

# **Ultra-high Voltage Ceramic Capacitors**

Molded type with metal terminals For distribution lines

FD(Eac: 10 to 25kV) series

Issue date: June 2011

• All specifications are subject to change without notice.

• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

## Ultra-high Voltage Ceramic Capacitors Molded Type with Metal Terminals FD Series

### FOR HIGH VOLTAGE POWER CIRCUIT/AC HEAVY DUTY

#### Temperature range: -30 to +85°C/Capacitance temperature characteristics: Y5P (±10%)

### **CLASS 2 HIGH DIELECTRIC**

Molded from resins that provide outstanding insulation and moisture resistance, these capacitors are ideal for high-voltage power circuits in electrical power transmission and receiving devices.

#### FEATURES

- They are compact in size and exhibit excellent low-loss, lowdistortion characteristics.
- Capacitance values are largely unaffected by variations in applied voltage.
- Internal screw thread design simplifies mounting requirements.

#### APPLICATIONS

- High voltage surge absorbers, gas circuit breakers in electrical power transmission and receiving devices, and lightning arresters.
- Voltage distribution elements in high-voltage measuring devices.
- Impedance matching in transformers and high-voltage AC circuits.

#### FD-9AU to FD-16AU



#### CAPACITANCE/ELECTRICAL CHARACTERISTICS/DIMENSIONS

#### Withstand Insulation AC corona starting Dimensions (mm) Capacitance Internal Part No. Application voltage voltage resistance (pF)±10% øD Т L ød screw Erms(kV) min. [3PC\* Erms(kV) (MΩ)min. FD-9AU 100 15 10,000 12 16 15 27 5 ISO M3 FD-10AU 250 15 10,000 12 27 ISO M3 21 15 5 AC.10kVr.m.s. FD-11AU 500 15 10.000 12 28 15 27 5 ISO M3 FD-12AU 1,000 15 10,000 12 38 15 27 5 ISO M3 FD-16AU 250 20 10,000 16 26 18.5 30.5 5 ISO M3 23.5 AC 13kVrms 500 10 FD-18AU 20 10.000 16 34 27.5 ISO M4 FD-20AU 1,000 20 10,000 16 48 23.5 27.5 15 ISO M5 FD-22AU 250 30 10.000 24 30 29 33 10 ISO M4 AC.20kVr.m.s. FD-24AU 500 30 24 40 29 33 ISO M5 10.000 15 FD-33AU 250 40 10,000 32 34 35 39 10 ISO M4 AC.25kVr.m.s. 500 40 32 48 35 39 15 ISO M5 FD-36AU 10.000

\* PC:Pico coulomb

• In addition to the above, products are available that can be used in SF6 gas without modification (S type: molded with epoxide resin; alumina filler).

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#### **Conformity to RoHS Directive**







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#### TYPICAL CAPACITANCE CHARACTERISTICS CAPACITANCE vs. TEMPERATURE CHARACTERISTICS



CAPACITANCE vs. AC VOLTAGE CHARACTERISTICS



#### PRECAUTIONS

#### (1) During transportation and storage

- Do not transport or store where the capacitor will be exposed to high temperature or high humidity.
- Do not expose to poisonous gases such as H2SO4, HCl, or HNO3.
- Avoid excessive impact such as that caused by falling.

#### (2) During operation

- Avoid contact with electrolytes such as perspiration. Do not touch with bare hands.
- Avoid excessive impact such as that caused by falling.
- Do not apply solder to stud terminals.
- Do not re-machine the terminals.

#### (3) Usage

• Make sure that the capacitor is not exposed to radiant heat from chambers or transformers.

• For more information about products with other capacitance or other data, please contact us.

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