

AC & PULSE METALLISED POLYPROPYLENE FILM CAPACITORS (MPP Series)

MAIN APPLICATION: Where steep pulses occur, e.g., SMPS, motor control circuits, S-correction, etc

CONSTRUCTION: Low inductive wound cell of metallised polypropylene film coated with flame epoxy resin or enclosed in a flame retardant box

CLIMATIC CATEGORY: 40/100/56

MAX OPERATING TEMPERATURE: 100° C

RATED TEMPERATURE: 85° C. Between 85° C and 100° C, a voltage derating of 1.25% per °C on the rated voltage has to be applied

APPLICABLE SPECIFICATION: IEC 384-16

CAP. VALUE RATED VOLTAGE (DC): Refer dimension chart

CAPACITANCE TOLERANCE: ±5%

TAN d (DISSIPATION FACTOR) AT 20° C

Frequency (kHz)	$C_r < 0.027\mu\text{F}$	$0.027 > C_r = 0.1$	$0.1\mu\text{F} > C_r =$	$C_r > 1\mu\text{F}$
1 μF				
At 1	= 0.08%	= 0.08%	= 0.08%	= 0.1%
At 10	= 0.1%	= 0.1%	= 0.1%	
At 100	= 0.15%	= 0.25%	= 0.5%	

VOLTAGE PROOF: Between terminals: 1.6 times the rated voltage for 2 seconds

LIFE TEST CONDITIONS:

(Loading at elevated temperature)

Loaded at 1.25 times of rated voltage at 85° C or 1.25 times of category voltage at 100° C for 1000 hours

Category voltage is 80% of the rated voltage at 100° C

Criteria after the test:

$\Delta c/c$: = 5% of initial value

Increase of Tan d: = 0.002, $C_r > 1 \mu\text{F}$

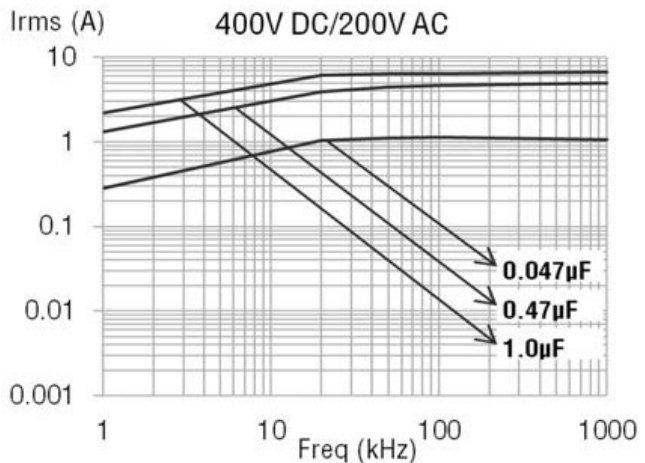
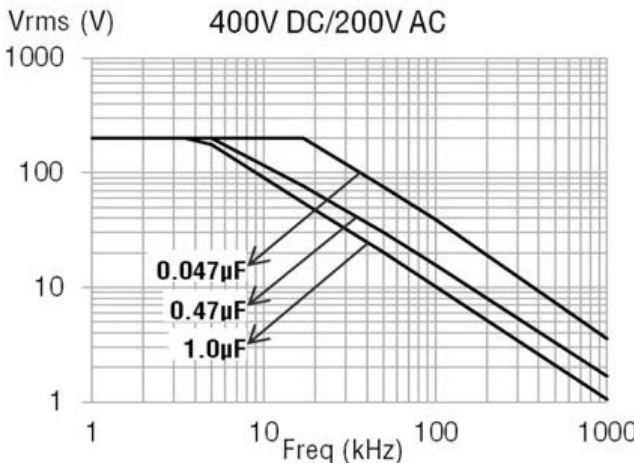
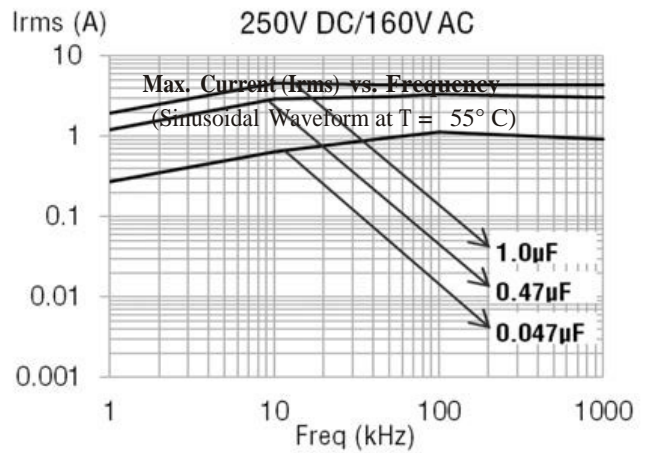
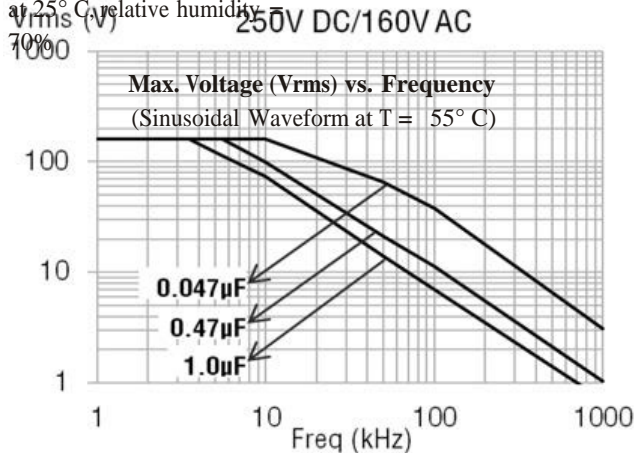
Insulation resistance: = 50% of the initial value mentioned in IR chart

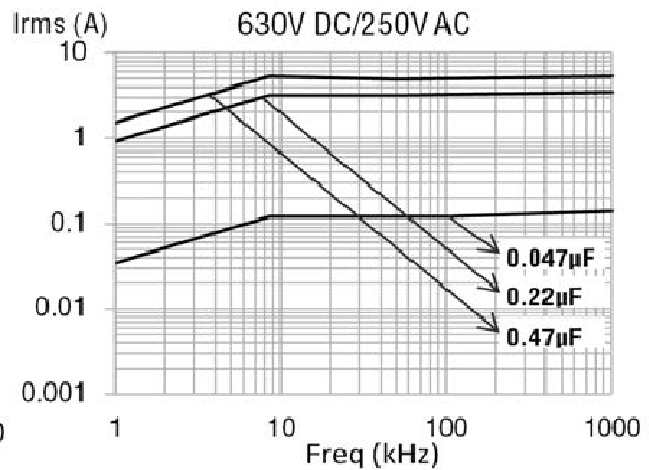
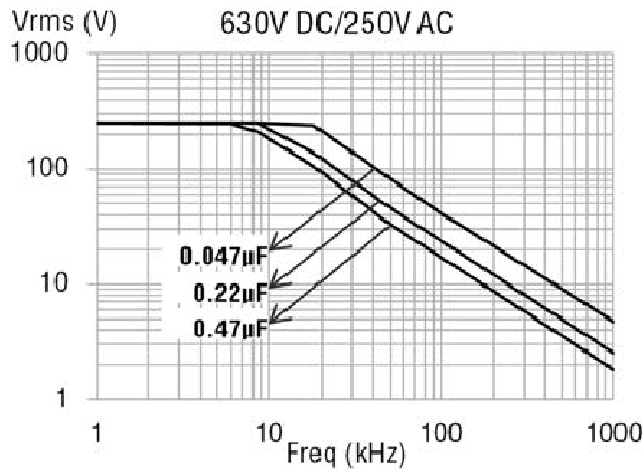
APPROVALS: Capacitors tested as per IEC 384-16

INSULATION RESISTANCE

Minimum Insulation Resistance R_{IS} $C_r = 0.33 \mu\text{F}$ $C_r > 0.33 \mu\text{F}$
(or) time constant $T = C_r \times R_{IS}$ $> 100000 \text{ MO}$ $> 30000 \text{ s}$

at 25° C, relative humidity = 70%





Note: The derating curves are based on the approximate actual values of $\tan\delta$ rather than the theoretical values.

AC & PULSE METALLISED POLYPROPYLENE FILM CAPACITORS (MPP Series) Ordering codes and packaging units - Dip Type

Rated Voltage	Rated Cap. (µF)	Dimensions(mm)				S ±0.5	F .8/-2	DV/DT V/µs	Wt. g	Ordering code	Packing units Bulk
		W ±0.5	H ±0.5	L ±0.5	d ±0.05						
250V DC	0.047	6.0	15.0	13	0.6	10.0	10.0	70	0.9	04 473 +2E* [^]	1000
	0.068	7.0	12.0	13	0.6	10.0	10.0	70	0.9	04 683 +2E* [^]	1000
	0.082	6.0	12.0	13	0.6	10.0	10.0	70	0.9	04 823 +2E* [^]	1000
	0.100	6.0	12.0	13	0.6	10.0	10.0	70	1.0	04 104 +2E* [^]	1000
	0.150	7.0	12.0	19	0.8	15.0	15.0	60	1.3	04 154 +2E* [^]	1000
	0.220	8.0	12.0	19	0.8	15.0	15.0	60	1.3	04 224 +2E* [^]	1000
	0.330	8.0	15.0	27	0.8	22.5	22.5	60	1.6	04 334 +2E* [^]	1250
	0.470	10.0	17.0	27	0.8	22.5	22.5	60	2.5	04 474 +2E* [^]	900
	0.560	9.0	17.0	27	0.8	22.5	22.5	30	1.8	04 564 +2E* [^]	650
	0.680	9.5	17.0	27	0.8	22.5	22.5	30	1.9	04 684 +2E* [^]	600
	0.820	10.0	18.5	27	0.8	22.5	22.5	30	2.1	04 824 +2E* [^]	500
	1.000	11.0	19.5	27	0.8	22.5	22.5	30	2.5	04 105 +2E* [^]	450
1.500	10.5	20.5	32	0.8	27.5	-	20	5.0	04 155 +2E* [^]	450	
2.200	12.0	21.0	31	0.8	27.5	-	20	6.5	04 225 +2E* [^]	300	
400V DC	0.022	5.0	16.0	13	0.6	10.0	10.0	80	0.9	04 223 +2G* [^]	1000
	0.033	6.0	12.0	13	0.6	10.0	10.0	80	0.9	04 333 +2G* [^]	1000
	0.047	5.0	11.0	13	0.6	10.0	10.0	80	0.9	04 473 +2G* [^]	1000
	0.068	6.0	12.5	19	0.8	15.0	15.0	70	1.3	04 683 +2G* [^]	1500
	0.082	7.0	12.5	19	0.8	15.0	15.0	70	1.3	04 823 +2G* [^]	1500
	0.100	7.0	14.0	19	0.8	15.0	15.0	70	1.4	04 104 +2G* [^]	1250
	0.150	8.0	13.0	19	0.8	15.0	15.0	70	1.5	04 154 +2G* [^]	1250
	0.220	8.0	16.0	19	0.8	15.0	15.0	70	1.8	04 224 +2G* [^]	1000
	0.270	7.0	20.0	27	0.8	22.5	22.5	35	1.8	04 274 +2G* [^]	750
	0.330	8.0	15.0	27	0.8	22.5	22.5	35	1.9	04 334 +2G* [^]	600
	0.470	9.0	21.5	27	0.8	22.5	22.5	35	2.4	04 474 +2G* [^]	450
	0.560	10.0	19.0	27	0.8	22.5	22.5	35	2.6	04 564 +2G* [^]	450
0.680	9.0	18.0	31	0.8	27.5	-	29	5.0	04 684 +2G* [^]	450	
0.820	11.0	21.0	31	0.8	27.5	-	29	5.5	04 824 +2G* [^]	400	
1.000	12.0	22.0	31	0.8	27.5	-	29	6.0	04 105 +2G* [^]	350	
630V DC	0.010	5.0	10.0	13	0.6	10.0	10.0	100	0.9	04 103 +2J* [^]	1000
	0.015	6.0	11.0	13	0.6	10.0	10.0	100	0.9	04 153 +2J* [^]	1000
	0.022	7.0	12.0	13	0.6	10.0	10.0	100	0.9	04 223 +2J* [^]	1000
	0.033	6.0	11.0	19	0.8	15.0	15.0	90	1.3	04 333 +2J* [^]	1500
	0.047	7.0	13.0	19	0.8	15.0	15.0	90	1.3	04 473 +2J* [^]	1500
	0.068	8.0	14.0	19	0.8	15.0	15.0	90	1.5	04 683 +2J* [^]	1250
	0.082	8.0	14.0	19	0.8	15.0	15.0	90	1.6	04 823 +2J* [^]	1250
	0.100	9.0	15.0	19	0.8	15.0	15.0	90	1.8	04 104 +2J* [^]	1000
	0.120	7.0	15.0	27	0.8	22.5	22.5	45	1.7	04 124 +2J* [^]	750
	0.150	8.0	16.5	27	0.8	22.5	22.5	45	1.9	04 154 +2J* [^]	600
	0.220	10.0	17.0	27	0.8	22.5	22.5	45	2.4	04 224 +2J* [^]	450
	0.330	10.0	19.0	31	0.8	27.5	-	30	5.0	04 334 +2J* [^]	550
0.470	12.0	20.0	32	0.8	27.5	-	30	5.5	04 474 +2J* [^]	450	

