



*The Safest
Coupling Capacitor
on the market*

EPOXY MICA COUPLING CAPACITORS TYPE DR-EMC

*Improving Plant and
Equipment Reliability
through Innovation
and Service*



Dynamic Ratings offers a full complement of Epoxy Mica coupling capacitors. Typically the coupling capacitors are connected at the line terminal of motors and generators and in switch gear. Three voltage levels are available: 8, 16 and 28 kV.

The epoxy resin used in the capacitors is specifically designed for high voltage insulator applications. This material provides excellent insulation properties, high mechanical properties and superior resistance to chemicals including concentrated acids. The epoxy has superior arc resistance as compared to standard electrical grade epoxy materials and meets UL 94/V-0 requirements.

It is desired to have the capacitors located as close to the winding as possible. This will reduce the attenuation effect. For more information about attenuation of PD signals, read our Application Guide "Importance of Bandwidth and Signal Attenuation". On Hydro Generators, additional capacitors are installed on the ring bus at the location of each phase group.

The most common value of capacitance in the market is 80 pF. 500 pF have been successfully used for motors below 6kV. 1000 pF and higher have not found wide acceptance for on-line monitoring, but are routinely used for laboratory testing (under controlled conditions).

- Couplers are available from many suppliers, but several features are very important:
- Capacitor material used must be of a virgin mica splitting.
- Number of mica sections should be as high as possible to reduce electrical stress.

Meets or Exceeds the following Specifications:

- Capacitance: 80 pF + 3 pF
- Temperature Range: - 50 C to 150 C
- Diameter (mm/inch): 91 / 3.5
- Add 30 mm to height for the mounting base
- Meets ANSI/IEEE C37.20.2) Electrical tracking Resistance
- Easily withstands 30 kV for 1500 hours (IEEE 1043) Voltage Endurance Test
- Sensitivity: 1 pC
- Frequency Range: 0.5 MHz to 500 MHz
- Dielectric Strength: 775 V/mil
- Insulating boots are provided to reduce installation time since no taping is required.
- High Temperature Silicone jumper cable is provided for connection to the high voltage. Resists cracking and is extremely flexible compared to standard jumper cable.
- No termination box required since capacitors are grounded and protection at the point of installation.

- The electrical protection circuits should be installed at the capacitor and the capacitor must be grounded at the point of installation. By having the capacitor grounded at the termination box (as many competitors do) it will place testing personnel at risk to a high voltage electrical shock if the protection within the termination box has failed. Also, this allows for easier installation of the system and reduces the risk of higher than planned signal attenuation due to improper install ation.
- The capacitor surface must not be machined. Some manufactures pour their molds

in a cylindrical form and then machine the skirts. This breaks the glazed surface of the casting and causes a rough surface which is porous. High humidity, moisture, dirt and grease can then be easily absorbed into the capacitor. This contamination will then decrease the dielectric ability of the capacitor.

All of these factors should be considered when selecting the best capacitor for your application. By looking at the simple differentiation Dynamic Ratings offers, you will quickly see that Dynamic Ratings has the safest Coupling Capacitor in the market.

Voltage Rating (kV)	AC Hipot (kV)	BIL (kV)	Height (mm/ inch)	Mass (kg)
8	20	75	86/3.38	0.95
16	40	100	126/5.7	1.4
28	65	175	185/7.25	2.1