

# **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.



ASSET HEALTH SOLUTIONS



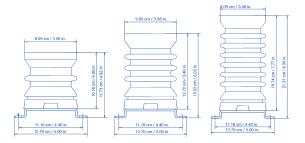
#### **Product Specifications** Voltage Endurance Test (UL 61010 A-1) - 28 kV: 59.6 kVac for 60 seconds Voltage Endurance Test (UL 61010 A-1) - 16 kV: 34.56 kVac for 60 seconds Voltage Endurance Test (UL 61010 A-1) - 8 kV: 21.44 kVac for 60 seconds 80 pF +/- 4 pF **Capacitance Rating:** PDEV Sensitivity (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 Underwriters Lab (UL) Certified for normal and hazardous **Hazardous Location Certification:** environments Meets all reliability requirements in IEC TS 60034-27-2 and IEEE **Reliability Requirements:**

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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:  1 - Mounting Bracket	
CC-16-K	16 kV	36 kV	100 kV	1 - Silicone rubber insulating boot 1 - 1 m / 3 ft HV jumper cable (high temp silicone) with lugs.	
CC-28-K	28 kV	57 kV	175 kV	1 - Mounting hardware kit	

<sup>\*</sup>Coupling Capacitors for new installations are typically ordered 1 kit per phase. Customers typically order 3 kits.

<sup>\*</sup>Contact your regional office to request a quote.







## **Local Contact:**



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<sup>\*</sup>Coaxial Cable not included.