

High Voltage Class 1 Ceramic DC Disc Capacitors, Screw Terminal Mounting ,10 kV_{DC} to 40 kV_{DC}



| QUICK REFERENCE DATA | | | | | |
|----------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| DESCRIPTION | VALUE | | | | |
| Ceramic Class | 1 | | | | |
| Ceramic Dielectric | N4700 | | | | |
| Type | 715C10 KT### | 715C15 KT### | 715C20 KT### | 715C30 KT### | 715C40 KT### |
| Voltage (V _{DC}) | 10 000 | 15 000 | 20 000 | 30 000 | 40 000 |
| Min. Capacitance (pF) | 560 | 370 | 280 | 190 | 140 |
| Max. Capacitance (pF) | 8000 | 5300 | 4000 | 2700 | 2000 |
| Mounting | Screw terminal | | | | |

DIELECTRIC STRENGTH

150 % of rated voltage, charging current limited to 50 mA

DISSIPATION FACTOR $\tan \delta$

$\leq 2 \times 10^{-3}$ (1 kHz)

INSULATION RESISTANCE

Min. 200 000 M Ω or 1000 Ω F min. at 25 °C

CORONA LIMIT

< 5 pC at rated AC voltage

OPERATING TEMPERATURE RANGE

- 30 °C to + 85 °C

FEATURES

- Low dissipation factor of 0.2 % at 1 kHz
- N4700 (T3M) Class 1, strontium-based ceramic dielectric
- Negligible piezoelectric/electrostrictive effect
- Low inductance
- High insulation resistance
- Epoxy coating
- Screw terminal mounting
- Ceramic singlelayer capacitor

APPLICATIONS

- High voltage power supplies
- CO₂ lasers
- X-ray equipment
- Welding equipment
- Industrial

CAPACITANCE RANGE

140 pF to 8 nF

RATED VOLTAGE ⁽¹⁾

- 10 kV_{DC} (3.5 kV_{RMS})
- 15 kV_{DC} (5.3 kV_{RMS})
- 20 kV_{DC} (7.0 kV_{RMS})
- 30 kV_{DC} (10.6 kV_{RMS})
- 40 kV_{DC} (14 kV_{RMS})

Note

⁽¹⁾ All kV_{RMS} values up to 60 Hz

CERAMIC DIELECTRIC

N4700 (Class 1)

MATERIAL

Capacitor elements made from Class 1 ceramic in a molded epoxy case. Screw terminals: brass, silver plated

MARKING

Type designator, capacitance value, rated DC voltage, ceramic material code, production date code, Cera-Mite logo

POWER DISSIPATION

Limit to 25 °C rise above ambient, measured on case

CAPACITANCE TOLERANCES

$\pm 20 \%$

DIMENSIONS in millimeters (inches)

Notes

- (1) Screw torque limit must be 12 inch pounds. Use #8-32, 3/16" long screw to prevent bottoming
 (2) To order M5 terminals add "M5" suffix to model number, use screw length of 5 mm to prevent bottoming

| ORDERING INFORMATION | | | | |
|----------------------|---------------------|-------------------|-----------|---------|
| 715C15KTD33 | 15 kV _{DC} | 3300 pF | ± 20 % | N4700 |
| MODEL | RATED VOLTAGE | CAPACITANCE VALUE | TOLERANCE | CERAMIC |

| SAP PART NUMBER, ELECTRICAL, AND DIMENSIONAL DATA | | | | | | | |
|---|---------|-------------------------|-----------------------------------|------------------------------------|------------------|---------------------------------------|---|
| MODEL | CERAMIC | CAPACITANCE VALUES (pF) | RATED VOLTAGE (kV _{DC}) | RATED VOLTAGE (kV _{RMS}) | D ± 1 mm (0.04") | H WITH #8-32 TERMINALS ± 1 mm (0.04") | H WITH M5 METRIC TERMINALS ± 1 mm (0.04") |
| 715C10KT### | | | | | | | |
| 715C10KTT56 | N4700 | 560 | 10 | 3.5 | 21 (0.83) | 18 (0.70) | n/a |
| 715C10KTD10 | | 1000 | | | 25 (1.00) | | |
| 715C10KTD12 | | 1200 | | | 25 (1.00) | | |
| 715C10KTD22 | | 2200 | | | 38 (1.50) | | |
| 715C10KTD28 | | 2800 | | | 38 (1.50) | | 19 (0.76) |
| 715C10KTD50 | | 5000 | | | 48 (1.89) | | |
| 715C10KTD80 | | 8000 | | | 60 (2.36) | | |
| 715C15KT### | | | | | | | |
| 715C15KTT37 | N4700 | 370 | 15 | 5.3 | 21 (0.83) | 20 (0.79) | n/a |
| 715C15KTD10 | | 1000 | | | 32 (1.25) | | n/a |
| 715C15KTD19 | | 1900 | | | 38 (1.50) | | 22 (0.85) |
| 715C15KTD33 | | 3300 | | | 48 (1.89) | | |
| 715C15KTD53 | | 5300 | | | 60 (2.36) | | |
| 715C20KT### | | | | | | | |
| 715C20KTT28 | N4700 | 280 | 20 | 7 | 21 (0.83) | 23 (0.89) | n/a |
| 715C20KTT56 | | 560 | | | 25 (1.00) | | n/a |
| 715C20KTD10 | | 1000 | | | 32 (1.25) | | 24 (0.95) |
| 715C20KTD14 | | 1400 | | | 38 (1.50) | | |
| 715C20KTD25 | | 2500 | | | 48 (1.89) | | |
| 715C20KTD40 | | 4000 | | | 60 (2.36) | | |
| 715C30KT### | | | | | | | |
| 715C30KTT19 | N4700 | 190 | 30 | 10.6 | 21 (0.83) | 28 (1.09) | n/a |
| 715C30KTT40 | | 400 | | | 32 (1.25) | | n/a |
| 715C30KTT59 | | 590 | | | 32 (1.25) | | 29 (1.15) |
| 715C30KTT94 | | 940 | | | 38 (1.50) | | |
| 715C30KTD17 | | 1700 | | | 48 (1.89) | | |
| 715C30KTD27 | | 2700 | | | 60 (2.36) | | |
| 715C40KT### | | | | | | | |
| 715C40KTT14 | N4700 | 140 | 40 | 14 | 21 (0.83) | 31 (1.22) | n/a |
| 715C40KTT44 | | 440 | | | 32 (1.25) | | 32 (1.28) |
| 715C40KTT70 | | 700 | | | 38 (1.50) | | |
| 715C40KTD10 | | 1000 | | | 44 (1.75) | | |
| 715C40KTD13 | | 1300 | | | 48 (1.89) | | |
| 715C40KTD20 | | 2000 | | | 60 (2.36) | | |



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Телефон: 8 (812) 309-75-97 (многоканальный)

Факс: 8 (812) 320-03-32

Электронная почта: ocean@oceanchips.ru

Web: <http://oceanchips.ru/>

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, д. 2, корп. 4, лит. А