

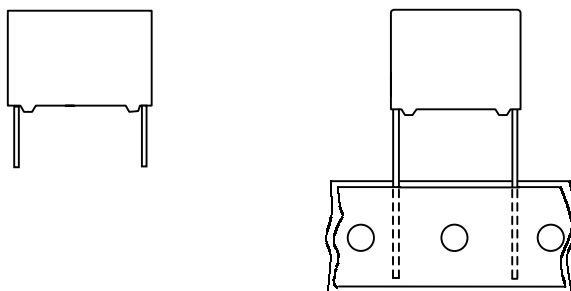
AC and Pulse Metallized Polypropylene film capacitors

PCMP 389

MKP RADIAL POTTED CAPACITORS

Pitch 10.0/15.0/22.5/27.5 mm
(reduced pitch 7.5mm)

NEW

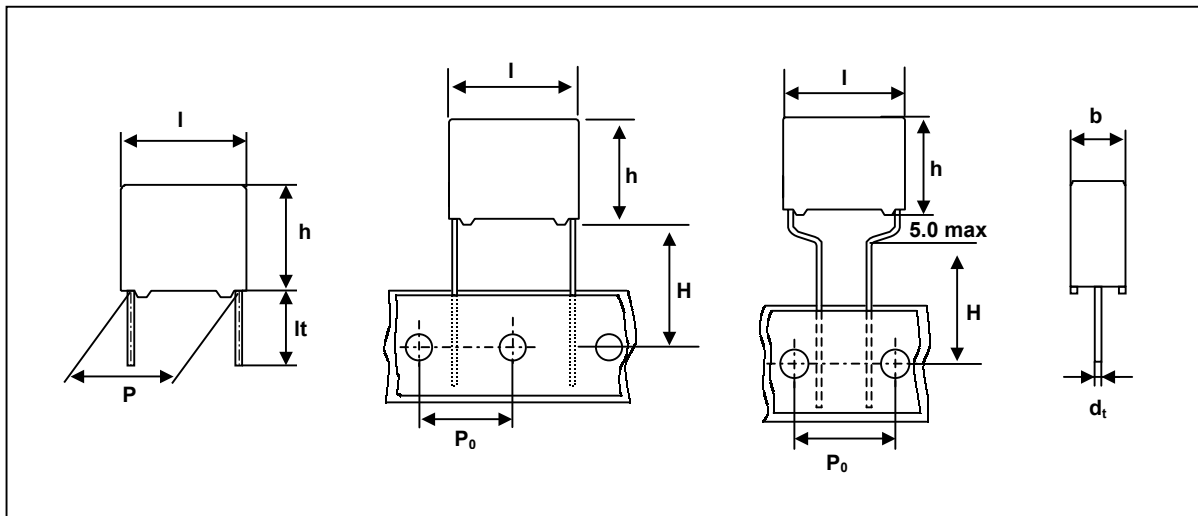


QUICK REFERENCE DATA

Capacitance range (E24 series)	0.01 to 3.9 μ F
Capacitance tolerance	\pm 5%
Rated voltage (DC)	250 V, 400 V, 630 V
Climatic category	55/105/56
Rated temperature (DC)	85°C
Maximum application temperature	105°C
Reference specification	IEC 60384-17

<h3>FEATURES</h3> <ul style="list-style-type: none"> . 15mm to 27.5mm lead pitch . Low contact resistance . Low loss dielectric . Small dimensions for high density packaging . Supplied loose in box and taped on reel 	<h3>APPLICATIONS</h3> <ul style="list-style-type: none"> . Where steep pulses occur e.g. SMPS (switch mode power supplies) . S - correction . Motor control circuits
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Ordering Information



PCMP 389
Type series

X X XXX
Capacitance

Code	Voltage
3	160V
4	250V
5	400V
6	630V
A	250V mini
H	250V large
J	400V large
K	630V large

Available versions					Product (l _{max})			
Code	Packing method	C-tol.	Lead length & Height	Hole to hole (P ₀)	12.5	18.0	26.0	31.0
					Pitch (P)			
2	Loose in box	±5%	lt = 5.0±1.0mm	-	10.0	15.0	22.5	27.5
3	Loose in box	±5%	lt = 25.0±2.0mm	-	10.0	15.0	22.5	27.5
1	Loose in box	±5%	lt = 3.2±0.3mm	-	10.0	15.0	22.5	27.5
5	Ammo packing	±5%	H=18.5mm	12.7mm	10.0	15.0	22.5	27.5
A	Ammo packing	±5%	H=16.0mm	15.0mm	-	7.5(*)	-	-

* Reduced pitch (Reduced lead spacings)

**AC and Pulse
Metallized Polypropylene film capacitors**
Packing Information

SMALLEST PACKING QUANTITIES (SPQ)	Loose in box	Ammo packing
	It = 5.0±1.0mm	H=18.5mm
DIMENSIONS	SPQ	SPQ
4.0 x 10.0 x 12.5	2000	-
5.0 x 11.0 x 12.5	1500	
6.0 x 12.0 x 12.5	1000	
5.0 x 11.0 x 18.0	1000	-
6.0 x 12.0 x 18.0	1000	
7.0 x 13.5 x 18.0	1000	
8.5 x 15.0 x 18.0	1000	
10.0 x 16.5 x 18.0	1000	
6.0 x 15.5 x 26.0	1000	-
7.0 x 16.5 x 26.0	1000	
8.5 x 18.0 x 26.0	500	
10.0 x 19.5 x 26.0	500	
11.0 x 21.0 x 31.0	500	-
13.0 x 23.0 x 31.0	250	
15.0 x 25.0 x 31.0	250	
18.0 x 28.0 x 31.0	200	

AC and Pulse Metallized Polypropylene film capacitors

Cap (μF)	b x h x l (mm)	CATALOGUE NUMBER	
		PCMP 389	
		loose in box	ammo packing
		lt = 5 \pm 1 mm	H = 18.5 mm
		C - tol. \pm 5%	C - tol. \pm 5%
$V_{\text{Rdc}} = 250 \text{ V}$		$V_{\text{Rac}} = 160 \text{ V}$	
$V_{\text{Rdc}} = 250 \text{ V}$		$V_{\text{p-p}} = 450 \text{ V}$	
Pitch = 10.0 \pm 0.4 mm		dt = 0.6 mm (+ 0.06 / - 0.05)	
0.047 0.051 0.056 0.062 0.068	4.0 x 10.0 x 12.5	PCMP 389 42473 PCMP 389 42513 PCMP 389 42563 PCMP 389 42623 PCMP 389 42683	PCMP 389 45473 PCMP 389 45513 PCMP 389 45563 PCMP 389 45623 PCMP 389 45683
0.075 0.082 0.091	5.0 x 11.0 x 12.5	PCMP 389 42753 PCMP 389 42823 PCMP 389 42913	PCMP 389 45753 PCMP 389 45823 PCMP 389 45913
0.10* 0.11* 0.12*	6.0 x 12.0 x 12.5	PCMP 389 42104 PCMP 389 42114 PCMP 389 42124	PCMP 389 45104 PCMP 389 45114 PCMP 389 45124
Pitch = 15.0 \pm 0.4 mm		dt = 0.8 mm (+ 0.08 / - 0.05)	
0.13 0.15 0.16	5.0 x 11.0 x 18.0	PCMP 389 42134 PCMP 389 42154 PCMP 389 42164	PCMP 389 45134 PCMP 389 45154 PCMP 389 45164
0.18 0.20 0.22 0.24	6.0 x 12.0 x 18.0	PCMP 389 42184 PCMP 389 42204 PCMP 389 42224 PCMP 389 42244	PCMP 389 45184 PCMP 389 45204 PCMP 389 45224 PCMP 389 45244
0.27 0.30 0.33*	7.0 x 13.5 x 18.0	PCMP 389 42274 PCMP 389 42304 PCMP 389 42334	PCMP 389 45274 PCMP 389 45304 PCMP 389 45334
0.36* 0.39* 0.43* 0.47*	8.5 x 15.0 x 18.0	PCMP 389 42364 PCMP 389 42394 PCMP 389 42434 PCMP 389 42474	PCMP 389 45364 PCMP 389 45394 PCMP 389 45434 PCMP 389 45474
Pitch = 22.5 \pm 0.4 mm		dt = 0.8 mm (+ 0.08 / - 0.05)	
0.51 0.56 0.62	7.0 X 16.5 X 26.0	PCMP 389 42514 PCMP 389 42564 PCMP 389 42624	PCMP 389 45514 PCMP 389 45564 PCMP 389 45624
0.68 0.75 0.82 0.91*	8.5 X 18.0 X 26.0	PCMP 389 42684 PCMP 389 42754 PCMP 389 42824 PCMP 389 42914	PCMP 389 45684 PCMP 389 45754 PCMP 389 45824 PCMP 389 45914
1.0* 1.1* 1.2*	10.0 X 19.5 X 26.0	PCMP 389 42105 PCMP 389 42115 PCMP 389 42125	PCMP 389 45105 PCMP 389 45115 PCMP 389 45125
Pitch = 27.5 \pm 0.4 mm		dt = 0.8 mm (+ 0.08 / - 0.05)	
1.3 1.5 1.6	11.0 X 21.0 X 31.0	PCMP 389 42135 PCMP 389 42155 PCMP 389 42165	- - -
1.8 2.0 2.2	13.0 X 23.0 X 31.0	PCMP 389 42185 PCMP 389 42205 PCMP 389 42225	- - -
2.4 2.7	15.0 X 25.0 X 31.0	PCMP 389 42245 PCMP 389 42275	- -
3.0 3.3 3.6 3.9	18.0 X 28.0 X 31.0	PCMP 389 42305 PCMP 389 42335 PCMP 389 42365 PCMP 389 42395	- - - -

* This values are available in larger pitch.

AC and Pulse Metallized Polypropylene film capacitors

PCMP 389

$V_{Rdc} = 400\text{ V}$		$V_{Rac} = 200\text{ V}$		$V_{p-p} = 560\text{ V}$	
Cap (μF)	b x h x l (mm)	CATALOGUE NUMBER			
		PCMP 389			
		loose in box		ammo packing	
		lt = 5 ± 1 mm		H = 18.5 mm	
C - tol. ± 5%		C - tol. ± 5%			
Pitch = 10.0 ± 0.4 mm		dt = 0.6 mm (+ 0.06 / - 0.05)			
0.022 0.024 0.027 0.030 0.033	4.0 x 10.0 x 12.5	PCMP 389 52223 PCMP 389 52243 PCMP 389 52273 PCMP 389 52303 PCMP 389 52333	PCMP 389 55223 PCMP 389 55243 PCMP 389 55273 PCMP 389 55303 PCMP 389 55333		
0.036 0.039 0.043	5.0 x 11.0 x 12.5	PCMP 389 52363 PCMP 389 52393 PCMP 389 52433	PCMP 389 55363 PCMP 389 55393 PCMP 389 55433		
0.047* 0.051* 0.056*	6.0 x 12.0 x 12.5	PCMP 389 52473 PCMP 389 52513 PCMP 389 52563	PCMP 389 55473 PCMP 389 55513 PCMP 389 55563		
Pitch = 15.0 ± 0.4 mm		dt = 0.8 mm (+ 0.08 / - 0.05)			
0.062 0.068 0.075 0.082	5.0 x 11.0 x 18.0	PCMP 389 52623 PCMP 389 52683 PCMP 389 52753 PCMP 389 52823	PCMP 389 55623 PCMP 389 55683 PCMP 389 55753 PCMP 389 55823		
0.091 0.10 0.11 0.12	6.0 x 12.0 x 18.0	PCMP 389 52913 PCMP 389 52104 PCMP 389 52114 PCMP 389 52124	PCMP 389 55913 PCMP 389 55104 PCMP 389 55114 PCMP 389 55124		
0.13 0.15 0.16	7.0 x 13.5 x 18.0	PCMP 389 52134 PCMP 389 52154 PCMP 389 52164	PCMP 389 55134 PCMP 389 55154 PCMP 389 55164		
0.18* 0.20* 0.22*	8.5 x 15.0 x 18.0	PCMP 389 52184 PCMP 389 52204 PCMP 389 52224	PCMP 389 55184 PCMP 389 55204 PCMP 389 55224		
Pitch = 22.5 ± 0.4 mm		dt = 0.8 mm (+ 0.08 / - 0.05)			
0.24 0.27 0.30	7.0 X 16.5 X 26.0	PCMP 389 52244 PCMP 389 52274 PCMP 389 52304	PCMP 389 55244 PCMP 389 55274 PCMP 389 55304		
0.33 0.36 0.39 0.43 0.47	8.5 X 18.0 X 26.0	PCMP 389 52334 PCMP 389 52364 PCMP 389 52394 PCMP 389 52434 PCMP 389 52474	PCMP 389 55334 PCMP 389 55364 PCMP 389 55394 PCMP 389 55434 PCMP 389 55474		
0.51* 0.56* 0.62*	10.0 X 19.5 X 26.0	PCMP 389 52514 PCMP 389 52564 PCMP 389 52624	PCMP 389 55514 PCMP 389 55564 PCMP 389 55624		
Pitch = 27.5 ± 0.4 mm		dt = 0.8 mm (+ 0.08 / - 0.05)			
0.68 0.75 0.82	11.0 X 21.0 X 31.0	PCMP 389 52684 PCMP 389 52754 PCMP 389 52824	- - -		
0.91 1.0 1.1	13.0 X 23.0 X 31.0	PCMP 389 52914 PCMP 389 52105 PCMP 389 52115	- - -		
1.2 1.3 1.5	15.0 X 25.0 X 31.0	PCMP 389 52125 PCMP 389 52135 PCMP 389 52155	- - -		
1.6 1.8 2.0	18.0 X 28.0 X 31.0	PCMP 389 52165 PCMP 389 52185 PCMP 389 52205	- - -		

* This values are available in larger pitch.

AC and Pulse Metallized Polypropylene film capacitors

$V_{Rdc} = 630 V$		$V_{Rac} = 250 V$		$V_{p-p} = 700 V$	
Cap (μF)	b x h x l (mm)	CATALOGUE NUMBER			
		PCMP 389			
		loose in box		ammo packing	
		lt = 5 ± 1 mm		H = 18.5 mm	
		C - tol. ± 5%		C - tol. ± 5%	
Pitch = 10.0 ± 0.4 mm		dt = 0.6 mm (+ 0.06 / - 0.05)			
0.010 0.011 0.012 0.013 0.015 0.016	4.0 x 10.0 x 12.5	PCMP 389 62103 PCMP 389 62113 PCMP 389 62123 PCMP 389 62133 PCMP 389 62153 PCMP 389 62163	PCMP 389 65103 PCMP 389 65113 PCMP 389 65123 PCMP 389 65133 PCMP 389 65153 PCMP 389 65163		
0.018 0.020 0.022 0.024	5.0 x 11.0 x 12.5	PCMP 389 62183 PCMP 389 62203 PCMP 389 62223 PCMP 389 62243	PCMP 389 65183 PCMP 389 65203 PCMP 389 65223 PCMP 389 65243		
0.027* 0.030* 0.033*	6.0 x 12.0 x 12.5	PCMP 389 62273 PCMP 389 62303 PCMP 389 62333	PCMP 389 65273 PCMP 389 65303 PCMP 389 65333		
Pitch = 15.0 ± 0.4 mm		dt = 0.8 mm (+ 0.08 / - 0.05)			
0.036 0.039	5.0 X 11.0 X 18.0	PCMP 389 62363 PCMP 389 62393	PCMP 389 65363 PCMP 389 65393		
0.043 0.047 0.051 0.056 0.062	6.0 X 12.0 X 18.0	PCMP 389 62433 PCMP 389 62473 PCMP 389 62513 PCMP 389 62563 PCMP 389 62623	PCMP 389 65433 PCMP 389 65473 PCMP 389 65513 PCMP 389 65563 PCMP 389 65623		
0.068 0.075 0.082	7.0 X 13.5 X 18.0	PCMP 389 62683 PCMP 389 62753 PCMP 389 62823	PCMP 389 65683 PCMP 389 65753 PCMP 389 65823		
0.091 0.10* 0.11*	8.5 X 15.0 X 18.0	PCMP 389 62913 PCMP 389 62104 PCMP 389 62114	PCMP 389 65913 PCMP 389 65104 PCMP 389 65114		
Pitch = 22.5 ± 0.4 mm		dt = 0.8 mm (+ 0.08 / - 0.05)			
0.12 0.13 0.15 0.16	7.0 X 16.5 X 26.0	PCMP 389 62124 PCMP 389 62134 PCMP 389 62154 PCMP 389 62164	PCMP 389 65124 PCMP 389 65134 PCMP 389 65154 PCMP 389 65164		
0.18 0.20 0.22*	8.5 X 18.0 X 26.0	PCMP 389 62184 PCMP 389 62204 PCMP 389 62224	PCMP 389 65184 PCMP 389 65204 PCMP 389 65224		
0.24* 0.27* 0.30*	10.0 X 19.5 X 26.0	PCMP 389 62244 PCMP 389 62274 PCMP 389 62304	PCMP 389 65244 PCMP 389 65274 PCMP 389 65304		
Pitch = 27.5 ± 0.4 mm		dt = 0.8 mm (+ 0.08 / - 0.05)			
0.33 0.36 0.39 0.43	11.0 X 21.0 X 31.0	PCMP 389 62334 PCMP 389 62364 PCMP 389 62394 PCMP 389 62434	- - - -		
0.47 0.51 0.56	13.0 X 23.0 X 31.0	PCMP 389 62474 PCMP 389 62514 PCMP 389 62564	- - -		
0.62 0.68 0.75	15.0 X 25.0 X 31.0	PCMP 389 62624 PCMP 389 62684 PCMP 389 62754	- - -		
0.82 0.91 1.0	18.0 X 28.0 X 31.0	PCMP 389 62824 PCMP 389 62914 PCMP 389 62105	- - -		

* This values are available in larger pitch.

AC and Pulse Metallized Polypropylene film capacitors

PCMP 389

$V_{Rdc} = 250 V$	$V_{Rac} = 160 V$	$V_{p-p} = 450 V$	Mini type
Cap (μF)	b x h x l (mm)	CATALOGUE NUMBER	
		PCMP 389	
		loose in box	ammo packing
		lt = 5 ± 1 mm	H = 18.5 mm
		C - tol. $\pm 5\%$	C - tol. $\pm 5\%$
Pitch = 10.0 ± 0.4 mm		dt = 0.6 mm (+ 0.06 / - 0.05)	
0.033 0.036 0.039 0.043 0.047 0.051 0.056 0.062 0.068 0.075	4.0 X 10.0 X 12.5	PCMP 389 A2333 PCMP 389 A2363 PCMP 389 A2393 PCMP 389 A2433 PCMP 389 A2473 PCMP 389 A2513 PCMP 389 A2563 PCMP 389 A2623 PCMP 389 A2683 PCMP 389 A2753	PCMP 389 A5333 PCMP 389 A5363 PCMP 389 A5393 PCMP 389 A5433 PCMP 389 A5473 PCMP 389 A5513 PCMP 389 A5563 PCMP 389 A5623 PCMP 389 A5683 PCMP 389 A5753
0.082 0.091 0.10 0.11	5.0 X 11.0 X 12.5	PCMP 389 A2823 PCMP 389 A2913 PCMP 389 A2104 PCMP 389 A2114	PCMP 389 A5823 PCMP 389 A5913 PCMP 389 A5104 PCMP 389 A5114
0.12 0.13 0.15	6.0 X 12.0 X 12.5	PCMP 389 A2124 PCMP 389 A2134 PCMP 389 A2154	PCMP 389 A5124 PCMP 389 A5134 PCMP 389 A5154
Pitch = 15.0 ± 0.4 mm		dt = 0.6 mm (+ 0.08 / - 0.05)	
0.16 0.18 0.20 0.22 0.24	5.0 X 11.0 X 18.0	PCMP 389 A2164 PCMP 389 A2184 PCMP 389 A2204 PCMP 389 A2224 PCMP 389 A2244	PCMP 389 A5164 PCMP 389 A5184 PCMP 389 A5204 PCMP 389 A5224 PCMP 389 A5244
0.27 0.30 0.33 0.36	6.0 X 12.0 X 18.0	PCMP 389 A2274 PCMP 389 A2304 PCMP 389 A2334 PCMP 389 A2364	PCMP 389 A5274 PCMP 389 A5304 PCMP 389 A5334 PCMP 389 A5364
0.39 0.43 0.47 0.51	7.0 X 13.5 X 18.0	PCMP 389 A2394 PCMP 389 A2434 PCMP 389 A2474 PCMP 389 A2514	PCMP 389 A5394 PCMP 389 A5434 PCMP 389 A5474 PCMP 389 A5514
0.56 0.62 0.68 0.75	8.5 X 15.0 X 18.0	PCMP 389 A2564 PCMP 389 A2624 PCMP 389 A2684 PCMP 389 A2754	PCMP 389 A5564 PCMP 389 A5624 PCMP 389 A5684 PCMP 389 A5754
0.82 0.91 1.0	10.0 X 16.5 X 18.0	PCMP 389 A2824 PCMP 389 A2914 PCMP 389 A2105	PCMP 389 A5824 PCMP 389 A5914 PCMP 389 A5105

AC and Pulse Metallized Polypropylene film capacitors

PCMP 389

$V_{Rdc} = 250 V$		$V_{Rac} = 160 V$		$V_{p-p} = 450 V$		Large type	
Cap (μF)	b x h x l (mm)	CATALOGUE NUMBER					
		PCMP 389					
		loose in box		ammo packing			
		lt = 5 ± 1 mm		H = 18.5 mm			
		C - tol. ± 5%		C - tol. ± 5%			
Pitch = 15.0 ± 0.4 mm		dt = 0.8 mm (+ 0.08 / - 0.05)					
0.10 0.11 0.12	5.0 x 11.0 x 18.0	PCMP 389 H2104 PCMP 389 H2114 PCMP 389 H2124	PCMP 389 H5104 PCMP 389 H5114 PCMP 389 H5124				
Pitch = 22.5 ± 0.4 mm		dt = 0.8 mm (+ 0.08 / - 0.05)					
0.33 0.36 0.39 0.43 0.47	7.0 x 16.5 x 26.0	PCMP 389 H2334 PCMP 389 H2364 PCMP 389 H2394 PCMP 389 H2434 PCMP 389 H2474	PCMP 389 H5334 PCMP 389 H5364 PCMP 389 H5394 PCMP 389 H5434 PCMP 389 H5474				
Pitch = 27.5 ± 0.4 mm		dt = 0.8 mm (+ 0.08 / - 0.05)					
0.91 1.0 1.1 1.2	11.0 X 21.0 X 31.0	PCMP 389 H2914 PCMP 389 H2105 PCMP 389 H2115 PCMP 389 H2125	PCMP 389 H5914 PCMP 389 H5105 PCMP 389 H5115 PCMP 389 H5125				

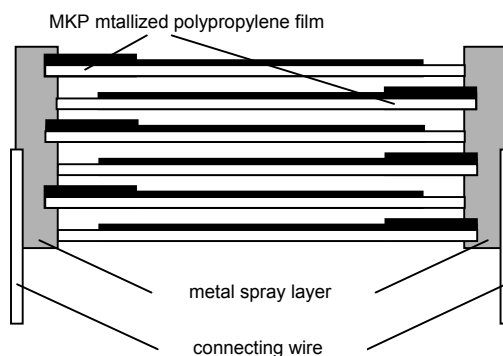
$V_{Rdc} = 400 V$		$V_{Rac} = 200 V$		$V_{p-p} = 560 V$		Large type	
Cap (μF)	b x h x l (mm)	CATALOGUE NUMBER					
		PCMP 389					
		loose in box		ammo packing			
		lt = 5 ± 1 mm		H = 18.5 mm			
		C - tol. ± 5%		C - tol. ± 5%			
Pitch = 15.0 ± 0.4 mm		dt = 0.8 mm (+ 0.08 / - 0.05)					
0.047 0.051 0.056	5.0 x 11.0 x 18.0	PCMP 389 J2473 PCMP 389 J2513 PCMP 389 J2563	PCMP 389 J5473 PCMP 389 J5513 PCMP 389 J5563				
Pitch = 22.5 ± 0.4 mm		dt = 0.8 mm (+ 0.08 / - 0.05)					
0.18 0.20 0.22	7.0 X 16.5 X 26.0	PCMP 389 J2184 PCMP 389 J2204 PCMP 389 J2224	PCMP 389 J5184 PCMP 389 J5204 PCMP 389 J5224				
Pitch = 27.5 ± 0.4 mm		dt = 0.8 mm (+ 0.08 / - 0.05)					
0.51 0.56 0.62	11.0 X 21.0 X 31.0	PCMP 389 J2514 PCMP 389 J2564 PCMP 389 J2624	PCMP 389 J5514 PCMP 389 J5564 PCMP 389 J5624				

AC and Pulse Metallized Polypropylene film capacitors

PCMP 389

$V_{Rdc} = 630 V$	$V_{Rac} = 250 V$	$V_{p-p} = 700 V$	Large type
Cap (μF)	b x h x l (mm)	CATALOGUE NUMBER	
		PCMP 389	
		loose in box	ammo packing
		lt = 5 ± 1 mm	H = 18.5 mm
		C - tol. $\pm 5\%$	C - tol. $\pm 5\%$
Pitch = 15.0 ± 0.4 mm		dt = 0.8 mm (+ 0.08 / - 0.05)	
0.027 0.030 0.033	5.0 X 11.0 X 18.0	PCMP 389 K2273 PCMP 389 K2303 PCMP 389 K2333	PCMP 389 K5273 PCMP 389 K5303 PCMP 389 K5333
Pitch = 22.5 ± 0.4 mm		dt = 0.8 mm (+ 0.08 / - 0.05)	
0.10 0.11	7.0 X 16.5 X 26.0	PCMP 389 K2104 PCMP 389 K2114	PCMP 389 K5104 PCMP 389 K5114
Pitch = 27.5 ± 0.4 mm		dt = 0.8 mm (+ 0.08 / - 0.05)	
0.22 0.24 0.27 0.30	11.0 X 21.0 X 31.0	PCMP 389 K2224 PCMP 389 K2244 PCMP 389 K2274 PCMP 389 K2304	PCMP 389 K5224 PCMP 389 K5244 PCMP 389 K5274 PCMP 389 K5304

CONSTRUCTION



Description ;

- . Low - inductive wound cell of metallized polypropylene (PP) film.
- . Potted with blue epoxy resin in a blue flame-retardant polypropylene case.
- . Radial leads, tin-coated.
- . Small stand-off pips allow removal of solder flux etc. during cleaning of the printed-circuit board.

MOUNTING

NORMAL USE

The capacitors are designed for mounting on printed-circuit boards. The capacitors packed in bandoilers are designed for mounting on printed-circuit boards by means of automatic insertion machines.

SPECIFIC METHOD OF MOUNTING TO WITHSTAND VIBRATION AND SHOCK

- . For pitches of 15 mm the capacitors shall be mechanically fixed by the leads.
- . For larger pitches the capacitors shall be mounted in the same way and the body clamped.

STORAGE TEMPERATURE

.Storage temperature : $T_{stg} = -25$ to $+40^{\circ}\text{C}$ with RH maximum 80% without condensation.

RATINGS AND CHARACTERISTICS

Unless otherwise specified all electrical values apply at an ambient temperature of $23 \pm 1^{\circ}\text{C}$, an atmospheric pressure of 86 to 106 kPa and a relative humidity of $50 \pm 2\%$.

For reference testing a conditioning period shall be applied of 96 ± 4 hours by heating the products in a circulating air oven at the rated temperature and a relative humidity not exceeding 20%.

AC and Pulse Metallized Polypropylene film capacitors

CHARACTERISTICS

● Test Voltage

- . Test Voltage (between terminations) : $1.6 \times V_{Rdc}$, 1min
- . Test Voltage (between leads and case) : $2840 V_{dc}$, 1min

● Dissipation Factor

Rated voltage	Capacitance	Tangent of loss angle ($\times 10^{-4}$)	
		10 kHz	100 kHz
250 V	$0.047\mu\text{F} \leq C \leq 0.12\mu\text{F}$	≤ 5	≤ 30
	$0.12 \mu\text{F} < C \leq 0.33\mu\text{F}$	≤ 8	≤ 40
	$0.33 \mu\text{F} < C \leq 0.56\mu\text{F}$	≤ 10	≤ 50
	$0.56 \mu\text{F} < C \leq 0.91\mu\text{F}$	≤ 10	≤ 60
	$0.91 \mu\text{F} < C \leq 1.5 \mu\text{F}$	≤ 10	≤ 80
	$1.5 \mu\text{F} < C \leq 2.2 \mu\text{F}$	≤ 10	≤ 100
	$2.2 \mu\text{F} < C \leq 3.9 \mu\text{F}$	≤ 15	≤ 135
400 V	$0.022\mu\text{F} \leq C \leq 0.075\mu\text{F}$	≤ 5	≤ 20
	$0.075\mu\text{F} < C \leq 0.39 \mu\text{F}$	≤ 8	≤ 40
	$0.39 \mu\text{F} < C \leq 0.91 \mu\text{F}$	≤ 10	≤ 60
	$0.91 \mu\text{F} < C \leq 1.5 \mu\text{F}$	≤ 10	≤ 80
	$1.5 \mu\text{F} < C \leq 2.0 \mu\text{F}$	≤ 10	≤ 95
630 V	$0.010\mu\text{F} \leq C \leq 0.027\mu\text{F}$	≤ 5	≤ 15
	$0.027\mu\text{F} < C \leq 0.39 \mu\text{F}$	≤ 8	≤ 40
	$0.39 \mu\text{F} < C \leq 1.0 \mu\text{F}$	≤ 10	≤ 60
250 V (Mini type)	$0.033\mu\text{F} \leq C \leq 0.10 \mu\text{F}$	≤ 5	≤ 25
	$0.10\mu\text{F} < C \leq 0.33 \mu\text{F}$	≤ 8	≤ 60
	$0.33\mu\text{F} < C \leq 1.0 \mu\text{F}$	≤ 10	≤ 80
250 V (Large type)	$0.10 \mu\text{F} \leq C \leq 0.12 \mu\text{F}$	≤ 8	≤ 30
	$0.33 \mu\text{F} \leq C \leq 0.47 \mu\text{F}$	≤ 15	≤ 55
	$0.91 \mu\text{F} \leq C \leq 1.2 \mu\text{F}$	≤ 20	≤ 90
400 V (Large type)	$0.047\mu\text{F} \leq C \leq 0.056\mu\text{F}$	≤ 5	≤ 20
	$0.18 \mu\text{F} \leq C \leq 0.22 \mu\text{F}$	≤ 8	≤ 30
	$0.51 \mu\text{F} \leq C \leq 0.62 \mu\text{F}$	≤ 15	≤ 50
630V (Large type)	$0.027\mu\text{F} \leq C \leq 0.033\mu\text{F}$	≤ 5	≤ 20
	$0.10 \mu\text{F} \leq C \leq 0.11 \mu\text{F}$	≤ 8	≤ 20
	$0.22 \mu\text{F} \leq C \leq 0.30 \mu\text{F}$	≤ 10	≤ 25

AC and Pulse Metallized Polypropylene film capacitors

● Insulation Resistance

The insulation resistance is measured for 1min \pm 5s, at 100V for $V_{Rdc} < 630V$, at 500V for $V_{Rdc} \geq 630V$

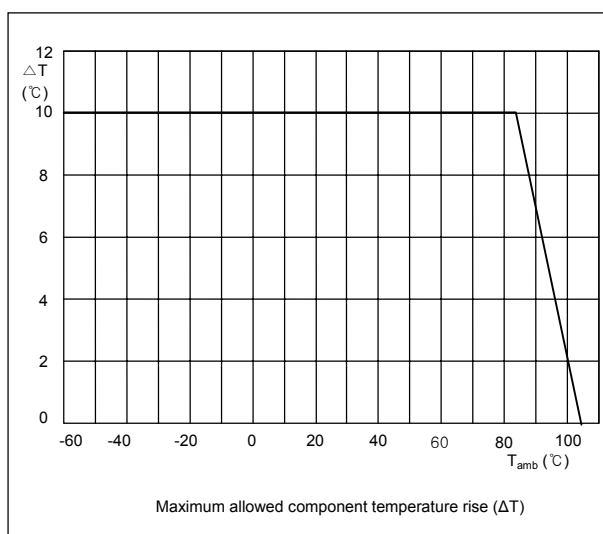
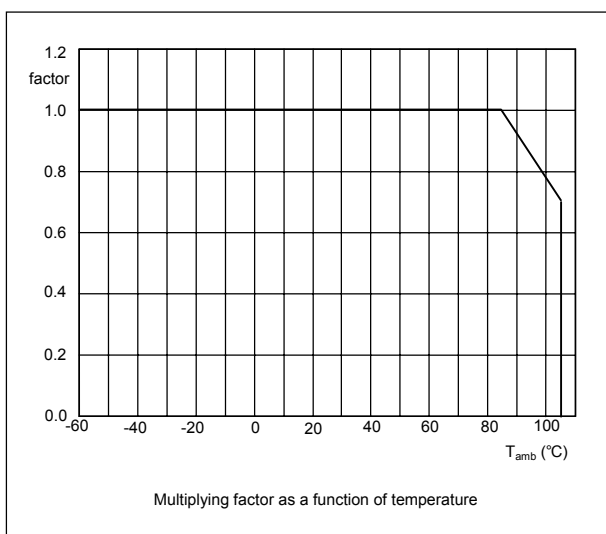
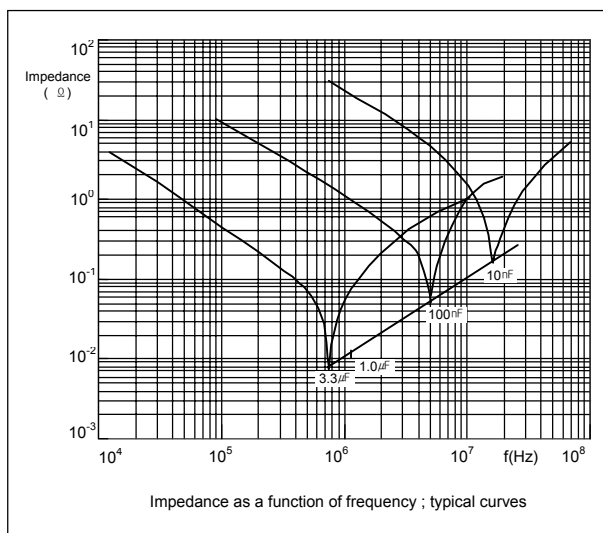
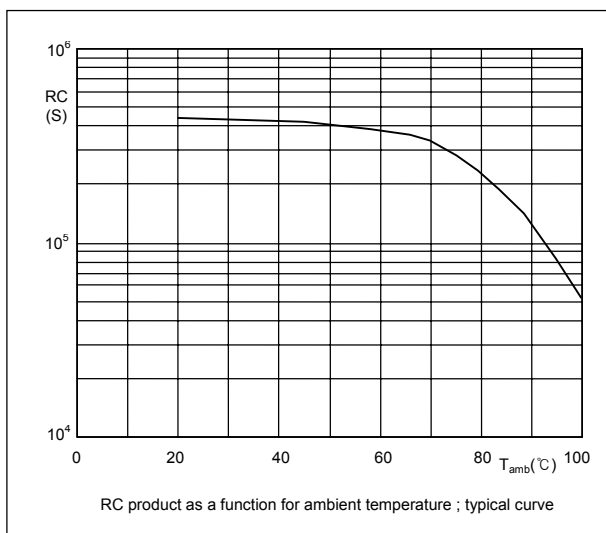
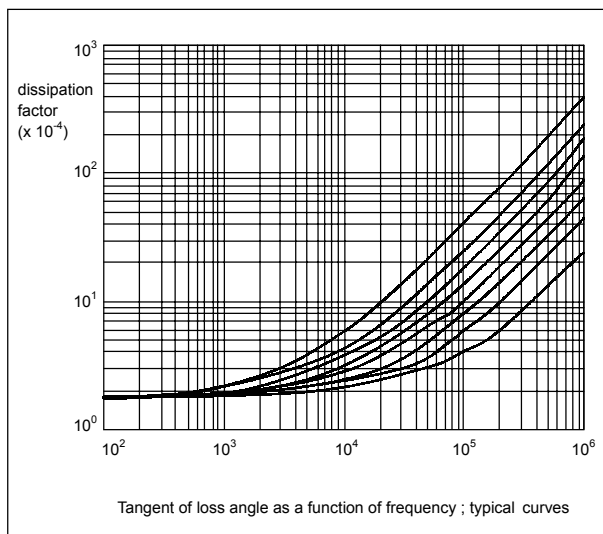
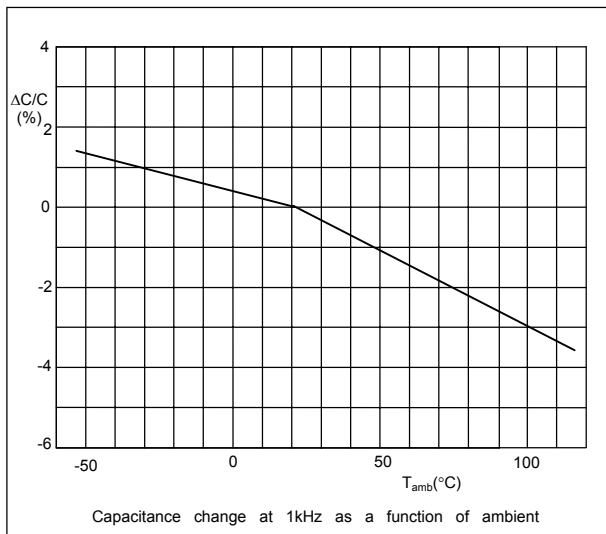
R between leads : $> 100\,000\ M\Omega$ when $C \leq 1\ \mu F$

● Rated Voltage Pulse Lode Slope (dV/dt)_R

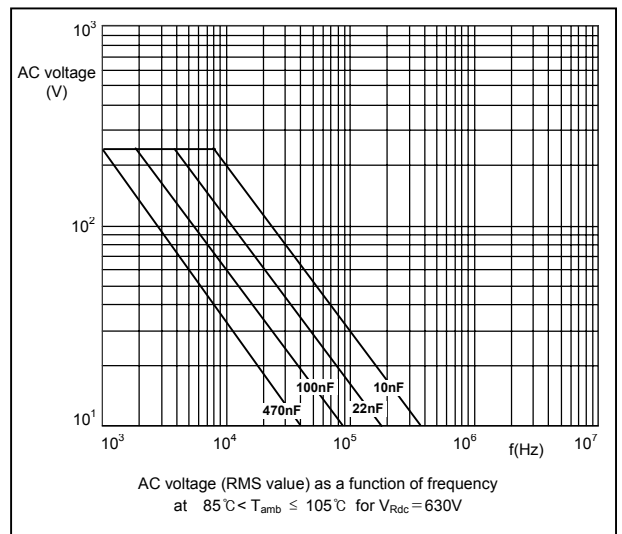
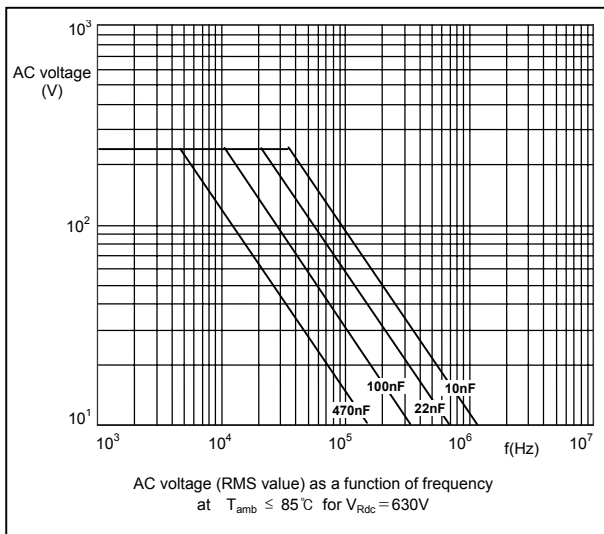
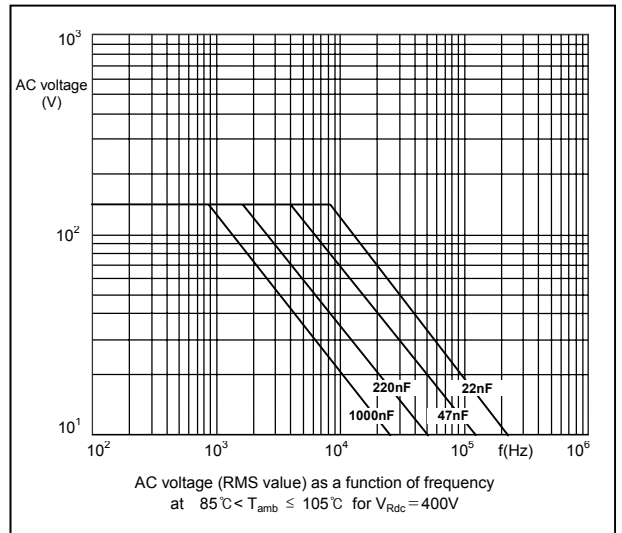
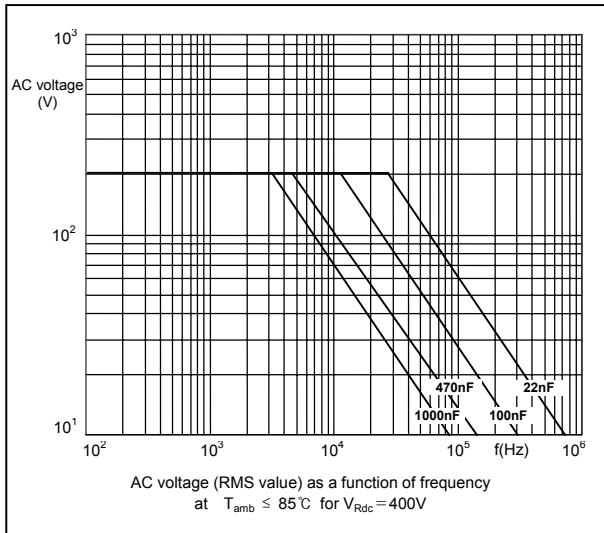
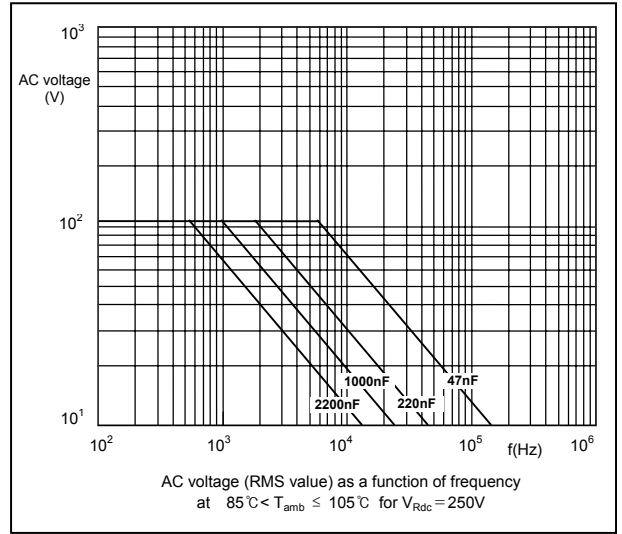
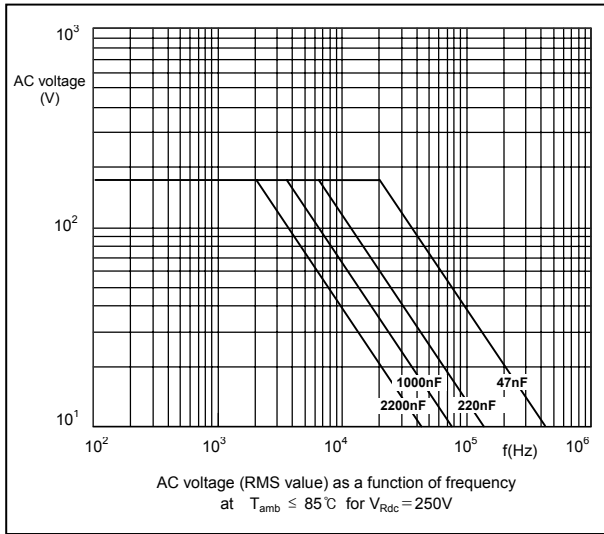
For values see specific reference data. If the pulse voltage is lower than the rated voltage, the values of the specific reference data must be multiplied by V_{Rdc} and divided by the applied voltage

Rated voltage	MAXIMUM RATED VOLTAGE PULSE SLOPE (V/ μ S)			
	P = 10.0 mm	P = 15.0 mm	P = 22.5 mm	P = 27.5 mm
250 V	280	200	125	50
400 V	420	300	180	70
630 V	550	400	250	100

THE GRAPHS OF CHARACTERISTICS



MAXIMUM RMS VOLTAGE (SINEWAVE) AS A FUNCTION OF FREQUENCY



APPLICATION NOTE AND LIMITING CONDITIONS

These capacitors are not suitable for mains application as across-the-line capacitors without additional protection.

To select the capacitor for a certain application, the following conditions must be checked :

1. The peak voltage (V_p) shall not be greater than the rated DC voltage (V_{Rdc}).
2. The peak-to-peak voltage (V_{p-p}) shall not be greater than the maximum V_{p-p} to avoid the ionisation inception level.
3. The voltage pulse slope (dV/dt) shall not exceed the rated voltage pulse slope in an RC-circuit at rated voltage and without ringing. If the pulse voltage is lower than the rated DC voltage, the rated voltage pulse slope may be multiplied by V_{Rdc} and divided by the applied voltage.
For all other pulses following equation must be fulfilled :

$$2 \times \int_0^T \left(\frac{dU}{dt} \right) \times dt < U_{Rdc} \times \left(\frac{dU}{dt} \right)_{rated}$$

T is the pulse duration.

4. The maximum component surface temperature rise must be lower than the limits.

AC and Pulse Metallized Polypropylene film capacitors

PRODUCT MARKING

Capacitors are marked on the top or on the top and one side with the following information :

- . Rated capacitance code in accordance with IEC 60062
- . Tolerance on rated capacitance : J : $\pm 5\%$
- . Rated (DC) Voltage (e.g. 630 V)
- . Code for dielectric material (MKP)
- . Manufacturer's type designation (389)
- . Manufacturer's name (PILKOR)
- . Year and week of manufacture (e.g. 0401)

Example of marking

pitch = 10mm

100n J 250V

Marking on the top

PILKOR 389 MKP

Marking on the side

Pitch = 15.0 mm

36n J 630V 389 MKP

Marking on the top

PILKOR WK....

Marking on the side

Pitch > 15.0 mm

120n J 630V 389 MKP

Marking on the top

PILKOR WK....

Marking on the side

or

120n J 630V PILKOR 389 MKP WK....

Marking on the top