

CERAMIC DISC CAPACITORS

HIGH VOLTAGE 1KV ~ 3KV

SPECIFICATION

- * Operating temperature range: $-25^{\circ}\text{C} + 85^{\circ}\text{C}$.
- * Rated working Voltage: 1KV DC, 2KV DC, 3KV DC.
- * Capacitance: Within the tolerance at 1MHz for class 1, 1KHz for class 2, 1 to 3 Vrms, 25°C .
- * Test voltage:
3 times of the rated voltage for NPO, N750, SL.
2.5 times of the rated voltage for B, E, F.

- * Dissipation Factor/Q Factor ($\tan \delta$):
1MHz, 1 to 3Vrms, 25°C , class 1,
C > 30PF Q \geq 1,000
C \leq 30PF Q \geq 400 + 20C
1KHz, 1 to 3 Vrms, 25°C , class 2,
B, E $\tan \delta \geq$ 2.5% Max.
F $\tan \delta \geq$ 5.0% Max.
- * Insulation resistance:
10,000 M Ω or 200 M $\Omega\mu\text{F}$ whichever is the smaller.

* Temperature characteristics

Char. \ Item	Max. Capacitance Change from 25°C	Applicable Temperature Range	Applicable Standards	
			IEC Pub. 384.9	EIA RS-198
B	$\pm 10\%$	-25 to $+85^{\circ}\text{C}$	2B4	Y5P
E	+20, -55%	+10 to $+85^{\circ}\text{C}$	2E5	Z5U
F	+30, -80%	+10 to $+85^{\circ}\text{C}$		

* Life test

After application of 200% of the rated voltage for 1000 hours at 85°C , capacitor shall meet the following. Measurement shall be made after 24 hours exposure at room temperature.

Temp. Char. \ Item	NPO, N750, SL		B	E	F
	$\leq 30\text{PF}$	$> 30\text{PF}$			
Capacitance Change	$\leq \pm 5\%$ or $\leq \pm 0.5\text{pF}$	$\leq \pm 5\%$	$\pm 10\%$	$\pm 20\%$	$\pm 30\%$
D. Factor/Q Factor	Q $\geq 27.5 + 5/3\text{C}$	Q ≥ 350	50×10^{-3}		75×10^{-3}
insulation Resistance	$\geq 1000\text{M}\Omega$		1000M Ω or 20M $\Omega\mu\text{F}$ whichever is less		

* Humidity test

The capacitors shall be exposed in the ambient temperature of 40°C and at 95% R.H. for 500 Hours. The capacitors shall meet the following after 24 hours exposure at room temperature.

Temp. Char. \ Item	NPO, N750, SL		B	E	F
	$\leq 30\text{PF}$	$> 30\text{PF}$			
Capacitance Change	$\leq \pm 5\%$ or $\leq \pm 0.5\text{pF}$	$\leq \pm 5\%$	$\pm 10\%$	$\pm 20\%$	$\pm 30\%$
D. Factor/Q Factor	Q $\geq 27.5 + 5/3\text{C}$	Q ≥ 350	50×10^{-3}		75×10^{-3}
insulation Resistance	$\geq 1000\text{M}\Omega$		1000M Ω or 20M $\Omega\mu\text{F}$ whichever is less		