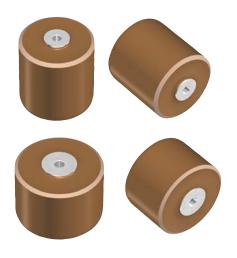


Ultra high voltage ceramic capacitors

With metal terminals

For distribution lines

FD/MD series





REMINDERS FOR USING THESE PRODUCTS

(1) During transportation and storage

Do not transport or store where the prodcuts 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 prodcuts are not exposed to radiant heat from chambers or transformers.

(4) Others

The products listed on this catalog are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property.

If you intend to use the products in the applications listed below or if you have special requirements exceeding the range or conditions set forth in the each catalog, please contact us.

- (1) Aerospace/aviation equipment
- (2) Transportation equipment (cars, electric trains, ships, etc.)
- (3) Medical equipment
- (4) Power-generation control equipment
- (5) Atomic energy-related equipment
- (6) Seabed equipment
- (7) Transportation control equipment

- (8) Public information-processing equipment
- (9) Military equipment
- (10) Electric heating apparatus, burning equipment
- (11) Disaster prevention/crime prevention equipment
- (12) Safety equipment
- (13) Other applications that are not considered general-purpose applications

When designing your equipment even for general-purpose applications, you are kindly requested to take into consideration securing protection circuit/device or providing backup circuits in your equipment.



Ultra high voltage ceramic capacitors

Product compatible with RoHS directive

With metal terminals For distribution lines

Overview of the FD/MD series

FEATURES

- FD series (rated voltage Eac:10 to 25 kV) and MD series (rated voltage Eac:20kV) available
- Molded type metal screw terminals for easy mounting
- O Uses high-reliability mold resin
- O Extremely stable temperature characteristics

APPLICATION

Distribution line switches (zero-phase detection, demarcation point), traded volume detection

■ OPERATING TEMPERATURE RANGE, PRODUCT WEIGHT

		Temperat	Individual weight	
Part No.	Sub part No.	Operating temperature (°C)	Storage temperature (°C)	(g)
FD-9A	60710YP101K4AAA	-30 to +85	-30 to +85	10
FD-10A	60715YP251K4AAAU	-30 to +85	-30 to +85	16
FD-11A	60723YP501K4AAAU	-30 to +85	-30 to +85	30
FD-12A	60731YP102K4AAAU	−30 to +85	-30 to +85	54
FD-16A	60718YP251K4CAAU	-30 to +85	-30 to +85	31
FD-18A	60726YP501K4CAAU	-30 to +85	-30 to +85	71
FD-20A	60737YP102K4CAAU	-30 to +85	-30 to +85	141
FD-22A	60723YP251K4DAA	-30 to +85	-30 to +85	67
FD-24A	60732YP501K4DAAU	-30 to +85	-30 to +85	127
FD-33A	60726YP251K4EAAU	-30 to +85	-30 to +85	107
FD-36A	60736YP501K4EAAU	-30 to +85	-30 to +85	117
MD-1A	60729CH500J3KAA	-30 to +85	-30 to +85	101

[•] Secondary-molded AU type is also available.

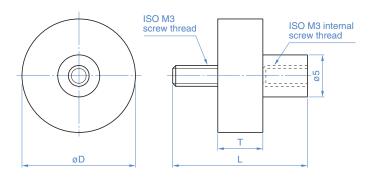
RoHS Directive Compliant Product: See the following for more details. https://product.tdk.com/info/en/environment/rohs/index.html



FD series

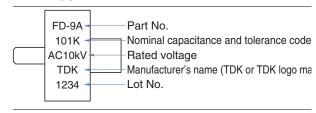
■SHAPE & DIMENSIONS

FD-9A to FD-16A

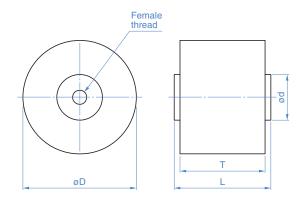


Part No.	Sub part No.	øD (mm)	T (mm)	L (mm)
FD-9A	60710YP101K4AAA	16	15	27
FD-10A	60715YP251K4AAAU	21	15	27
FD-11A	60723YP501K4AAAU	28	15	27
FD-12A	60731YP102K4AAAU	38	15	27
FD-16A	60718YP251K4CAAU	26	18.5	30.5

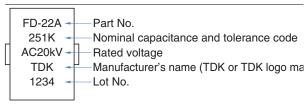
MARKINGS



FD-18A to FD-36A



MARKINGS



Part No.	Sub part No.	øD	øD T		ød	Internal screw
r urt ivo.	oub part ito.	(mm)	(mm)	(mm)	(mm)	internal solew
FD-18A	60726YP501K4CAAU	34	23.5	27.5	10	ISO M4
FD-20A	60737YP102K4CAAU	48	23.5	27.5	15	ISO M5
FD-22A	60723YP251K4DAA	30	29	33	10	ISO M4
FD-24A	60732YP501K4DAAU	40	29	33	15	ISO M5
FD-33A	60726YP251K4EAAU	34	35	39	10	ISO M4
FD-36A	60736YP501K4EAAU	48	35	39	15	ISO M5



60723YP251K4DAAFD series

■ ELECTRICAL CHARACTERISTICS

CHARACTERISTICS SPECIFICATION TABLE

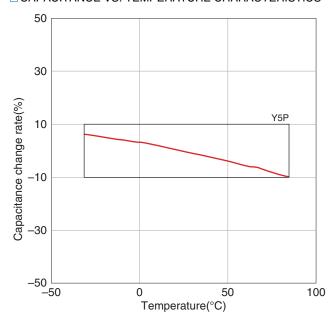
Class 2 (Temperature stable)

Temperature characteristics: Y5P(-30 to +85°C, ± 10 %)

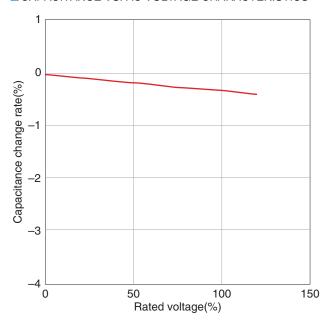
Part No.	Sub part No.	Rated voltage	Capacitance	Supported insulation classes	Withstanding voltage [1min, in insulating liquid]	Dissipation factor(tanδ)		AC corona starting voltage [3PC*]
		(kVAC)	(pF)		(kVAC)	(%) max.	(M Ω) min.	(kVAC) min.
FD-9A	60710YP101K4AAA	10	100±10%	_	15	0.2	10000	12
FD-10A	60715YP251K4AAAU	10	250±10%	_	15	0.2	10000	12
FD-11A	60723YP501K4AAAU	10	500±10%	_	15	0.2	10000	12
FD-12A	60731YP102K4AAAU	10	1,000±10%	_	15	0.2	10000	12
FD-16A	60718YP251K4CAAU	13	250±10%	_	20	0.2	10000	16
FD-18A	60726YP501K4CAAU	13	500±10%	_	20	0.2	10000	16
FD-20A	60737YP102K4CAAU	13	1,000±10%	_	20	0.2	10000	16
FD-22A	60723YP251K4DAA	20	250±10%	6号A	30	0.2	10000	24
FD-24A	60732YP501K4DAAU	20	500±10%	6号A	30	0.2	10000	24
FD-33A	60726YP251K4EAAU	25	250±10%	10号A	40	0.2	10000	32
FD-36A	60736YP501K4EAAU	25	500±10%	10号A	40	0.2	10000	32

^{*} PC: Pico coulomb.

☐ CAPACITANCE VS. TEMPERATURE CHARACTERISTICS



□ CAPACITANCE VS. AC VOLTAGE CHARACTERISTICS



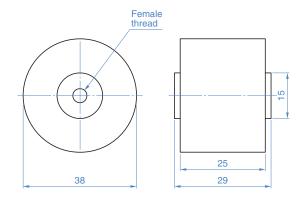
[•] Secondary-molded AU type is also available.

A Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading.



MD series

SHAPE & DIMENSIONS



MD-1A - Part No

MD-1A Part No.
5 0 0 J Nominal capacitance and tolerance c
AC20kV Rated voltage
T D K Manufacturer's name (TDK or TDK k
1 2 3 4 Lot No.

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS SPECIFICATION TABLE

Class 1 (low dielectric)

Temperature characteristics: $C0H(-55 \text{ to } +125^{\circ}C, 0\pm60ppm/^{\circ}C)$

Part No.	Sub part No.	Rated voltage	Capacitance	Supported insulation classes	Withstanding voltage [1min, in insulating liquid]	Dissipation factor(tanδ)		AC corona starting voltage [3PC*]
		(kVAC)	(pF)		(kVAC)	(%) max.	(M Ω) min.	(kVAC) min.
MD-1A	60729CH500J3KAA	20	50±5%	6号A	30	0.2	10000	24

^{*} PC : Pico coulomb.

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B58031I5105M062 Z63000Z2910Z001Z35 V30BZ682M1SX V30BZ102M6SX V30BZ103M1SX 116XK102M100TT GH015Z101MA6N
GH0258331MA6N B58033I5206M1 B58035U5205M062 B58035U5305M062 B58035U7105M062 B58035U7155M062
B58035U9504M062 B58035U9754M062 751P25W224MJ4 V30BZ472M1SX KCM55LR72A475KH01K KCM55QR71E226KH01K
KCM55QR71H106KH01K KCM55QR71J106KH01K KCM55QR72A685KH01K KCM55QR7YA176KH01K KCM55TR72A106MH01K
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