

## High Voltage Class 1 Ceramic DC Disc Capacitors, Screw Terminal Mounting ,10 kV<sub>DC</sub> to 40 kV<sub>DC</sub>



| QUICK REFERENCE DATA       |                 |                 |                 |                 |                 |
|----------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| DESCRIPTION                | VALUE           |                 |                 |                 |                 |
| Ceramic Class              | 1               |                 |                 |                 |                 |
| Ceramic Dielectric         | N4700           |                 |                 |                 |                 |
| Type                       | 715C10<br>KT### | 715C15<br>KT### | 715C20<br>KT### | 715C30<br>KT### | 715C40<br>KT### |
| Voltage (V <sub>DC</sub> ) | 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 $\Omega$  or 1000  $\Omega$ 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
- CO<sub>2</sub> lasers
- X-ray equipment
- Welding equipment
- Industrial

### CAPACITANCE RANGE

140 pF to 8 nF

### RATED VOLTAGE <sup>(1)</sup>

- 10 kV<sub>DC</sub> (3.5 kV<sub>RMS</sub>)
- 15 kV<sub>DC</sub> (5.3 kV<sub>RMS</sub>)
- 20 kV<sub>DC</sub> (7.0 kV<sub>RMS</sub>)
- 30 kV<sub>DC</sub> (10.6 kV<sub>RMS</sub>)
- 40 kV<sub>DC</sub> (14 kV<sub>RMS</sub>)

#### Note

<sup>(1)</sup> All kV<sub>RMS</sub> 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 <sub>DC</sub> | 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 <sub>DC</sub> ) | RATED VOLTAGE (kV <sub>RMS</sub> ) | D ± 1 mm (0.04") | H WITH #8-32 TERMINALS ± 1 mm (0.04") | H WITH M5 METRIC TERMINALS ± 1 mm (0.04") |
| <b>715C10KT###</b>                                |         |                         |                                   |                                    |                  |                                       |   |
| 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)        |                                       |   |
| <b>715C15KT###</b>                                |         |                         |                                   |                                    |                  |                                       |   |
| 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)        |                                       |   |
| <b>715C20KT###</b>                                |         |                         |                                   |                                    |                  |                                       |   |
| 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)        |                                       |   |
| <b>715C30KT###</b>                                |         |                         |                                   |                                    |                  |                                       |   |
| 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)        |                                       |   |
| <b>715C40KT###</b>                                |         |                         |                                   |                                    |                  |                                       |   |
| 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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