



AC & PULSE METALLISED POLYPROPYLENE FILM CAPACITORS (DIP/BOX TYPE - MPP SERIES)

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

CONSTRUCTION (DIP/BOX TYPE): Low inductive wound cell of metallised polypropylene film coated with flame retardant epoxy resin (or encased in flame retardant box).

CLIMATIC CATEGORY: 40/100/56

APPLICABLE SPECIFICATION: IEC 384-16

CAPACITANCE VALUE, RATED VOLTAGE (DC): Refer dimension chart.

CAPACITANCE TOLERANCE: ±5%

VOLTAGE PROOF

Between terminals: 1.6 times of rated voltage for 2 seconds.

INSULATION RESISTANCE

Minimum Insulation Resistance R_{IS} $C_R \leq 0.33 \mu f$ $C_R > 0.33 \mu f$
(or) time constant $T=C_R \times R_{IS}$ $>100000 M\Omega$ $>30000 s$
at 25 ° C, relative humidity ≤ 70%

TAN δ

Frequency (kHz)	$C_R < 0.1 \mu f$	$0.1 \mu f < C_R \leq 1 \mu f$	$C_R > 1 \mu f$
At 1	0.05%	0.05%	0.08%
At 10	0.1%	0.08%	0.1%
At 100	0.3%	0.8%	1.0%

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 2000 hours. Category voltage is 80% of the rated voltage at 100 ° C.

AFTER THE TEST

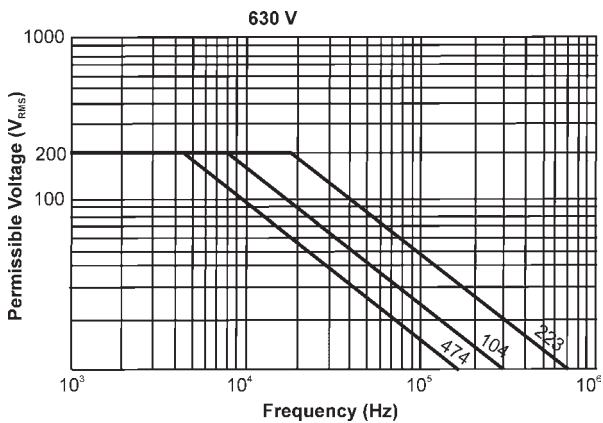
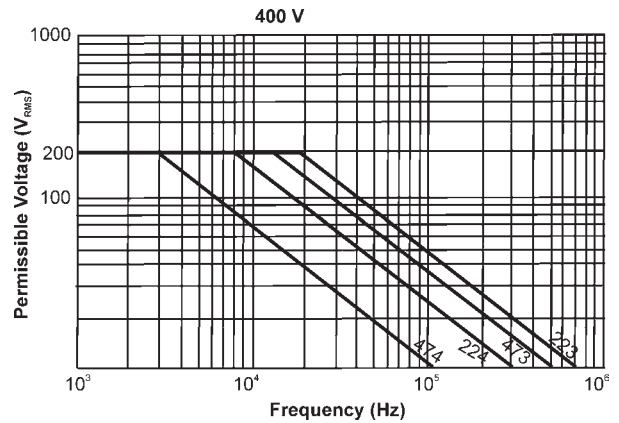
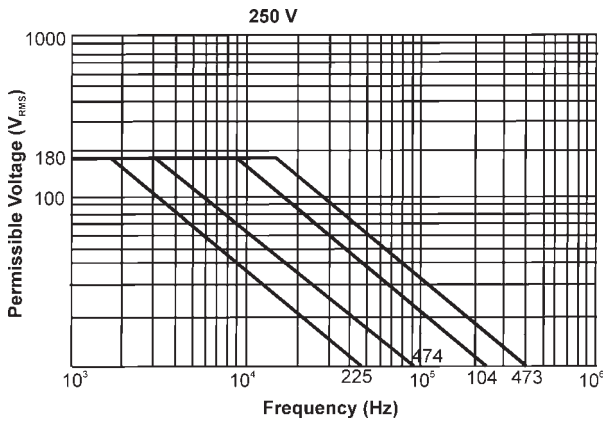
$\Delta c/c$: ≤ 3% of initial value.

Change in Tan δ: ≤ 0.002, $C_R > 1 \mu f$.

Insulation resistance: ≥ 50% of the value mentioned in IR chart.

APPROVALS: Tested as per IEC 384-16.

Permissible AC Voltage V_{RMS} vs. Frequency F at Ambient Temperature 25° C



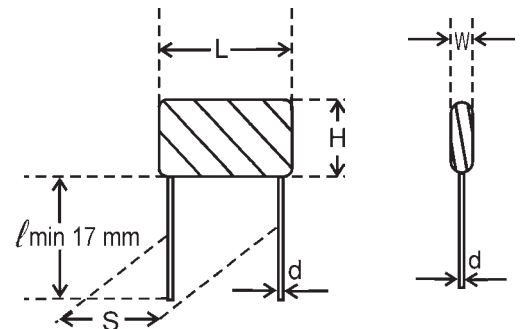
Ordering Code and Packing Units: AC & Pulse Metallised Polypropylene Film Capacitors (MPP Series)

Rated Voltage	Rated Cap. (µf)	Maximum Dimensions (mm)						Dv/Dt V/µs	Wt g	Ordering code	Packing units	
		W	H	L	d	S	F				Ammo	Bulk
		±0.05 ±0.5 +0.8/-0.2										
250V DC	0.047	6.0	12.0	13	0.6	10.0	10.0	70	0.9	04 473 +2E [^]	1000	2000
	0.068	7.0	12.0	13	0.6	10.0	10.0	70	0.9	04 683 +2E [^]	1000	2000
	0.082	6.5	12.0	13	0.6	10.0	10.0	70	0.9	04 823 +2E [^]	1000	2000
	0.1	7.0	12.0	13	0.6	10.0	10.0	70	1.0	04 104 +2E [^]	1000	2000
	0.15	7.0	12.0	19	0.8	15.0	15.0	60	1.3	04 154 +2E [^]	1000	1000
	0.22	8.0	14.0	19	0.8	15.0	15.0	60	1.3	04 224 +2E [^]	1000	1000
	0.33	8.0	15.0	27	0.8	22.5	22.5	30	1.6	04 334 +2E [^]	-	400
	0.47	9.0	16.0	27	0.8	22.5	22.5	30	2.5	04 474 +2E [^]	-	400
	0.56	9.0	17.0	27	0.8	22.5	22.5	30	1.8	04 564 +2E [^]	-	400
	0.68	9.5	17.5	27	0.8	22.5	22.5	30	1.9	04 684 +2E [^]	-	400
	0.82	10.0	18.5	27	0.8	22.5	22.5	30	2.1	04 824 +2E [^]	-	400
	1.0	10.0	19.5	27	0.8	22.5	22.5	30	2.5	04 105 +2E [^]	-	400
	1.5	10.5	20.5	32	0.8	27.5	-	20	5.0	04 155 +2E [^]	-	200
	2.2	13.0	22.0	32	0.8	27.5	-	20	6.5	04 225 +2E [^]	-	200
	400V DC	0.022	6.0	12.0	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	2000
0.047		6.0	12.0	13	0.6	10.0	10.0	80	0.9	04 473 +2G [^]	1000	2000
0.068		6.0	12.5	19	0.8	15.0	15.0	70	1.3	04 683 +2G [^]	1500	1000
0.082		7.0	12.5	19	0.8	15.0	15.0	70	1.3	04 823 +2G [^]	1500	1000
0.1		7.0	14.0	19	0.8	15.0	15.0	70	1.4	04 104 +2G [^]	1250	1000
0.15		8.0	15.0	19	0.8	15.0	15.0	70	1.5	04 154 +2G [^]	1250	1000
0.22		9.0	15.0	19	0.8	15.0	15.0	70	1.8	04 224 +2G [^]	1000	1000
0.27		7.0	14.0	27	0.8	22.5	22.5	35	1.8	04 274 +2G [^]	-	400
0.33		8.0	17.5	27	0.8	22.5	22.5	35	1.9	04 334 +2G [^]	-	400
0.47		9.0	18.0	27	0.8	22.5	22.5	35	2.4	04 474 +2G [^]	-	400
0.56		10.0	19.0	27	0.8	22.5	22.5	35	2.6	04 564 +2G [^]	-	400
0.68		9.0	18.0	31	0.8	27.5	-	29	5.0	04 684 +2G [^]	-	200
0.82		11.0	21.0	31	0.8	27.5	-	29	5.5	04 824 +2G [^]	-	200
1.0		12.0	22.0	31	0.8	27.5	-	29	6.0	04 105 +2G [^]	-	200
630V DC	0.01	6.0	12.0	13	0.6	10.0	10.0	100	0.9	04 103 +2J [^]	1000	2000
	0.015	7.0	12.0	13	0.6	10.0	10.0	100	0.9	04 153 +2J [^]	1000	2000
	0.022	7.0	12.0	13	0.6	10.0	10.0	100	0.9	04 223 +2J [^]	1000	2000
	0.033	6.5	12.5	19	0.8	15.0	15.0	90	1.3	04 333 +2J [^]	1500	1000
	0.047	7.0	14.0	19	0.8	15.0	15.0	90	1.3	04 473 +2J [^]	1500	1000
	0.068	7.5	13.5	19	0.8	15.0	15.0	90	1.5	04 683 +2J [^]	1250	1000
	0.082	8.0	14.0	19	0.8	15.0	15.0	90	1.6	04 823 +2J [^]	1250	1000
	0.1	9.0	15.0	19	0.8	15.0	15.0	90	1.8	04 104 +2J [^]	1000	1000
	0.12	7.0	15.0	27	0.8	22.5	22.5	45	1.7	04 124 +2J [^]	-	400
	0.15	8.0	16.5	27	0.8	22.5	22.5	45	1.9	04 154 +2J [^]	-	400
	0.22	9.0	19.0	27	0.8	22.5	22.5	45	2.4	04 224 +2J [^]	-	400
	0.33	9.5	19.5	31	0.8	27.5	-	30	5.0	04 334 +2J [^]	-	200
	0.47	11.0	21.5	31	0.8	27.5	-	30	5.5	04 474 +2J [^]	-	200

Dip type

NOTE

- Replace the + by the code letter for the required tolerance.
F:±1%, G:±2%, H:±2.5%, J:±5%, K:±10%, M:±20%
- Replace * by the code letter for packing type.
1 : Bulk Packing
2 : Bulk Packing (After forming & cutting)
3 : Ammo Packing (F&T)
4 : Bulk Packing (forming in original pitch)
5 : Bulk Packing (formed & without cut)
6 : Ammo Packing (Straight Lead)
7 : Bulk Packing (Straight Lead cut)
- Replace ^ by the code letter indicated drawing reference.
A : As per the catalogue
B-Z : customer drawing reference
- These are the most popular values. Other values in the range are available on request.
For dimensions, please refer to the closest higher value.



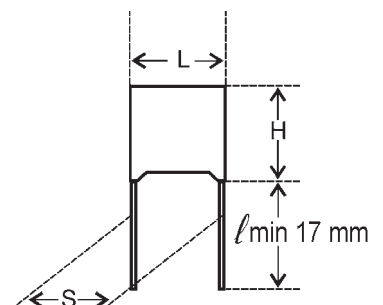
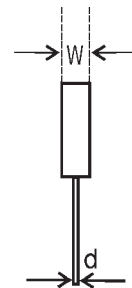
Ordering Code and Packing Units: AC & Pulse Metallised Polypropylene Film Capacitors (MPP Series)

Rated Voltage	Rated Cap. (µf)	Dimensions (mm)						Dv/Dt V/µs	Wt g	Ordering code	Packing units	
		W ±0.2	H ±0.2	L ±0.2	d ±0.05	S ±0.5	F ±0.8/-0.2				Ammo	Bulk
250V DC	0.033	4.0	9.0	13.0	0.6	10.0	10.0	280	0.6	27 333 +2E**	1100	500
	0.047	4.0	9.0	13.0	0.6	10.0	10.0	280	0.6	27 473 +2E**	1100	500
	0.056	4.0	9.0	13.0	0.6	10.0	10.0	280	0.6	27 563 +2E**	1100	500
	0.068	4.0	9.0	13.0	0.6	10.0	10.0	280	0.6	27 683 +2E**	1100	500
	0.082	5.0	11.0	13.0	0.6	10.0	10.0	280	0.8	27 823 +2E**	1100	500
	0.1	5.0	11.0	13.0	0.6	10.0	10.0	280	0.8	27 104 +2E**	1100	500
	0.15	6.0	12.0	13.0	0.6	10.0	10.0	280	0.9	27 154 +2E**	1100	500
	0.15	5.0	10.8	18.0	0.8	15.0	15.0	200	1.1	27 154 +2E**	1000	500
	0.22	5.0	10.8	18.0	0.8	15.0	15.0	200	1.1	27 224 +2E**	1000	500
	0.27	6.0	11.9	18.0	0.8	15.0	15.0	200	1.5	27 274 +2E**	1000	500
	0.39	7.5	13.5	18.0	0.8	15.0	15.0	200	2.0	27 394 +2E**	1000	500
	0.47	7.5	13.5	18.0	0.8	15.0	15.0	200	2.0	27 474 +2E**	1000	500
	0.56	7.5	13.5	18.0	0.8	15.0	15.0	200	2.0	27 564 +2E**	1000	500
	0.68	8.5	14.5	18.0	0.8	15.0	15.0	200	2.6	27 684 +2E**	1000	500
	0.82	10.0	16.0	18.0	0.8	15.0	15.0	200	2.8	27 824 +2E**	1000	500
	1.0	10.0	16.0	18.0	0.8	15.0	15.0	200	2.8	27 105 +2E**	1000	500
	0.39	6.0	15.0	26.5	0.8	22.5	22.5	125	2.8	27 394 +2E**	-	400
	0.47	6.0	15.0	26.5	0.8	22.5	22.5	125	2.8	27 474 +2E**	-	400
	0.56	6.0	15.0	26.5	0.8	22.5	22.5	125	2.8	27 564 +2E**	-	400
	0.68	6.0	15.0	26.5	0.8	22.5	22.5	125	2.8	27 684 +2E**	-	400
0.82	7.0	16.0	26.5	0.8	22.5	22.5	125	3.5	27 824 +2E**	-	400	
1.0	7.0	16.0	26.5	0.8	22.5	22.5	125	3.5	27 105 +2E**	-	400	
1.5	10.0	18.5	26.5	0.8	22.5	22.5	125	5.4	27 155 +2E**	-	400	
1.8	10.0	18.5	26.5	0.8	22.5	22.5	125	5.4	27 185 +2E**	-	400	
400V DC	0.015	4.0	9.0	13.0	0.6	10.0	10.0	420	0.6	27 153 +2G**	1100	500
	0.022	4.0	9.0	13.0	0.6	10.0	10.0	420	0.6	27 223 +2G**	1100	500
	0.027	4.0	9.0	13.0	0.6	10.0	10.0	420	0.6	27 273 +2G**	1100	500
	0.039	5.0	11.0	13.0	0.6	10.0	10.0	420	0.8	27 393 +2G**	1100	500
	0.047	5.0	11.0	13.0	0.6	10.0	10.0	420	0.8	27 473 +2G**	1100	500
	0.056	6.0	12.0	13.0	0.6	10.0	10.0	420	0.9	27 563 +2G**	1100	500
	0.068	6.0	12.0	13.0	0.6	10.0	10.0	420	0.9	27 683 +2G**	1100	500
	0.068	5.0	10.8	18.0	0.8	15.0	15.0	300	1.1	27 683 +2G**	1000	500
	0.082	5.0	10.8	18.0	0.8	15.0	15.0	300	1.1	27 823 +2G**	1000	500
	0.1	5.0	10.8	18.0	0.8	15.0	15.0	300	1.1	27 104 +2G**	1000	500
	0.15	6.0	11.9	18.0	0.8	15.0	15.0	300	1.5	27 154 +2G**	1000	500
	0.22	7.5	13.5	18.0	0.8	15.0	15.0	300	2.0	27 224 +2G**	1000	500
	0.27	8.5	14.5	18.0	0.8	15.0	15.0	300	2.6	27 274 +2G**	1000	500
	0.33	10.0	16.0	18.0	0.8	15.0	15.0	300	2.8	27 334 +2G**	1000	500
	0.18	6.0	15.0	26.5	0.8	22.5	22.5	180	2.8	27 184 +2G**	-	400
	0.22	6.0	15.0	26.5	0.8	22.5	22.5	180	2.8	27 224 +2G**	-	400
	0.27	6.0	15.0	26.5	0.8	22.5	22.5	180	2.8	27 274 +2G**	-	400
	0.47	7.0	16.0	26.5	0.8	22.5	22.5	180	3.5	27 474 +2G**	-	400
	0.56	7.0	16.0	26.5	0.8	22.5	22.5	180	3.5	27 564 +2G**	-	400
	0.68	10.0	18.5	26.5	0.8	22.5	22.5	180	5.4	27 684 +2G**	-	400
630V DC	0.001	4.0	9.0	13.0	0.6	10.0	10.0	550	0.6	27 102 +2J**	1100	500
	0.0015	4.0	9.0	13.0	0.6	10.0	10.0	550	0.6	27 152 +2J**	1100	500
	0.0022	4.0	9.0	13.0	0.6	10.0	10.0	550	0.6	27 222 +2J**	1100	500
	0.0033	4.0	9.0	13.0	0.6	10.0	10.0	550	0.6	27 332 +2J**	1100	500
	0.0047	4.0	9.0	13.0	0.6	10.0	10.0	550	0.6	27 472 +2J**	1100	500
	0.0056	4.0	9.0	13.0	0.6	10.0	10.0	550	0.6	27 562 +2J**	1100	500
	0.0068	4.0	9.0	13.0	0.6	10.0	10.0	550	0.6	27 682 +2J**	1100	500
	0.0082	4.0	9.0	13.0	0.6	10.0	10.0	550	0.6	27 822 +2J**	1100	500
	0.01	4.0	9.0	13.0	0.6	10.0	10.0	550	0.6	27 102 +2J**	1100	500
	0.022	6.0	12.0	13.0	0.6	10.0	10.0	550	0.9	27 223 +2J**	1100	500
	0.027	6.0	12.0	13.0	0.6	10.0	10.0	550	0.9	27 273 +2J**	1100	500
	0.027	5.0	10.8	18.0	0.8	15.0	15.0	400	1.1	27 273 +2J**	1000	500
	0.033	5.0	10.8	18.0	0.8	15.0	15.0	400	1.1	27 333 +2J**	1000	500
	0.047	5.0	10.8	18.0	0.8	15.0	15.0	400	1.1	27 473 +2J**	1000	500
	0.056	5.0	10.8	18.0	0.8	15.0	15.0	400	1.1	27 563 +2J**	1000	500
	0.082	6.0	11.9	18.0	0.8	15.0	15.0	400	1.5	27 823 +2J**	1000	500
	0.1	7.5	13.5	18.0	0.8	15.0	15.0	400	2.0	27 104 +2J**	1000	500
	0.15	8.5	14.5	18.0	0.8	15.0	15.0	400	2.6	27 154 +2J**	1000	500
	0.22	10.0	16.0	18.0	0.8	15.0	15.0	400	2.8	27 224 +2J**	1000	500
	0.082	6.0	15.0	26.5	0.8	22.5	22.5	250	2.8	27 823 +2J**	-	400
0.1	6.0	15.0	26.5	0.8	22.5	22.5	250	2.8	27 104 +2J**	-	400	
0.22	7.0	16.0	26.5	0.8	22.5	22.5	250	3.5	27 224 +2J**	-	400	
0.27	8.5	17.0	26.5	0.8	22.5	22.5	250	4.5	27 274 +2J**	-	400	
0.33	10.0	18.5	26.5	0.8	22.5	22.5	250	5.4	27 334 +2J**	-	400	
0.39	10.0	18.5	26.5	0.8	22.5	22.5	250	5.4	27 394 +2J**	-	400	

Box type

NOTE

- Replace the + by the code letter for the required tolerance.
F:±1%, G:±2%, H:±2.5%, J:±5%, K:±10%, M:±20%
- Replace * by the code letter for packing type.
1 : Bulk Packing
2 : Bulk Packing (After forming & cutting)
3 : Ammo Packing (F&T)
4 : Bulk Packing (forming in original pitch)
5 : Bulk Packing (formed & without cut)
6 : Ammo Packing (Straight Lead)
7 : Bulk Packing (Straight Lead cut)
- Replace ^ by the code letter indicated drawing reference.
A : As per the catalogue
B-Z : customer drawing reference
- These are the most popular values. Other values in the range are available on request.
For dimensions, please refer to the closest higher value.



The dv/dt test is carried out for 2 times above value