

WRAP-AND-FILL HIGH CURRENT METALIZED POLYPROPYLENE FILM CAPACITORS



FEATURES

- AC voltage rating to 700 V
- DC voltage rating to 2,000 V
- High current
- High pulse operations

MAJOR APPLICATIONS:

Snubber and SCR commutating circuits, protection circuits, input and output filtering, blocking, timing and integrating circuits.

PHYSICAL CHARACTERISTICS

CONSTRUCTION:

Extended double-sided metalized polyester film, internal series connection (630 to 2,000 VDC), double-sided metalized polyester carrier film.

DIELECTRIC: Polypropylene film.

ELECTRODES: Vacuum deposited aluminum.

CASE: Flame retardant tape wrap and epoxy endfill.

LEAD MATERIAL: Solder coated copper wire.

LEAD WIRE SIZES:

Case Dia.	Lead AWG
< 0.300	No. 22
< 0.60	No. 20
0.650 and over	No. 18

LEAD PULL: 5 lbs (2.3 kg) for one minute. No physical damage.

LEAD BEND: After three complete consecutive bends. No damage.

MARKING:

Dearborn trademark, type or catalog number, capacitance, tolerance and voltage.

ELECTRICAL SPECIFICATIONS

CAPACITANCE RANGE: 0.001 μ F to 4.7 μ F

VOLTAGE RATING:

- 160 VDC to 2,000 VDC
- 100 VRMS to 700 VRMS

CAPACITANCE TOLERANCE: $\pm 20\%$, $\pm 10\%$, $\pm 5\%$

OPERATING TEMPERATURE: -55°C to $+105^{\circ}\text{C}$

VOLTAGE DERATING: At $+105^{\circ}\text{C}$, 70% of the 85°C rating

DISSIPATION FACTOR: 0.03% maximum

DC VOLTAGE TEST: 160% of rated voltage for 10 sec.

INSULATION RESISTANCE:

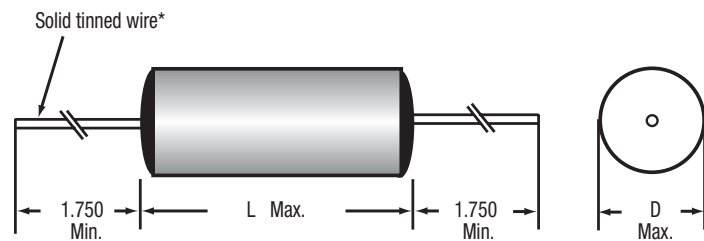
Measure at 100 VDC after a 2 minute charge.

- At $+25^{\circ}\text{C}$, 200,000 Megaohm-Microfarads, need not exceed 400,000 Megaohms

MAXIMUM PULSE RISE TIME

Capacitor Length (inch)	Rise Time dv / dt (V / μ s)						
	160 VDC	250 VDC	400 VDC	630 VDC	1,000 VDC	1,600 VDC	2,000 VDC
0.670	900	1140	1840	-	-	-	-
0.870	450	560	910	3430	-	-	-
1.140	260	320	520	2120	2800	3800	6200
1.340	202	240	400	1524	2000	2680	4200
1.750	140	170	280	980	1280	1690	2600

DIMENSIONS (in inches)



* Leads to be within ± 0.062 " of center line at egress, but not less than 0.031" from edge.

WRAP-AND-FILL HIGH CURRENT METALIZED POLYPROPYLENE FILM CAPACITORS

TYPE 709G

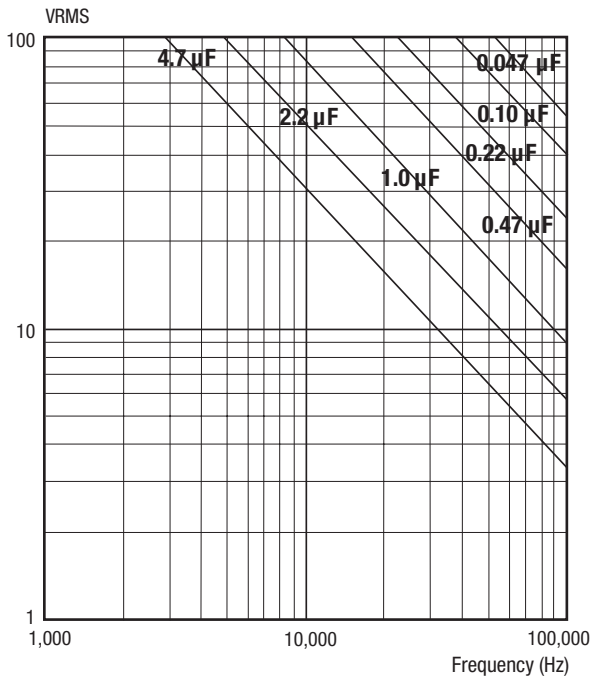
STANDARD RATINGS

Capacitance		Voltage Code 160 160 VDC / 100 VAC		Voltage Code 250 250 VDC / 160 VAC		Voltage Code 400 400 VDC / 200 VAC		Voltage Code 630 630 VDC / 400 VAC		Voltage Code 1K0 1,000 VDC / 600 VAC		Voltage Code 1K6 1,600 VDC / 650 VAC		Voltage Code 2K0 2,000 VDC / 700 VAC	
μF	Code	D	L	D	L	D	L	D	L	D	L	D	L	D	L
0.0010	102	-	-	-	-	-	-	-	-	-	-	-	-	0.256	1.142
0.0015	152	-	-	-	-	-	-	-	-	-	-	-	-	0.256	1.142
0.0022	222	-	-	-	-	-	-	-	-	-	-	-	-	0.256	1.142
0.0033	332	-	-	-	-	-	-	-	-	-	-	-	-	0.276	1.142
0.0047	472	-	-	-	-	-	-	-	-	-	-	-	-	0.315	1.142
0.0068	682	-	-	-	-	-	-	-	-	-	-	-	-	0.374	1.142
0.010	103	-	-	-	-	0.236	0.670	0.276	0.866	0.256	1.142	0.315	1.142	0.433	1.142
0.015	153	-	-	-	-	0.256	0.670	0.315	0.866	0.315	1.142	0.315	1.142	0.433	1.142
0.022	223	-	-	0.236	0.670	0.295	0.670	0.375	0.866	0.354	1.142	0.433	1.142	0.512	1.339
0.033	333	0.236	0.670	0.276	0.670	0.276	0.866	0.354	1.140	0.433	1.142	0.452	1.339	0.630	1.339
0.047	473	0.256	0.670	0.315	0.670	0.315	0.866	0.413	1.140	0.433	1.339	0.532	1.339	0.591	1.732
0.068	683	0.295	0.670	0.276	0.866	0.354	0.866	0.492	1.140	0.512	1.339	0.630	1.339	0.709	1.732
0.10	104	0.276	0.866	0.315	0.866	0.433	0.866	0.492	1.340	0.610	1.339	0.591	1.732	0.827	1.732
0.15	154	0.315	0.866	0.375	0.866	0.394	1.140	0.591	1.340	0.591	1.732	0.728	1.732	-	-
0.22	224	0.375	0.866	0.354	1.140	0.472	1.140	0.571	1.730	0.709	1.732	0.866	1.732	-	-
0.33	334	0.354	1.140	0.413	1.140	0.532	1.140	0.689	1.730	-	-	-	-	-	-
0.47	474	0.394	1.140	0.472	1.140	0.591	1.340	0.827	1.730	-	-	-	-	-	-
0.68	684	0.472	1.140	0.512	1.340	0.689	1.340	0.984	1.730	-	-	-	-	-	-
1.00	105	0.492	1.340	0.610	1.340	0.689	1.730	-	-	-	-	-	-	-	-
1.50	155	0.610	1.340	0.610	1.730	0.846	1.730	-	-	-	-	-	-	-	-
2.20	225	0.610	1.730	0.728	1.730	1.024	1.730	-	-	-	-	-	-	-	-
3.30	335	0.728	1.730	0.886	1.730	-	-	-	-	-	-	-	-	-	-
4.70	475	0.866	1.730	-	-	-	-	-	-	-	-	-	-	-	-

WRAP-AND-FILL HIGH CURRENT METALIZED POLYPROPYLENE FILM CAPACITORS

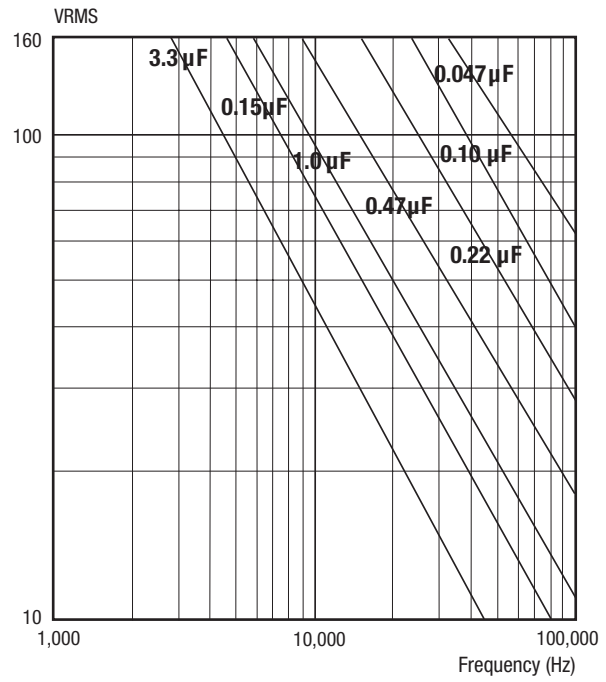
VOLTAGE VS. FREQUENCY TYPE 709G

160 VDC / 100 VAC



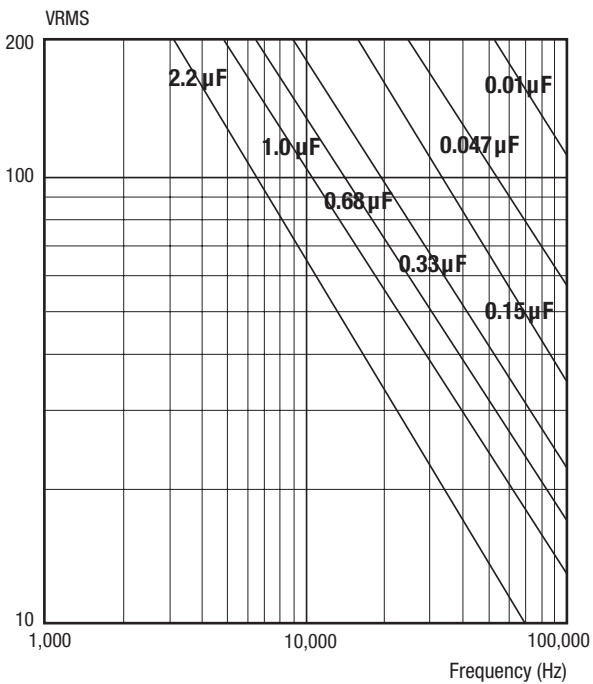
VOLTAGE VS. FREQUENCY TYPE 709G

250 VDC / 160 VAC



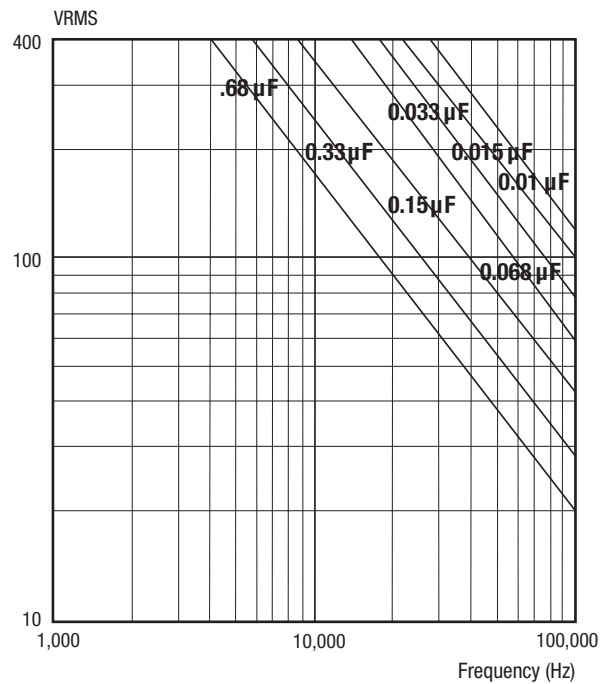
VOLTAGE VS. FREQUENCY TYPE 709G

400 VDC / 200 VAC



VOLTAGE VS. FREQUENCY TYPE 709G

630 VDC / 400 VAC

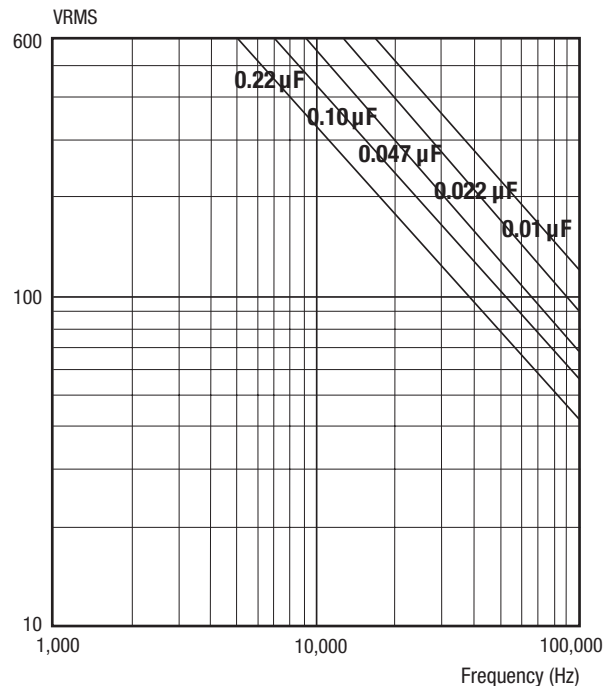


WRAP-AND-FILL HIGH CURRENT METALIZED POLYPROPYLENE FILM CAPACITORS

TYPE 709G

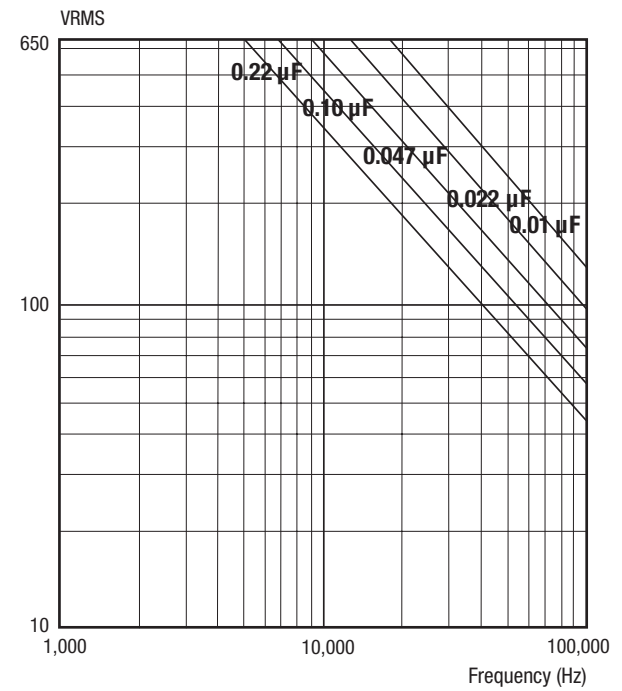
VOLTAGE VS. FREQUENCY TYPE 709G

1,000 VDC / 600 VAC



VOLTAGE VS. FREQUENCY TYPE 709G

1,600 VDC / 650 VAC



VOLTAGE VS. FREQUENCY TYPE 709G

2,000 VDC / 700 VAC

