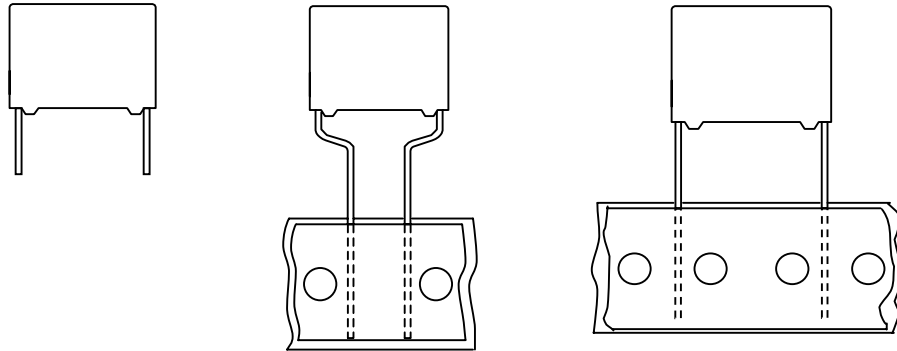


Metallized Polyester film capacitors

PCMT 468

MKT RADIAL POTTED CAPACITORS

Pitch 10/15/22.5/27.5mm
(reduced pitch ; 7.5mm)

QUICK REFERENCE DATA

Capacitance range (E24 series)	0.01 to 6.8 μ F
Capacitance tolerance	$\pm 5\%$, $\pm 10\%$,
Rated voltage (DC)	100V, 250V, 400V, 630V
Climatic category	55/105/56
Temperature range	-55 ~ +105
Reference specification	IEC 60384-2
Potting & Encapsulation material	Qualified in accordance with UL94V-0

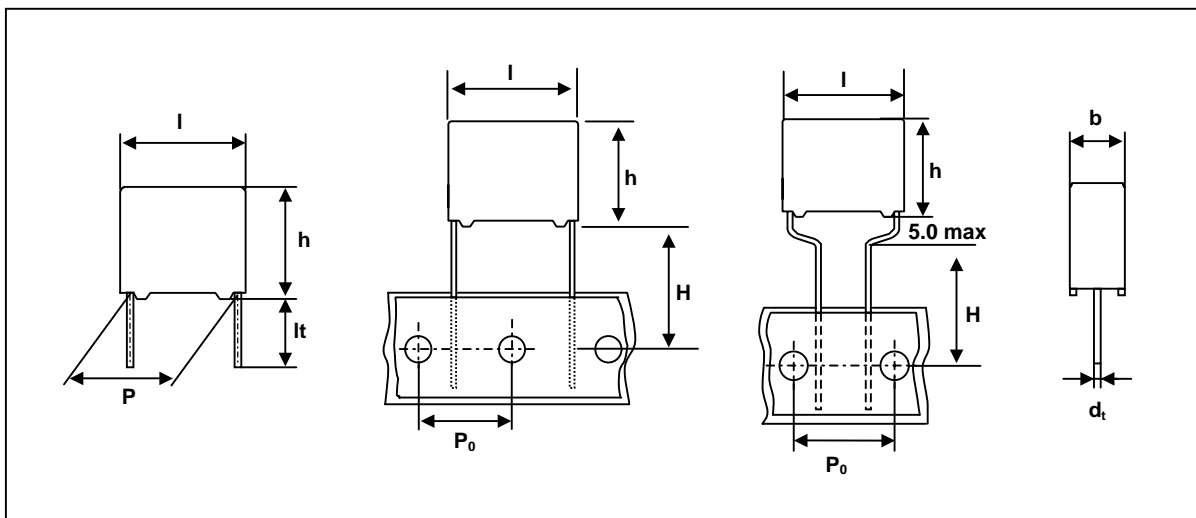
FEATURES	APPLICATIONS
<ul style="list-style-type: none"> . Low inductive wound cell of metallized (PETP) film . Supplied loose in box and ammopack 	<ul style="list-style-type: none"> . General purpose . Blocking and coupling . Bypass and energy reservoir application

- Please refer to caution and warning at <http://www.pilkor.co.kr/download/Introductions.pdf> before using these products.

Metallized Polyester film capacitors

PCMT 468

Ordering Information



PCMT 468 (X) X X XXX

Type series

Capacitance

Code	Voltage
2	100V
4	250V
5	400V
6	630V
8	400V mini

*Code	Original pitch
D	10.0mm
F	15.0mm
J	22.5mm

* In case of overlapping the value, use the 13NC with pitch information.

Available versions					Product (I _{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	±10%	lt = 5.0±1.0mm	-	10.0	15.0	22.5	27.5
4	Loose in box	± 5%	lt = 25.0±2.0mm	-	10.0	15.0	22.5	27.5
5	Loose in box	±10%	lt = 25.0±2.0mm	-	10.0	15.0	22.5	27.5
6	Ammo packing	± 5%	H=18.5mm	15.0mm	10.0	15.0	22.5	27.5
7	Ammo packing	±10%	H=18.5mm	15.0mm	10.0	15.0	22.5	27.5
8	Ammo packing	± 5%	H=18.5mm	12.7mm	10.0	15.0	22.5	27.5
9	Ammo packing	±10%	H=18.5mm	12.7mm	10.0	15.0	22.5	27.5
A	Ammo packing	± 5%	H=16mm	15.0mm	7.5(*)	7.5(*)	-	-
B	Ammo packing	±10%	H=16mm	15.0mm	7.5(*)	7.5(*)	-	-
R	Loose in box	± 5%	lt = 3.2±0.3mm	-	10.0	15.0	22.5	27.5
S	Loose in box	±10%	lt = 3.2±0.3mm	-	10.0	15.0	22.5	27.5

* Reduced pitch (reduced lead spacings)

**Metallized Polyester
film capacitors**

PCMT 468

Packaging Information

SMALLEST PACKING QUANTITIES (SPQ)	Loose in box	
	It = 5 ± 1.0 mm It = 3.2 ± 0.3 mm	It = 25 ± 2.0 mm
DIMENSIONS	SPQ	SPQ
4.0 x 10.0 x 12.5	2000	1200
5.0 x 11.0 x 12.5	1500	1000
6.0 x 12.0 x 12.5	1000	1000
5.0 x 11.0 x 18.0	1000	1000
6.0 x 12.0 x 18.0	1000	1000
7.0 x 13.5 x 18.0	1000	1000
8.5 x 15.0 x 18.0	1000	1000
10.0 x 16.5 x 18.0	1000	1000
11.0 x 18.5 x 18.0	1000	1000
7.0 x 16.5 x 26.0	1000	1000
8.5 x 18.0 x 26.0	500	500
10.0 x 19.5 x 26.0	500	500
13.0 x 23.0 x 26.0	500	500
11.0 x 21.0 x 31.0	500	250
13.0 x 23.0 x 31.0	250	250
15.0 x 25.0 x 31.0	250	250
18.0 x 28.0 x 31.0	200	200

**Metallized Polyester
film capacitors**
PCMT 468
 $V_{Rdc} = 100V$
 $V_{Rac} = 63V\sim$


Cap. (μF)	b x h x l (mm)	Mass (g)	CATALOGUE NUMBER	
			PCMT 468	
			loose in box	
			lt = 5 \pm 1 mm	
			C-tol. \pm 5 %	C-tol. \pm 10 %
Pitch = 10.0 \pm 0.4 mm			dt = 0.6 +0.06/-0.05 mm	
0.22 0.27 0.33	4.0 x 10.0 x 12.5	0.8	PCMT 468 22224 PCMT 468 22274 PCMT 468 22334	PCMT 468 23224 PCMT 468 23274 PCMT 468 23334
0.39 0.47	5.0 x 11.0 x 12.5	0.9	PCMT 468 22394 PCMT 468 22474	PCMT 468 23394 PCMT 468 23474
0.56 0.68 0.82 1.0	6.0 x 12.0 x 12.5	1.0	PCMT 468 22564 PCMT 468 22684 PCMT 468D22824 PCMT 468D22105	PCMT 468 23564 PCMT 468 23684 PCMT 468D23824 PCMT 468D23105
Pitch = 15.0 \pm 0.4 mm			dt = 0.8 +0.08/-0.05 mm	
0.82	5.0 x 11.0 x 18.0	1.2	PCMT 468 22824	PCMT 468 23824
1.0 1.2	6.0 x 12.0 x 18.0	1.4	PCMT 468 22105 PCMT 468 22125	PCMT 468 23105 PCMT 468 23125
1.5	7.0 x 13.5 x 18.0	1.9	PCMT 468 22155	PCMT 468 23155
1.8 2.2	8.5 x 15.0 x 18.0	2.6	PCMT 468 22185 PCMT 468 22225	PCMT 468 23185 PCMT 468 23225
2.7	10.0 x 16.5 x 18.0	3.1	PCMT 468F22275	PCMT 468F23275
3.3	11.0 x 18.5 x 18.0	4.1	PCMT 468F22335	PCMT 468F23335
Pitch = 22.5 \pm 0.4 mm			dt = 0.8 +0.08/-0.05 mm	
2.7 3.3	7.0 x 16.5 x 26.0	3.2	PCMT 468 22275 PCMT 468 22335	PCMT 468 23275 PCMT 468 23335
3.9 4.7	8.5 x 18.0 x 26.0	4.4	PCMT 468 22395 PCMT 468 22475	PCMT 468 23395 PCMT 468 23475
5.6 6.8	10.0 x 19.5 x 26.0	5.5	PCMT 468 22565 PCMT 468 22685	PCMT 468 23565 PCMT 468 23685

**Metallized Polyester
film capacitors**
PCMT 468
 $V_{Rdc} = 250V$
 $V_{Rac} = 160V\sim$

Cap. (μF)	b x h x l (mm)	Mass (g)	CATALOGUE NUMBER	
			PCMT 468	
			loose in box	
			lt = 5 \pm 1 mm	
			C-tol. \pm 5 %	C-tol. \pm 10 %
Pitch = 10.0 \pm 0.4 mm			dt = 0.6 +0.06/-0.05 mm	
0.1 0.12	4.0 x 10.0 x 12.5	0.8	PCMT 468 42104 PCMT 468 42124	PCMT 468 43104 PCMT 468 43124
0.15 0.18 0.22 0.27 0.33	5.0 x 11.0 x 12.5	0.9	PCMT 468 42154 PCMT 468 42184 PCMT 468D42224 PCMT 468D42274 PCMT 468D42334	PCMT 468 43154 PCMT 468 43184 PCMT 468D43224 PCMT 468D43274 PCMT 468D43334
0.39 0.47	6.0 x 12.0 x 12.5	1.0	PCMT 468D42394 PCMT 468D42474	PCMT 468D43394 PCMT 468D43474
Pitch = 15.0 \pm 0.4 mm			dt = 0.8 +0.08/-0.05 mm	
0.22 0.27 0.33	5.0 x 11.0 x 18.0	1.2	PCMT 468 42224 PCMT 468 42274 PCMT 468 42334	PCMT 468 43224 PCMT 468 43274 PCMT 468 43334
0.39 0.47	6.0 x 12.0 x 18.0	1.4	PCMT 468 42394 PCMT 468 42474	PCMT 468 43394 PCMT 468 43474
0.56 0.68	7.0 x 13.5 x 18.0	1.9	PCMT 468 42564 PCMT 468 42684	PCMT 468 43564 PCMT 468 43684
0.82 1.0 1.2 1.5	8.5 x 15.0 x 18.0	2.6	PCMT 468 42824 PCMT 468 42105 PCMT 468F42125 PCMT 468F42155	PCMT 468 43824 PCMT 468 43105 PCMT 468F43125 PCMT 468F43155
Pitch = 22.5 \pm 0.4 mm			dt = 0.8 +0.08/-0.05 mm	
1.0 1.2	7.0 x 16.5 x 26.0	3.2	PCMT 468J42105 PCMT 468 42125	PCMT 468J43105 PCMT 468 43125
1.5 1.8	8.5 x 18.0 x 26.0	4.4	PCMT 468 42155 PCMT 468 42185	PCMT 468 43155 PCMT 468 43185
2.2 2.7 3.3	10.0 x 19.5 x 26.0	5.5	PCMT 468 42225 PCMT 468 42275 PCMT 468J42335	PCMT 468 43225 PCMT 468 43275 PCMT 468J43335
3.9 4.7	13.0 x 23.0 x 26.0	9.7	PCMT 468J42395 PCMT 468J42475	PCMT 468J43395 PCMT 468J43475
Pitch = 27.5 \pm 0.4 mm			dt = 0.8 +0.08/-0.05 mm	
3.3	11.0 x 21.0 x 31.0	7.8	PCMT 468 42335	PCMT 468 43335
3.9 4.7 5.6	13.0 x 23.0 x 31.0	10.4	PCMT 468 42395 PCMT 468 42475 PCMT 468 42565	PCMT 468 43395 PCMT 468 43475 PCMT 468 43565
6.8	15.0 x 25.0 x 31.0		PCMT 468 42685	PCMT 468 43685

**Metallized Polyester
film capacitors**
PCMT 468

$V_{Rdc} = 400V$		$V_{Rac} = 220V^{~~}$		mini type	
Cap. (μF)	b x h x l (mm)	Mass (g)	CATALOGUE NUMBER		
			PCMT 468		
			loose in box		
			lt = 5 \pm 1 mm		
		C-tol. \pm 5 %	C-tol. \pm 10 %		
Pitch = 10.0 \pm 0.4 mm		dt = 0.6 +0.06/-0.05 mm			
0.01 0.012 0.015 0.018 0.022 0.027 0.033 0.039 0.047	4.0 x 10.0 x 12.5	0.8	PCMT 468 82103 PCMT 468 82123 PCMT 468 82153 PCMT 468 82183 PCMT 468 82223 PCMT 468 82273 PCMT 468 82333 PCMT 468 82393 PCMT 468 82473	PCMT 468 83103 PCMT 468 83123 PCMT 468 83153 PCMT 468 83183 PCMT 468 83223 PCMT 468 83273 PCMT 468 83333 PCMT 468 83393 PCMT 468 83473	
0.056 0.068	5.0 x 11.0 x 12.5	0.9	PCMT 468 82563 PCMT 468 82683	PCMT 468 83563 PCMT 468 83683	
0.082 0.1	6.0 x 12.0 x 12.5	1.0	PCMT 468 82823 PCMT 468 82104	PCMT 468 83823 PCMT 468 83104	
Pitch = 15.0 \pm 0.4 mm		dt = 0.8 +0.08/-0.05 mm			
0.12 0.15	5.0 x 11.0 x 18.0	1.2	PCMT 468 82124 PCMT 468 82154	PCMT 468 83124 PCMT 468 83154	
0.15 0.18 0.20 0.22	6.0 x 12.0 x 18.0	1.4	PCMT 468 52154 PCMT 468 82184 PCMT 468 82204 PCMT 468 82224	PCMT 468 53154 PCMT 468 83184 PCMT 468 83204 PCMT 468 83224	
0.22 0.27 0.33	7.0 x 13.5 x 18.0	1.9	PCMT 468 52224 PCMT 468 82274 PCMT 468 82334	PCMT 468 53224 PCMT 468 83274 PCMT 468 83334	
0.33 0.39 0.47	8.5 x 15.0 x 18.0	2.6	PCMT 468 52334 PCMT 468 82394 PCMT 468 82474	PCMT 468 53334 PCMT 468 83394 PCMT 468 83474	
0.56	10.0 x 16.5 x 18.0		PCMT 468 82564	PCMT 468 83564	
Pitch = 22.5 \pm 0.4 mm		dt = 0.8 +0.08/-0.05 mm			
0.47	7.0 x 16.5 x 26.0	3.2	PCMT 468 52474	PCMT 468 53474	
0.68 0.82	8.5 x 18.0 x 26.0	4.4	PCMT 468 82684 PCMT 468 82824	PCMT 468 83684 PCMT 468 83824	
1.0 1.2	10.0 x 19.5 x 26.0	5.5	PCMT 468 82105 PCMT 468 82125	PCMT 468 83105 PCMT 468 83125	
Pitch = 27.5 \pm 0.4 mm		dt = 0.8 +0.08/-0.05 mm			
1.2 1.5 1.8	11.0 x 21.0 x 31.0	7.8	PCMT 468 52125 PCMT 468 82155 PCMT 468 82185	PCMT 468 53125 PCMT 468 83155 PCMT 468 83185	
2.2 2.7	13.0 x 23.0 x 31.0	12.8	PCMT 468 82225 PCMT 468 82275	PCMT 468 83225 PCMT 468 83275	
3.3 3.9	15.0 x 25.0 x 31.0	17.2	PCMT 468 82335 PCMT 468 82395	PCMT 468 83335 PCMT 468 83395	
4.7	18.0 x 28.0 x 31.0	19.6	PCMT 468 82475	PCMT 468 83475	

 ; Larger type

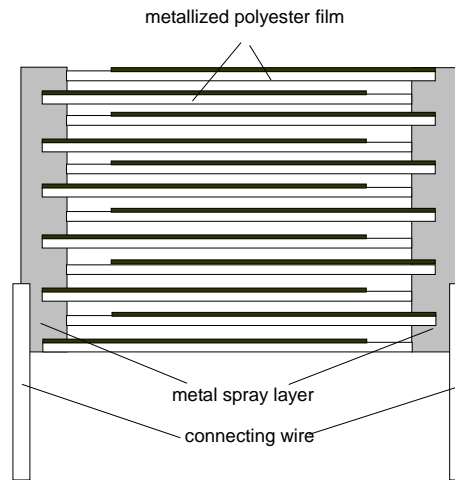
**Metallized Polyester
film capacitors**
PCMT 468
 $V_{Rdc} = 630V$
 $V_{Rac} = 250V\sim$

Cap. (μF)	b x h x l (mm)	Mass (g)	CATALOGUE NUMBER	
			PCMT 468	
			loose in box	
			lt = 5 \pm 1 mm	
			C-tol. \pm 5 %	C-tol. \pm 10 %
Pitch = 10.0 \pm 0.4 mm			dt = 0.6 +0.06/-0.05 mm	
0.01 0.012	4.0 x 10.0 x 12.5	0.8	PCMT 468 62103 PCMT 468 62123	PCMT 468 63103 PCMT 468 63123
0.015 0.018 0.022 0.027 0.033	5.0 x 11.0 x 12.5	0.9	PCMT 468 62153 PCMT 468 62183 PCMT 468 62223 PCMT 468 62273 PCMT 468 62333	PCMT 468 63153 PCMT 468 63183 PCMT 468 63223 PCMT 468 63273 PCMT 468 63333
0.039 0.047	6.0 x 12.0 x 12.5	1.0	PCMT 468 62393 PCMT 468 62473	PCMT 468 63393 PCMT 468 63473
Pitch = 15.0 \pm 0.4 mm			dt = 0.8 +0.08/-0.05 mm	
0.047 0.056	5.0 x 11.0 x 18.0	1.2	PCMT 468F62473 PCMT 468 62563	PCMT 468F63473 PCMT 468 63563
0.068 0.082	6.0 x 12.0 x 18.0	1.4	PCMT 468 62683 PCMT 468 62823	PCMT 468 63683 PCMT 468 63823
0.1 0.12	7.0 x 13.5 x 18.0	1.9	PCMT 468 62104 PCMT 468 62124	PCMT 468 63104 PCMT 468 63124
0.15 0.18	8.5 x 15.0 x 18.0	2.6	PCMT 468 62154 PCMT 468 62184	PCMT 468 63154 PCMT 468 63184
0.22	10.0 x 16.5 x 18.0	3.1	PCMT 468F62224	PCMT 468F63224
Pitch = 22.5 \pm 0.4 mm			dt = 0.8 +0.08/-0.05 mm	
0.22 0.27	7.0 x 16.5 x 26.0	3.2	PCMT 468 62224 PCMT 468 62274	PCMT 468 63224 PCMT 468 63274
0.33 0.39	8.5 x 18.0 x 26.0	4.4	PCMT 468 62334 PCMT 468 62394	PCMT 468 63334 PCMT 468 63394
0.47 0.56	10.0 x 19.5 x 26.0	5.5	PCMT 468 62474 PCMT 468 62564	PCMT 468 63474 PCMT 468 63564
Pitch = 27.5 \pm 0.4 mm			dt = 0.8 +0.08/-0.05 mm	
0.68	11.0 x 21.0 x 31.0	7.8	PCMT 468 62684	PCMT 468 63684
0.82	13.0 x 23.0 x 31.0	10.4	PCMT 468 62824	PCMT 468 63824
1.0	15.0 x 25.0 x 31.0	12.8	PCMT 468 62105	PCMT 468 63105
1.2	18.0 x 28.0 x 31.0	17.2	PCMT 468 62125	PCMT 468 63125

Metallized Polyester film capacitors

PCMT 468

CONSTRUCTION



Description

- . Low-inductive wound cell of metallized polyester film, potted in a epoxy resin in a 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 bandoliers are designed for mounting on printed-circuit boards by means of automatic insertion machines.

SPECIFIC METHOD OF MOUNTING OF WITHSTAND VIBRATION AND SHOCK.

In order to withstand vibration and shock tests, it must be ensured that the stand-off pips are in good contact with the printed-circuit boards.

- . For I_{max} 18mm 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 free air temperature of 23 ± 1 , 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 over 96 ± 4 hours by heating the products in a circulating air oven at the rated temperature and a relative humidity not exceeding 20%.

Metallized Polyester film capacitors

PCMT 468

CHARACTERISTICS

● Test Voltage

- Test Voltage (between leads) : $1.6 \times V_{Rdc}$, 1 min (cut off current 10mA, rise time 100V/s)
- Test Voltage (between leads and case) : $2.0 \times V_{Rdc}$, 1 min

● Dissipation Factor

Rated voltage	Capacitance			Tangent of loss angle ($\times 10^{-4}$)	
				1 KHz	10 KHz
100 V	0.27 μ F	< C	1.0 μ F	75	130
	1.0 μ F	< C	6.8 μ F	75	150
250 V		C	0.1 μ F	75	130
	0.1 μ F	< C	1.0 μ F	75	130
	1.0 μ F	< C	6.8 μ F	75	150
		C	0.1 μ F	75	130
400 V		C	0.1 μ F	75	130
	0.1 μ F	< C	1.0 μ F	75	130
	1.0 μ F	< C	4.7 μ F	75	150
		C	0.1 μ F	75	130
630 V		C	0.1 μ F	75	130
	0.1 μ F	< C	1.0 μ F	75	130
	1.0 μ F	< C	1.2 μ F	75	150
		C	0.1 μ F	75	130

● Insulation Resistance

The insulation resistance is measured after a voltage has been applied for 1 minute ± 5 seconds, the voltage being 100 ± 15 V for the 100, 250 and 400V versions and 500 ± 50 V for the 630V versions.

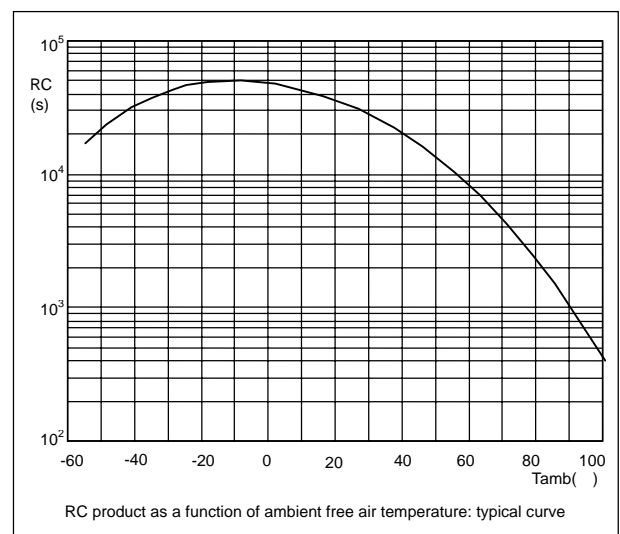
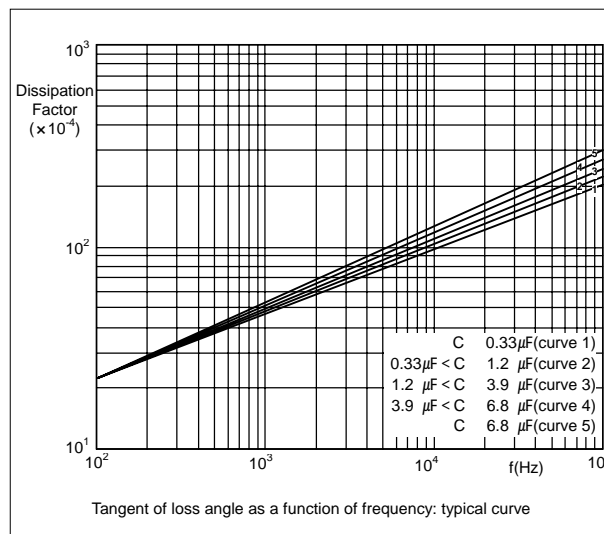
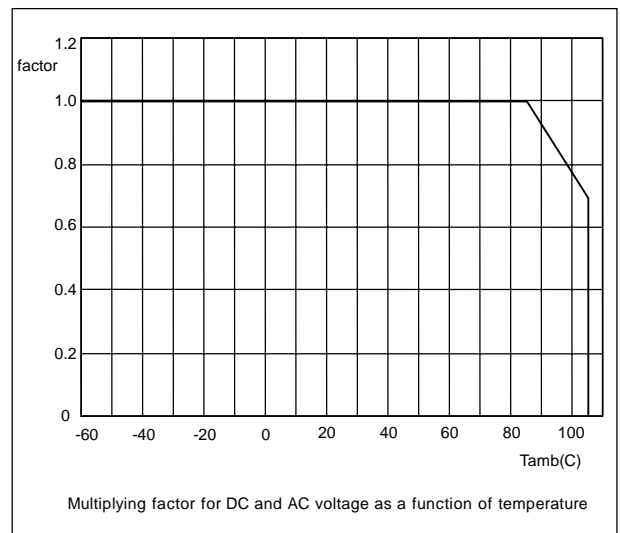
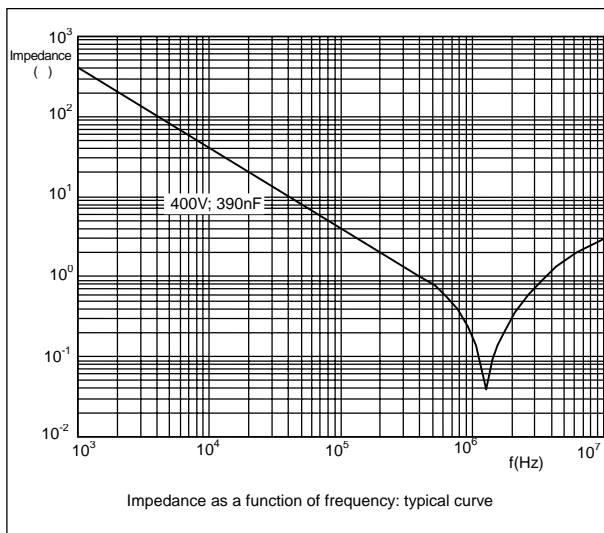
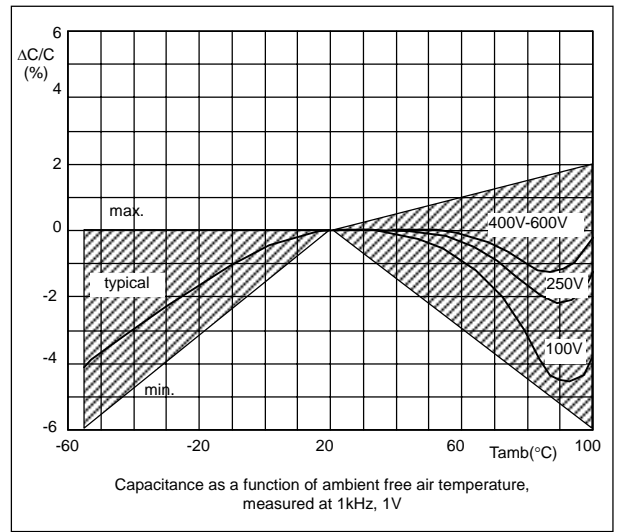
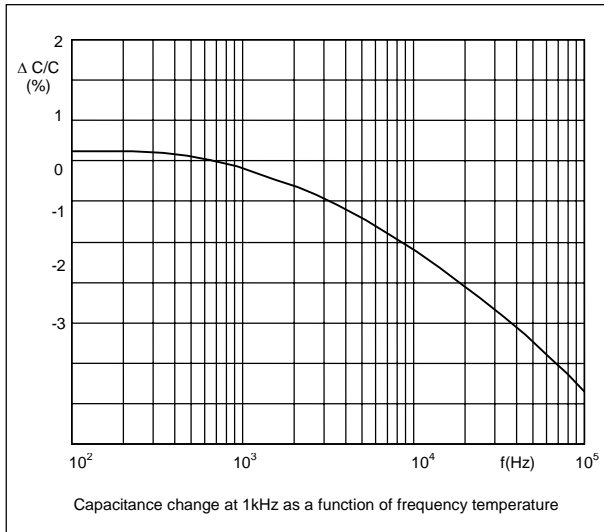
Rated voltage	Capacitance	R between leads (M Ω)	RC between leads (sec)
100 V	C > 0.33 μ F	-	> 5 000 s
250 V / 400 V / 630 V	C 0.33 μ F	> 30 000	-
	C > 0.33 μ F	-	> 10 000 s

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

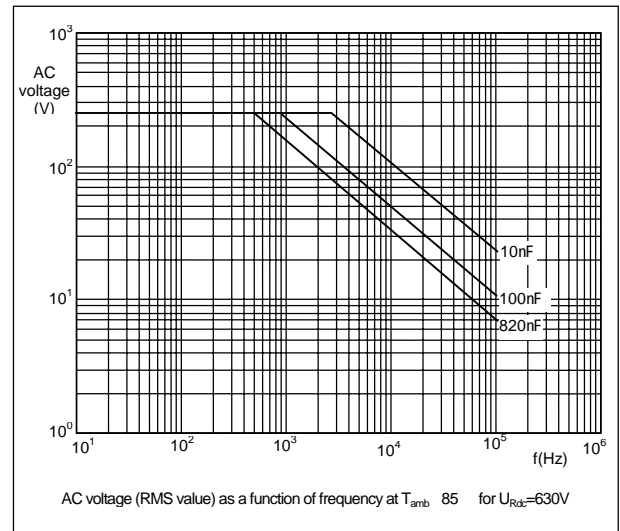
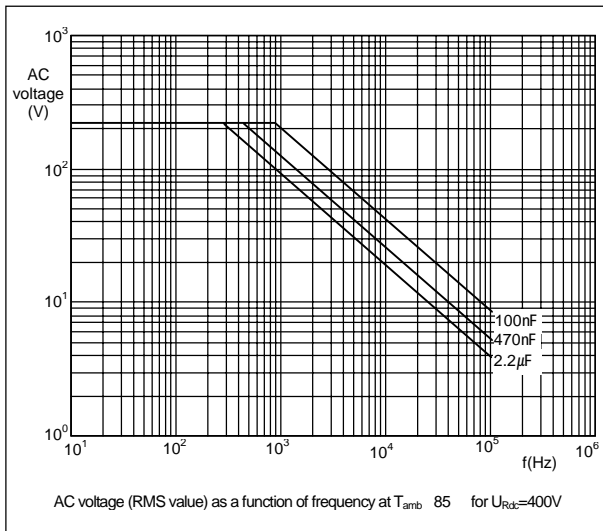
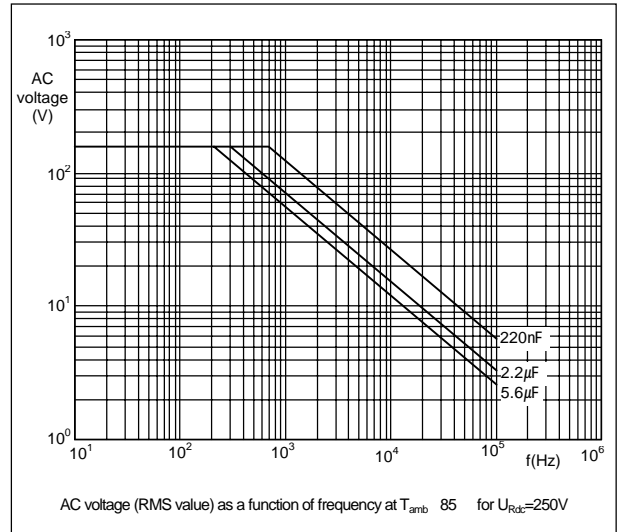
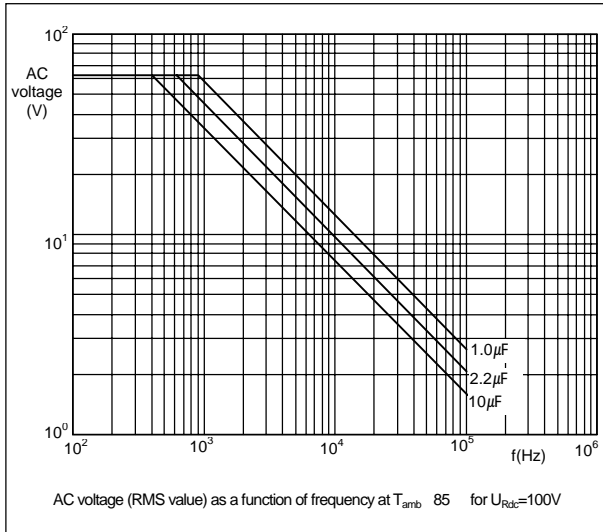
For values see specific reference data. If the pulse voltage is lower than the rated voltage, the values of the specific reference data must be multiplied by V_{Rdc} and divided by the applied voltage.

Rated voltage	Rated pulse load(V/ μ s) as a function of I_{max}			
	$I_{max} = 12.5$ mm	$I_{max} = 18.0$ mm	$I_{max} = 26.0$ mm	$I_{max} = 31.0$ mm
100 V	30	20	20	-
250 V	120	45	20	15
400 V	170	65	30	25
630 V	120	90	35	30

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 ionization 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 :

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

T is the pulse duration.

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

Voltage conditions for above.

ALLOWED VOLTAGES	$T_{amb} \leq 85$	$T_{amb} = 105$
Maximum continuous RMS voltage	V_{Rac}	$0.7 \times V_{Rac}$
Maximum temporary RMS over voltage (<24 hrs)	$1.25 \times V_{Rac}$	$0.875 \times V_{Rac}$

**Metallized Polyester
film capacitors**

PRODUCT MARKING

The capacitors are marked on the top and side or on the top with the following information ;

- . Rated capacitance in code according to IEC 60062
- . Tolerance on rated capacitance : J = $\pm 5\%$, K = $\pm 10\%$
- . Rated DC voltage : (e.g. 400V)
- . Manufacturer's type designation : (468)
- . Code for dielectric material : (MKT(ME))

Example of marking

pitch = 10mm

100n J 630V 468 MKT PILKOR

Marking on the side

pitch = 15mm

100n J 630V 468 MKT(ME)

Marking on the top

PILKOR WK....

Marking on the side

pitch = 22.5mm / 27.5mm

470n J 400V PILKOR 468 MKT(ME) WK....
--

Marking on the top

470n J 400V 468 MKT(ME)

Marking on the top

PILKOR WK....

Marking on the side