Vishay Cera-Mite

# 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							
Туре	715C15 DK###	715C20 DK###	715C30 DK###	715C40 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 $\delta$

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

# **INSULATION RESISTANCE**

Min. 200 000 M $\Omega$  or 1000  $\Omega F$  min. at 25  $^{\circ} C$ 

#### **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 (1)

- 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

 $^{(1)}\,$  All kV  $_{RMS}$  up to 60 Hz

# **CERAMIC DIELECTRIC**

Y5U (Class 2)

#### **MATERIAL**

Capacitor elements made from Class 2 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**

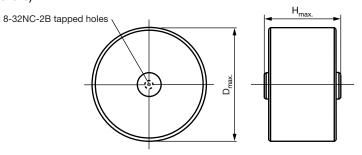
Limit to 25 °C rise above ambient, measured on case

#### **CAPACITANCE TOLERANCES**

-20 % to +80 %

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# **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							
715C15DKD20	15 kV <sub>DC</sub>	2000 pF	-20 % TO +80 %	Y5U			
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 <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		500		7.0	22.4 (0.88)	25.4 (1.00)	
715C20DKD10		1000			33.0 (1.30)		
715C20DKD13		1300	20		33.0 (1.30)		
715C20DKD25	Y5U	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		500	30	10.6	26.7 (1.05)	34.5 (1.36)	
715C30DKD10	Y5U	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		300			22.4 (0.88)	34.5 (1.36)	
715C40DKT50	Y5U	500	40	14.0	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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