

# 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

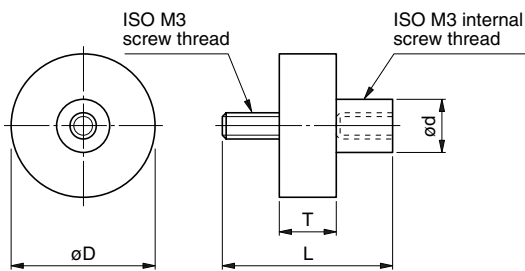
- They are compact in size and exhibit excellent low-loss, low-distortion characteristics.
- Capacitance values are largely unaffected by variations in applied voltage.
- Internal screw thread design simplifies mounting requirements.

### 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 $\Omega$ )min.	AC corona starting voltage Erms(kV) min. [3PC*]	Dimensions (mm)				Internal screw
						$\phi D$	T	L	$\phi d$	
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	AC.13kVr.m.s.	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
FD-18AU		500	20	10,000	16	34	23.5	27.5	10	ISO M4
FD-20AU	AC.20kVr.m.s.	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
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

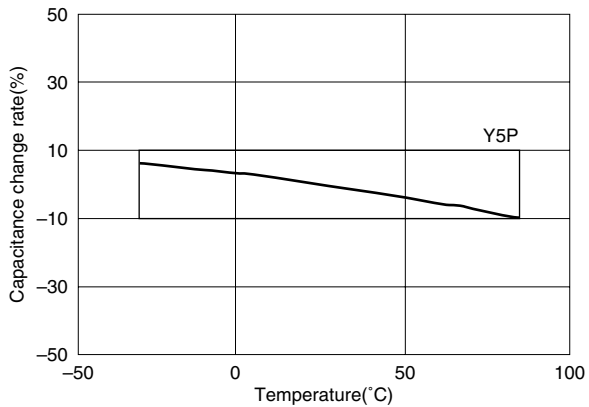
• In addition to the above, products are available that can be used in SF6 gas without modification (S type: molded with epoxide resin; alumina filler).

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## 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<sub>2</sub>SO<sub>4</sub>, HCl, or HNO<sub>3</sub>.
- 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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