

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.
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Ultra-high Voltage Ceramic Capacitors

Molded Type with Metal Terminals FD Series

Conformity to RoHS Directive

FOR HIGH VOLTAGE POWER CIRCUIT/AC HEAVY DUTY

Temperature range: -30 to $+85^{\circ}\text{C}$ /Capacitance temperature characteristics: Y5P ($\pm 10\%$)

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

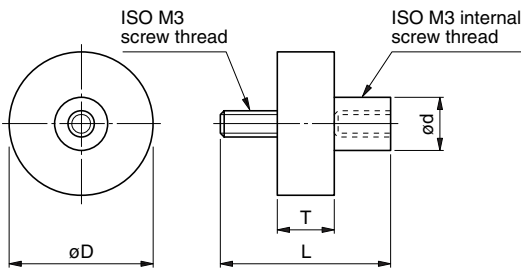
- They are compact in size and exhibit excellent low-loss, low-distortion characteristics.
- Capacitance values are largely unaffected by variations in applied voltage.
- Internal screw thread design simplifies mounting requirements.

APPLICATIONS

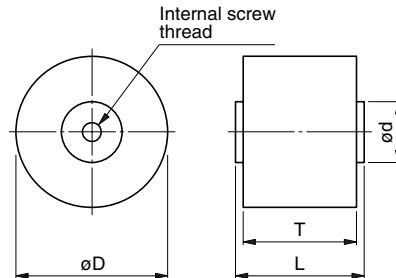
- High voltage surge absorbers, gas circuit breakers in electrical power transmission and receiving devices, and lightning arresters.
- Voltage distribution elements in high-voltage measuring devices.
- Impedance matching in transformers and high-voltage AC circuits.



FD-9AU to FD-16AU



FD-18AU to FD-36AU



CAPACITANCE/ELECTRICAL CHARACTERISTICS/DIMENSIONS

Part No.	Application	Capacitance (pF) $\pm 10\%$	Withstand voltage Erms(kV)	Insulation resistance (M Ω)min.	AC corona starting voltage Erms(kV) min. [3PC*]	Dimensions (mm)				Internal screw
						ϕD	T	L	ϕd	
FD-9AU	AC.10kVr.m.s.	100	15	10,000	12	16	15	27	5	ISO M3
FD-10AU		250	15	10,000	12	21	15	27	5	ISO M3
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	AC.13kVr.m.s.	250	20	10,000	16	26	18.5	30.5	5	ISO M3
FD-18AU		500	20	10,000	16	34	23.5	27.5	10	ISO M4
FD-20AU		1,000	20	10,000	16	48	23.5	27.5	15	ISO M5
FD-22AU	AC.20kVr.m.s.	250	30	10,000	24	30	29	33	10	ISO M4
FD-24AU		500	30	10,000	24	40	29	33	15	ISO M5
FD-33AU	AC.25kVr.m.s.	250	40	10,000	32	34	35	39	10	ISO M4
FD-36AU		500	40	10,000	32	48	35	39	15	ISO M5

* PC: Pico coulomb

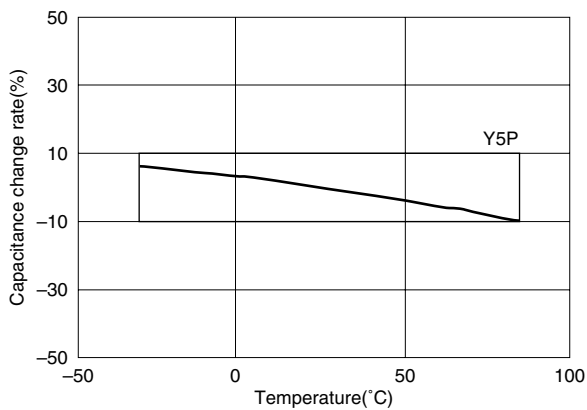
• In addition to the above, products are available that can be used in SF6 gas without modification (S type: molded with epoxide resin; alumina filler).

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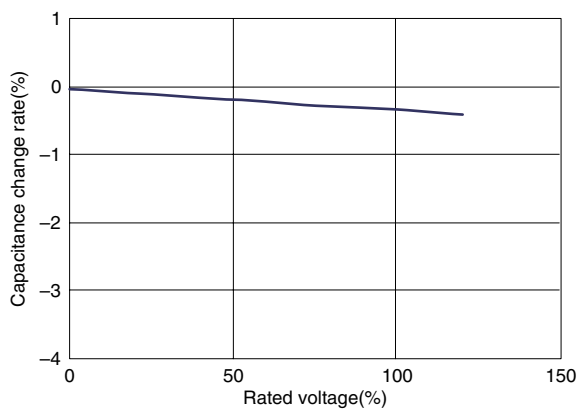
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TYPICAL CAPACITANCE CHARACTERISTICS

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 H_2SO_4 , HCl , or HNO_3 .
- 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.