

# High Voltage Class 2 Ceramic DC Disc Capacitors, Screw Terminal Mounting, 15 kV<sub>DC</sub> to 40 kV<sub>DC</sub>



## QUICK REFERENCE DATA

| DESCRIPTION                | VALUE           |                 |                 |                 |
|----------------------------|-----------------|-----------------|-----------------|-----------------|
| Ceramic Class              | 2               |                 |                 |                 |
| Ceramic Dielectric         | Y5U             |                 |                 |                 |
| Type                       | 715C15<br>DK### | 715C20<br>DK### | 715C30<br>DK### | 715C40<br>DK### |
| Voltage (V <sub>DC</sub> ) | 15 000          | 20 000          | 30 000          | 40 000          |
| Min. Capacitance (pF)      | 1500            | 500             | 500             | 300             |
| Max. Capacitance (pF)      | 10 000          | 6800            | 4700            | 3300            |
| Mounting                   | Screw terminal  |                 |                 |                 |

## DIELECTRIC STRENGTH

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

## DISSIPATION FACTOR $\tan \delta$

$\leq 20 \times 10^{-3}$  (1 kHz)

## INSULATION RESISTANCE

Min. 200 000 M $\Omega$  or 1000  $\Omega$ F min. at 25 °C

## CORONA LIMIT

< 5 pC at 50 % rated AC voltage

## OPERATING TEMPERATURE RANGE

- 30 °C to + 85 °C

## FEATURES

- Class 2 ceramic (Y5U)
- 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

100 pF to 10 nF

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

- 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> (14.0 kV<sub>RMS</sub>)

### Note

<sup>(1)</sup> All kV<sub>RMS</sub> up to 60 Hz

## CERAMIC DIELECTRIC

Y5U (Class 2)

## MATERIAL

Capacitor elements made from Class 3 ceramic in a molded epoxy case. Screw terminals: brass, silver plated

## MARKING

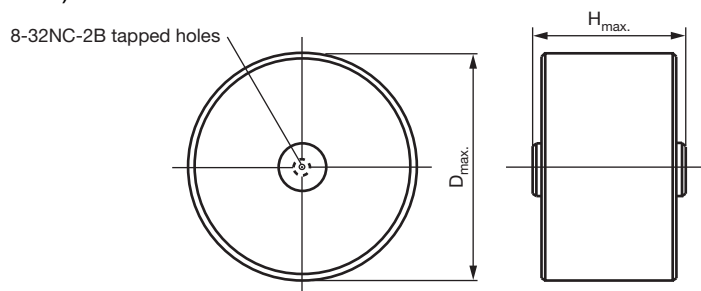
Type designator, capacitance value, rated DC voltage, ceramic material code, production date code, Cera-mite logo

## POWER DISSIPATION

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

## CAPACITANCE TOLERANCES

- 20 % to + 80 %

**DIMENSIONS** in inches (millimeters)

**Notes**

- Screw torque limit must be 12 inch pounds. Use #8-32, 3/16" long screw to prevent bottoming
- M5 metric terminals available on request, consult factory

**ORDERING INFORMATION**

|                    |                           |                   |                         |            |
|--------------------|---------------------------|-------------------|-------------------------|------------|
| <b>715C15DKD20</b> | <b>15 kV<sub>DC</sub></b> | <b>2000 pF</b>    | <b>- 20 % TO + 80 %</b> | <b>Y5U</b> |
| MODEL              | RATED VOLTAGE             | CAPACITANCE VALUE | TOLERANCE               | CERAMIC    |

**SAP PART NUMBER, ELECTRICAL, AND DIMENSIONAL DATA**

| MODEL       | CERAMIC | CAPACITANCE<br>VALUES<br>(pF) | RATED<br>VOLTAGE<br>(kV <sub>DC</sub> ) | RATED<br>VOLTAGE<br>(kV <sub>RMS</sub> ) | D <sub>max.</sub> | H <sub>max.</sub> |
|-------------|---------|-------------------------------|-----------------------------------------|------------------------------------------|-------------------|-------------------|
| 715C15DK### |         |                               |                                         |                                          |                   |                   |
| 715C15DKD15 | Y5U     | 1500                          | 15                                      | 5.3                                      | 26.7 (1.05)       | 22.9 (0.90)       |
| 715C15DKD20 |         | 2000                          |                                         |                                          | 33.0 (1.30)       |                   |
| 715C15DKD33 |         | 3300                          |                                         |                                          | 39.4 (1.55)       |                   |
| 715C15DKD47 |         | 4700                          |                                         |                                          | 33.0 (1.30)       |                   |
| 715C15DKS10 |         | 10 000                        |                                         |                                          | 45.7 (1.80)       |                   |
| 715C20DK### |         |                               |                                         |                                          |                   |                   |
| 715C20DKT50 | Y5U     | 500                           | 20                                      | 7.0                                      | 22.4 (0.88)       | 25.4 (1.00)       |
| 715C20DKD10 |         | 1000                          |                                         |                                          | 33.0 (1.30)       |                   |
| 715C20DKD13 |         | 1300                          |                                         |                                          | 33.0 (1.30)       |                   |
| 715C20DKD25 |         | 2500                          |                                         |                                          | 39.4 (1.55)       |                   |
| 715C20DKD33 |         | 3300                          |                                         |                                          | 45.7 (1.80)       |                   |
| 715C20DKD47 |         | 4700                          |                                         |                                          | 54.1 (2.13)       |                   |
| 715C20DKD68 |         | 6800                          |                                         |                                          | 61.5 (2.42)       |                   |
| 715C30DK### |         |                               |                                         |                                          |                   |                   |
| 715C30DKT50 | Y5U     | 500                           | 30                                      | 10.6                                     | 26.7 (1.05)       | 34.5 (1.36)       |
| 715C30DKD10 |         | 1000                          |                                         |                                          | 33.0 (1.30)       | 30.0 (1.18)       |
| 715C30DKD25 |         | 2500                          |                                         |                                          | 45.7 (1.80)       |                   |
| 715C30DKD33 |         | 3300                          |                                         |                                          | 54.1 (2.13)       |                   |
| 715C30DKD47 |         | 4700                          |                                         |                                          | 61.5 (2.42)       |                   |
| 715C40DK### |         |                               |                                         |                                          |                   |                   |
| 715C40DKT30 | Y5U     | 300                           | 40                                      | 14.0                                     | 22.4 (0.88)       | 34.5 (1.36)       |
| 715C40DKT50 |         | 500                           |                                         |                                          | 26.7 (1.05)       |                   |
| 715C40DKT78 |         | 780                           |                                         |                                          | 33.0 (1.30)       |                   |
| 715C40DKD10 |         | 1000                          |                                         |                                          | 39.4 (1.55)       |                   |
| 715C40DKD16 |         | 1600                          |                                         |                                          | 45.7 (1.80)       |                   |
| 715C40DKD25 |         | 2500                          |                                         |                                          | 54.1 (2.13)       |                   |
| 715C40DKD33 |         | 3300                          |                                         |                                          | 58.4 (2.30)       |                   |



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