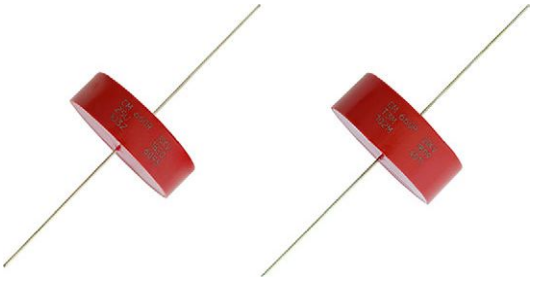
High Voltage Ceramic DC Disc Capacitors With Axial Leads, 10 kV_{DC} to 30 kV_{DC}



FEATURES

RoHS COMPLIANT

- Class 1 and class 2 ceramic
- High insulation resistance
- Epoxy encapsulated
- Wide capacitance range
- Ceramic singlelayer capacitor
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

LINKS TO ADDITIONAL RESOURCES

3D Models

QUICK REFERENCE DATA												
DESCRIPTION	VALUE											
Ceramic class	1				2				2			
Ceramic dielectric	N4700 (T3M)				X7R				Z5U			
Voltage (V_{DC})	10 000	15 000	20 000	30 000	10 000	15 000	20 000	30 000	10 000	15 000	20 000	30 000
Min. capacitance (pF)	470	390	220	180	180	100	100	100	1500	1000	680	470
Max. capacitance (pF)	2000	1500	1000	680	4700	3900	2700	2000	10 000	6800	5000	3300
Mounting	Axial											

MARKING

Capacitance value and tolerance, rated DC voltage, T/C code, production date code, CM mark.

MATERIAL

Capacitor elements made from class 1 or class 2 ceramic in a molded case, high temperature epoxy construction.

Leads: tinned copper clad steel.

DIELECTRIC STRENGTH

150 % of rated voltage (in dielectric fluid), charging current limited to 50 mA.

DISSIPATION FACTOR tan δ

N4700 (T3M): ≤ 2 x 10^{-3} (1 kHz)

X7R, Z5U: ≤ 20 x 10^{-3} (1 kHz)

INSULATION RESISTANCE

Min. 200 000 MΩ, at 180 V_{DC} or 1000 ΩF

OPERATING TEMPERATURE RANGE

-30 °C to +85 °C

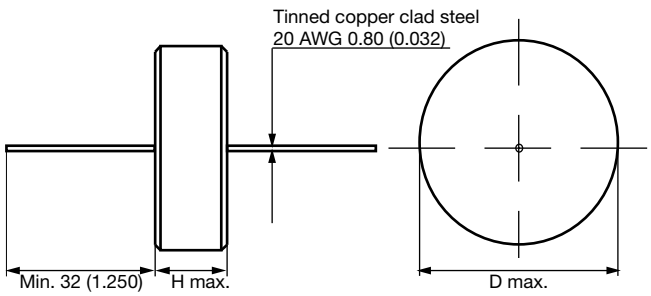
RATED VOLTAGE (1)

- 660R10A### 10 kV_{DC} (3.5 kV_{RMS})
- 660R15A### 15 kV_{DC} (5.6 kV_{RMS})
- 660R20A### 20 kV_{DC} (7.0 kV_{RMS})
- 660R30A### 30 kV_{DC} (10.6 kV_{RMS})

Note

(1) All kV_{RMS} values up to 60 Hz

DIMENSIONS in millimeters (inches)



ORDERING INFORMATION

660R30ACT47	30 kV_{DC}	470 pF	± 20 %	X7R
MODEL	RATED VOLTAGE	CAPACITANCE VALUE	TOLERANCE	CERAMIC

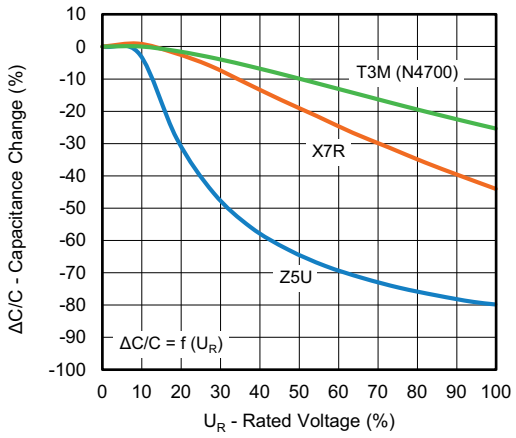
SAP NUMBER AND ELECTRICAL DATA

MODEL NUMBER	CERAMIC	CAP. VALUE (pF)	TOLERANCE (%)	RATED VOLTAGE (kV_{DC})	RATED VOLTAGE (kV_{RMS})	D MAX. (mm)	D MAX. (INCHES)	H MAX. (mm)	H MAX. (INCHES)
660R10AZ###									
660R10AZT47	N4700 (T3M)	470	± 20	10	3.5	21	0.83	13	0.50
660R10AZD10		1000				30	1.18		
660R10AZD20		2000				37	1.45		
660R10AC###									
660R10ACT18	X7R	180	± 20	10	3.5	21	0.83	13	0.50
660R10ACT22		220							
660R10ACT33		330							
660R10ACT47		470							
660R10ACT68		680							
660R10ACD10		1000							
660R10ACD15		1500				30	1.18		
660R10ACD22		2200							
660R10ACD33		3300							
660R10ACD47		4700				37	1.45		
660R10AE###									
660R10AED15	Z5U	1500	+ 80 / - 20	10	3.5	21	0.83	13	0.50
660R10AED22		2200							
660R10AED33		3300				30	1.18		
660R10AED47		4700							
660R10AED68		6800				37	1.45		
660R10AES10		10 000							
660R15AZ###									
660R15AZT39	N4700 (T3M)	390	± 20	15	5.3	21	0.83	15	0.59
660R15AZT82		820				30	1.18		
660R15AZD15		1500				37	1.45		
660R15AC###									
660R15ACT10	X7R	100	± 20	15	5.3	21	0.83	15	0.59
660R15ACT22		220							
660R15ACT33		330							
660R15ACT47		470							
660R15ACT68		680							
660R15ACD10		1000				30	1.18		
660R15ACD15		1500							
660R15ACD22		2200							
660R15ACD33		3300				37	1.45		
660R15ACD39		3900							

SAP NUMBER AND ELECTRICAL DATA									
MODEL NUMBER	CERAMIC	CAP. VALUE (pF)	TOLERANCE (%)	RATED VOLTAGE (kV_{DC})	RATED VOLTAGE (kV_{RMS})	D MAX. (mm)	D MAX. (INCHES)	H MAX. (mm)	H MAX. (INCHES)
660R15AE###									
660R15AED10	Z5U	1000	+ 80 / - 20	15	5.3	21	0.83	15	0.59
660R15AED15		1500							
660R15AED22		2200				30	1.18		
660R15AED33		3300							
660R15AED47		4700							
660R15AED68		6800				37	1.45		
660R20AZ###									
660R20AZT22	N4700 (T3M)	220	± 20	20	7	21	0.83	17	0.67
660R20AZT68		680				30	1.18		
660R20AZD10		1000				37	1.45		
660R20AC###									
660R20ACT10	X7R	100	± 20	20	7	21	0.83	17	0.67
660R20ACT22		220							
660R20ACT33		330							
660R20ACT47		470							
660R20ACT68		680				30	1.18		
660R20ACD10		1000							
660R20ACD15		1500							
660R20ACD22		2200				37	1.45		
660R20ACD25		2500							
660R20ACD27		2700							
660R20AE###									
660R20AET68	Z5U	680	+ 80 / - 20	20	7	21	0.83	17	0.67
660R20AED10		1000							
660R20AED15		1500							
660R20AED22		2200				30	1.18		
660R20AED33		3300							
660R20AED47		4700				37	1.45		
660R20AED50		5000							
660R30AZ###									
660R30AZT18	N4700 (T3M)	180	± 20	30	10.6	21	0.83	20	0.79
660R30AZT47		470				30	1.18		
660R30AZT68		680				37	1.45		
660R30AC###									
660R30ACT10	X7R	100	± 20	30	10.6	21	0.83	20	0.79
660R30ACT22		220							
660R30ACT33		330							
660R30ACT47		470							
660R30ACT68		680				30	1.18		
660R30ACD10		1000							
660R30ACD15		1500				37	1.45		
660R30ACD20		2000							

SAP NUMBER AND ELECTRICAL DATA									
MODEL NUMBER	CERAMIC	CAP. VALUE (pF)	TOLERANCE (%)	RATED VOLTAGE (kV_{DC})	RATED VOLTAGE (kV_{RMS})	D MAX. (mm)	D MAX. (INCHES)	H MAX. (mm)	H MAX. (INCHES)
660R30AE###									
660R30AET47	Z5U	470	+ 80 / - 20	30	10.6	21	0.83	20	0.79
660R30AET68		680							
660R30AET82		820							
660R30AED10		1000				30	1.18		
660R30AED12		1200							
660R30AED15		1500							
660R30AED18		1800				37	1.45		
660R30AED20		2000							
660R30AED22		2200							
660R30AED25		2500							
660R30AED30		3000							
660R30AED33		3300							

CAPACITANCE CHANGE VS. VOLTAGE (typical)



RELATED DOCUMENTS	
General Information	www.vishay.com/doc?23140

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