.



CPA	Height L (mm)
CPA-01	85
CPA-02	95
CPA-03	107
CPA-04	107
CPA-05	115
CPA-06	137
CPA-07	144
CPA-08	151

General Technical Data	
CPA-xx series	1-8kV Uc
Rated discharge current (8/20 μ s)	10 kA
Line discharge class according to IEC 60099-4	Class 1, 2, 3
Operating duty impulse withstand current (4/10 μ s)	100 kA
Long duration current impulse (2000 μ s)	400 A
10 second temporary overvoltage (UTOV/UC)	1.30
Energy	line discharge impulse high current impulse
	2.0 kJ/7kV Uc 3.2 kJ/kV Uc

Mechanical Strength Data	
Cantilever	200 Nm
Tensile	1000 N
Torque	58 Nm

Protective Characteristics									
CPA	UC kV	Ur kV	Ures in kV when tested to impulse waveforms						
			Lightning (8/20 μ s)				Steep lightning (1/20 μ s)	Switching (30/60 μ s)	
			5kA	10kA	20kA	40kA	10kA	125A	500A
CPA-01	1	1.25	3.07	3.30	3.63	4.17	3.57	2.43	2.60
CPA-02	2	2.50	6.13	6.60	7.27	8.33	7.13	4.87	5.20
CPA-03	3	3.75	9.24	9.93	11.0	12.5	10.7	7.33	7.82
CPA-04	4	5.00	12.3	13.2	14.6	16.6	14.2	9.77	10.4
CPA-05	5	6.25	15.4	16.6	18.2	20.8	17.8	12.2	13.0
CPA-06	6	7.50	18.5	19.9	21.9	24.9	21.3	14.7	15.6
CPA-07	7	8.75	21.6	23.2	25.5	29.1	24.9	17.1	18.2
CPA-08	8	10.0	24.6	26.5	29.2	33.2	28.4	19.5	20.8

Uc: Continuous Voltage; Ur: Rated Voltage; Ures: Residual Voltage

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