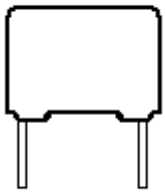
POLYPROPYLENE FILM CAPACITORS

MP5 Series

Application:

Used in electronic lighting, car hedlamp and ballast, pulse applications.



Construction:

Dielectric Polypropylene film or/and film-foil.
Tinned wire
Plastic case, epoxy resin filled, UL94 V0

Electrical Characteristics:

Capacitance range: 1 nF to 0.1 μF

Capacitance tolerance: ± 3 % (H), ± 5 % (J), ± 10 % (K) .

Rated voltage (Vr): 300 Vac (800 Vdc), 400 Vac (1000 Vdc), 500 Vac (1250 Vdc), 700 Vac (1600 Vac), 900 Vac (2000 Vdc).

Category voltage (Vc): up to 85º C Vc= Vr

Between +85ºC and +105ºC a decreasing factor of 1.25% per ºC on the nominal voltage Vr has to be applied.

Insulation Resistance:

Temperature: 25ºC
Voltage charge time: 1 minute.
Voltage charge : 100 Vdc

≥ 50.000 MΩ

Test voltage between terminations: 1.6 Vr applied for 2 sec. at 20ºC +- 5º C.

Dissipation factor (DF %): x 10^{-4}

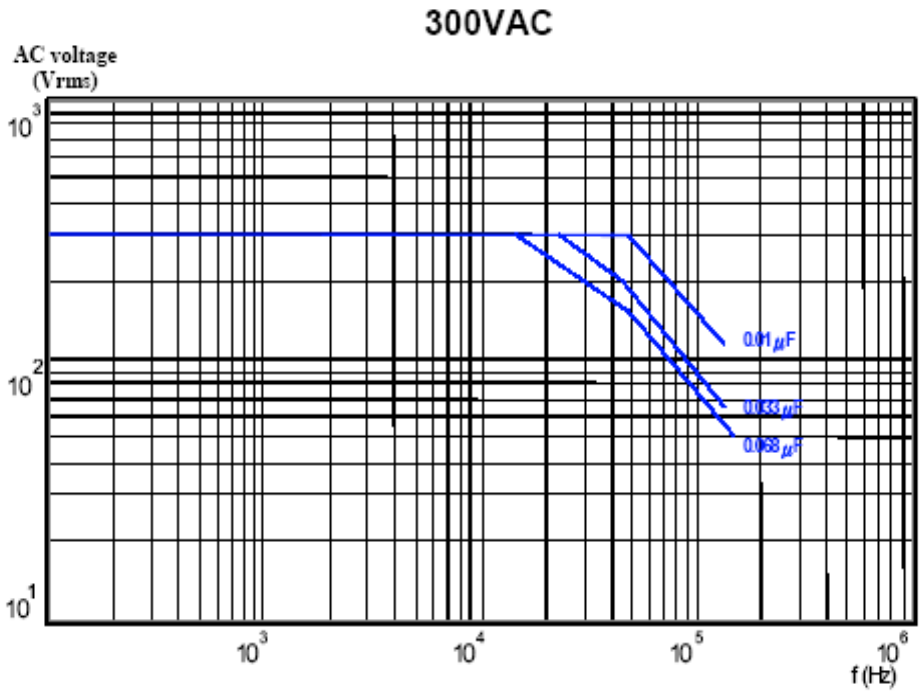
Khz	C< 0.01 μF	0.01≤ C ≤ 0.1 mF
1	≤ 5	≤ 5
10	≤ 10	≤ 10
100	≤ 20	≤ 20

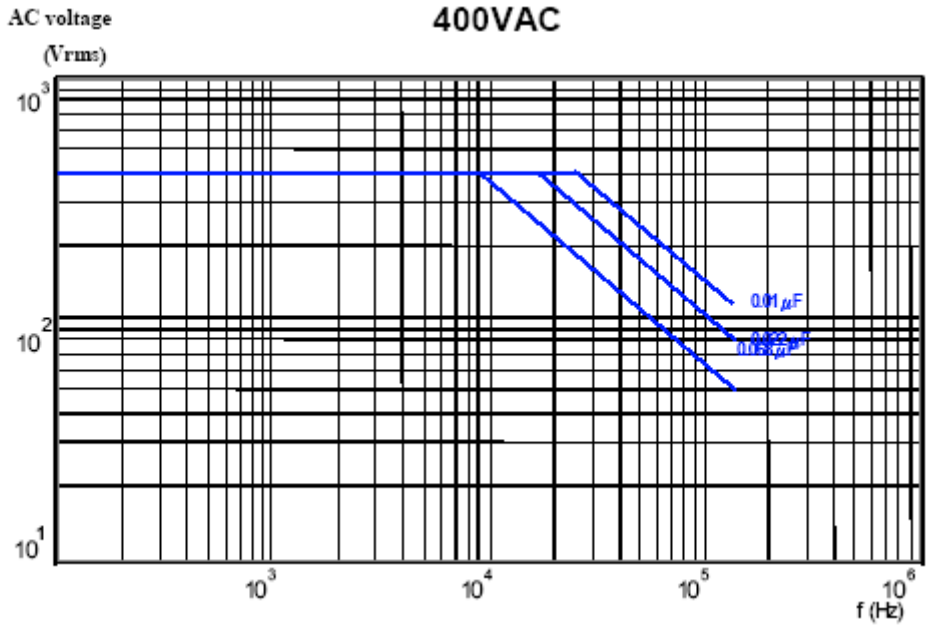
Electrical endurance:

125% of range voltage shall be applied to the capacitor at a tº of +85ºC for 2000 hours. (87,5% of rated voltage shall be applied to the capacitor at tº of 105ºC for 2000 hours), and then the capacitor shall be subjected to standard atmospheric conditions for 1 to 2 hours, after which measurement shall be made. The load resistor in serie with the capacitor shall be 20 Ohm to 1 K Ohm.

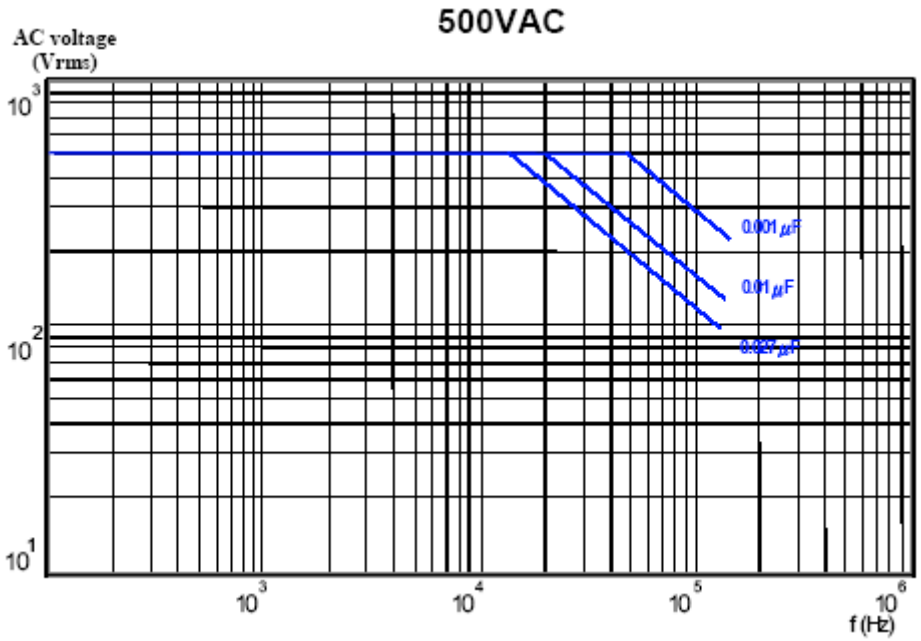
Performace: Capacitance change: $\Delta C/C \leq \pm 3\%$
DF change dif tang: $=< 10 \times 10^{-4}$ at 1 Khz
Insulation resistance: ≥ 50% of limit value

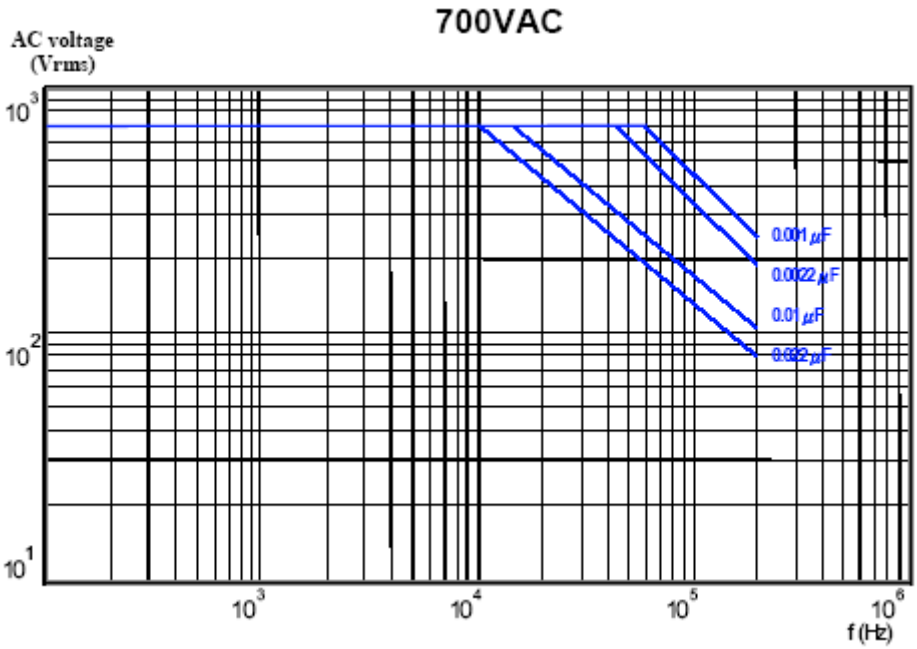
RATED VOLTAGE (Vrms) VERSUS FREQUENCY



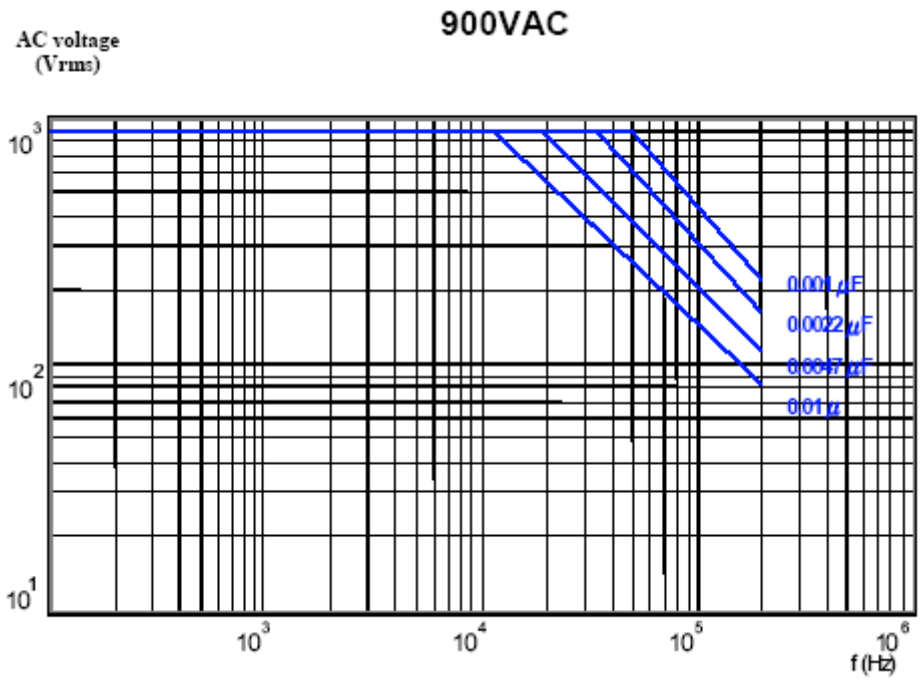


RATED VOLTAGE (Vrms) VERSUS FREQUENCY



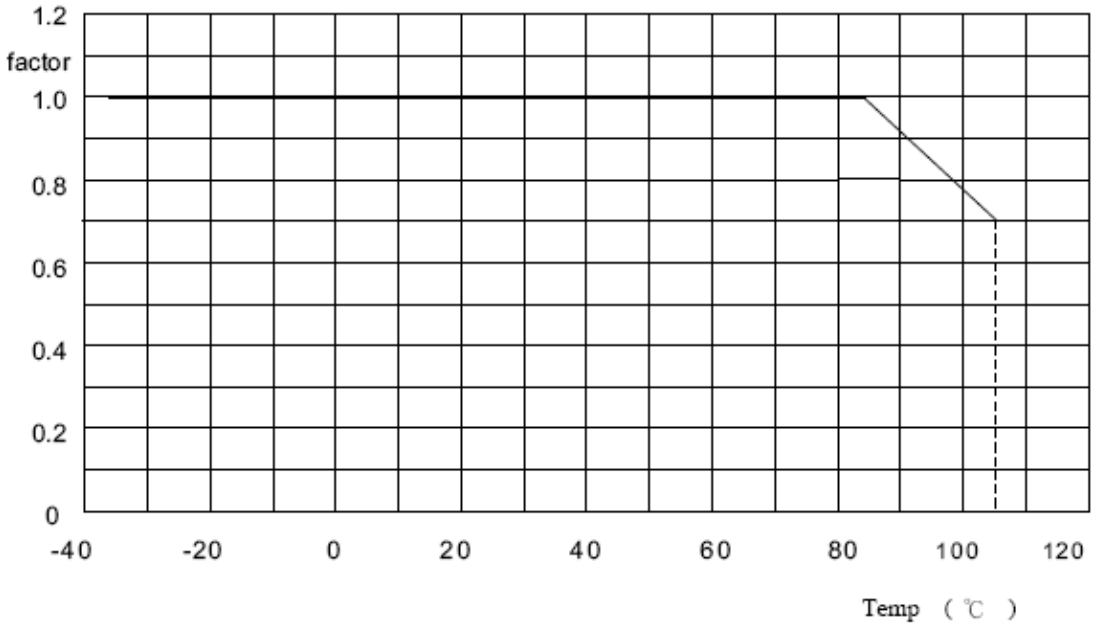


RATED VOLTAGE (Vrms) VERSUS FREQUENCY



MAXIMUM RMS VOLTAGE (SINEWAVE) AS A FUNCTION OF FREQUENCY OF FREQUENCY FOR TEMP > 85º C (VOLTAGE DERATING)

Maximum DC voltage and AC voltage (sinewave) as a function of Temp > 85℃ (voltage derating).



MP5

	300 Vac				400 Vac			
nF	W	H	T	p	W	H	T	p
1,0					13	9	4	10
1,2					13	9	4	10
1,5					13	9	4	10
1,8					13	9	4	10
2,2					13	9	4	10
2,7					13	9	4	10
3,3					13	10	5	10
3,9					13	10	5	10
4,7					13	11	5	10
5,6	13	9	4	10	13	11	5,5	10
6,8	13	10	5	10	18	11	5	15
8,2	13	11	5	10	18	11	5	15
9,1								
10	13	11	5,5	10	18	11	5	15
12	13	12	6	10	18	11	5	15
15	13	13	7	10	18	12	6	15
18	13	14	8	10	18	12	6	15
22	18	12	6	15	18	13,5	7,5	15
27	18	12	6	15	18	14,5	8,5	15
33	18	13	7	15	18	14,5	8,5	15
39	18	13,5	7,5	15	18	16	10	15
47	18	14,5	7,5	15	18	16	10	15
56	18	16	10	15	26	17	8	22,5
68	18	18	10	15	26	18	9	22,5
82	26	16,5	7,5	22,5	26	18,5	10	22,5
100	26	17,5	8,5	22,5	26	20	10	22,5

MP5

	500 Vac				700 Vac				900 Vac			
nF	W	H	T	p	W	H	T	p	W	H	T	p
1,0	18	11	5	15	18	11	5	15	18	11	5	15
1,2	18	11	5	15	18	11	5	15	18	11	5	15
1,5	18	11	5	15	18	11	5	15	18	11	5	15
1,8	18	11	5	15	18	11	5	15	18	12	6	15
2,2	18	11	5	15	18	11	5	15	18	13,5	7,5	15
2,7	18	11	5	15	18	11	5	15	18	13,5	7,5	15
3,3	18	11	5	15	18	11	5	15	18	14,5	8,5	15
3,9	18	11	5	15	18	11	5	15	18	15	8,5	15
4,7	18	11	5	15	18	12	6	15	18	16,5	10	15
5,6	18	11	5	15	18	12	6	15	18	18	10	15
6,8	18	11	5	15	18	13,5	7,5	15	26	14,5	6	22,5
8,2	18	12	5	15	18	13,5	7,5	15	26	15	6	22,5
9,1	18	13	7	15	18	15	8,5	15	26	16	7	22,5
10	18	12	6	15	18	14,5	8,5	15	26	16	7	22,5
12	18	12	7	15	18	15	9	15	26	17	8,5	22,5
15	18	13,5	7,5	15	18	16	10	15	26	17	8,5	22,5
18	18	14,5	8,5	15	18	19	10	15	26	18,5	10	22,5
22	18	16	10	15	26	16,5	7	22,5	26	20	11	22,5
27	18	17,5	11	15	26	17	8,5	22,5				
33	26	16,5	7,5	22,5	26	18,5	10	22,5				
39	26	17	8	22,5	26	18,5	10	22,5				
47	26	18	9	22,5	26	20	11	22,5				
56	26	18,5	10	22,5								
68	26	20	11	22,5								
82	26	22	12,5	22,5								
100												
120												