

Epoxy Mica Coupling Capacitors

Partial Discharge Sensors

Versatile and Reliable Protection

Dynamic Ratings' Epoxy Mica Coupling Capacitor is a versatile partial discharge sensor commonly used to detect PD in many applications including generators, motors, switchgear, iso-phase bus ducts, and transformers. Three voltage levels are available: 8, 16 and 28kV.







Features

The Epoxy Mica Coupling Capacitor uses high grade natural mica as the dielectric which gives its exceptional electrical endurance and thermal stability under harsh operating conditions. The design electric strength is 775 volts per mil, which gives it exceptional voltage endurance properties plus noise and corona free operation desired for sensitive partial discharge measurements.

The epoxy resin used in the capacitors for casting is specifically designed for high temperature high voltage insulator applications. This material provides excellent insulation properties, mechanical strength and superior resistance to chemicals including concentrated acids. It has superior arc resistance properties and will not char when exposed to a high voltage arc as compared to standard electrical grade epoxy materials which will leave a carbon char mark. It meets UL 94V-0 requirements for fire resistance and self-extinguishing characteristics.

Safety Advantages

Protection is located at the sensor, each sensor is grounded at the point of installation. This design approach reduces the exposure of testing personnel to a high voltage electrical shock if the protection within the termination box fails. Our design allows for ease of installation and reduces the risk of higher-than-planned signal attenuation due to improper installation.

Our natural glazed surface prevents absorption of moisture and other contaminants and thus maintains the dielectric property of the sensor. The molded surface guards against surface tracking.

Uniformity in the capacitive layers and improved dielectric strength are achieved through the use of capacitive layers produced exclusively from virgin mica splitting.

Improved reliability is achieved by using a high number of mica sections in the assembly. The increased number of capacitive layers reduces the electrical stress across each layer.



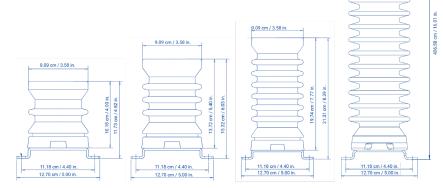


Product Specifications				
Voltage Endurance Test (UL 61010 A-1) - 38 kV:	81 kVac for 60 seconds			
Voltage Endurance Test (UL 61010 A-1) - 28 kV:	59.6 kVac for 60 seconds			
Voltage Endurance Test (UL 61010 A-1) - 16 kV:	34.56 kVac for 60 seconds			
Voltage Endurance Test (UL 61010 A-1) − 8 kV:	21.44 kVac for 60 seconds			
Capacitance Rating:	80 pF +/- 4 pF			
PDEV Sensitivity (ASTM D1868 and IEC 60270):	+/- 1pC			
Bandwidth:	0.5 MHz to 500 MHz (-3 dB)			
Operating Temperature Range:	-50°C to 150°C/-59°F to 302°F			
Calculated Life (IEEE 930-1987):	>60,000 years			
Dielectric Strength:	775 V/mil			
Electrical Tracking Resistance Test:	Meets ANSI/IEEE C37.20.2			
Hazardous Location Certification:	Underwriters Lab (UL) Certified for normal and hazardous environments			
Reliability Requirements:	Meets all reliability requirements in IEC TS 60034-27-2 and IEEE 1434			

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Part Number	Voltage Rating	AC Hipot Test	BIL	Description		
CC-08-K	8 kV	20 kV	75 kV	Each Coupling Capacitor kit contains:		
CC-16-K	16 kV	36 kV	100 kV	1 - Mounting Bracket 1 - Silicone rubber insulating boot		
CC-28-K	28 kV	57 kV	175 kV	1 - 1 m / 3 ft HV jumper cable (high temp silicone) with lugs.		
CC-38-K	38kV	80 kV	120 kV	1 - Mounting hardware kit 1 - Open Circuit Protection		

^{*}Coupling Capacitors for new installations are typically ordered 1 kit per phase. Customers typically order 3 kits.







Request a quote from your regional office.

An ISO 9001, ISO 14001, ISO 27001, ISO 45001 Certified Company.

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^{*}Coaxial Cable not included.

^{*}Contact your regional office to request a quote.