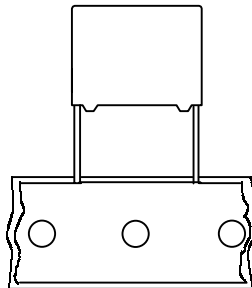
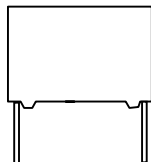


**Interference Suppression
film capacitors**

PCX2 337

MKP RADIAL POTTED CAPACITORS

Pitch 10.0/15.0/22.5/27.5 mm



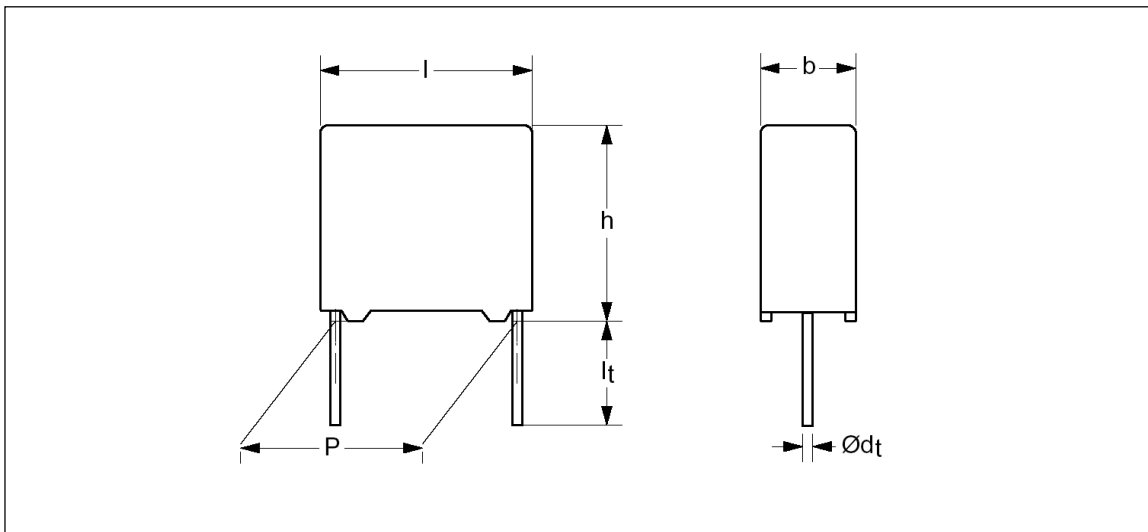
QUICK REFERENCE DATA

<p>Capacitance range (E6 series) *</p> <p>Capacitance tolerance</p> <p>Rated (AC) voltage 50 to 60 Hz</p> <p>Climatic category</p> <p>Rated temperature</p> <p>Maximum application temperature</p> <p>Reference IEC specification</p> <p>Safety approvals</p> <p style="padding-left: 40px;">250Vac</p> <p style="padding-left: 40px;">275Vac</p> <p>Materials</p> <p>Safety class</p>	<p>0.01μF to 3.3μF</p> <p>$\pm 10\%$, $\pm 20\%$</p> <p>275 V\sim</p> <p>40/100/21</p> <p>100 °C</p> <p>100 °C</p> <p>IEC 60384-14(2nd edition) and EN 132400</p> <p>UL1414, CSA-C22.2 No 1,</p> <p>VDE, FI ,SEMKO,NEMKO, DEMKO, SEV, OVE, IMQ,</p> <p>EK, ENEC,UL1283, CSA-C22.2 No 8</p> <p>Qualified in accordance with UL 94V-O</p> <p>X2</p>
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* Intermediate values of the E12 series are available to special order

<p>FEATURES</p> <ul style="list-style-type: none"> . 10 to 27.5 mm lead pitch . Supplied loose in box and taped on reel . Consist of a low-inductive wound cell of Metallized (PP) film . potted in a flame retardant case 	<p>APPLICATIONS</p> <ul style="list-style-type: none"> . For X2-electromagnetic interference suppression . Specially designed to meet the NEW REQUIREMENTS of new IEC 60384-14 Specification(2nd edition)/EN 132400 requiring a 2.5kV peak pulse voltage test and the UL1414 and CSA-C22.2 No 1 specification
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Ordering Information



PCX2 337 **X** **X** **XXX**

Type series

Capacitance

code	Voltage
1	275Vac

code	Packing method	Lead configuration	C - tol	12NC**
0	Loose in box	lt = 5.0 ± 1.0mm	C-tol ± 20 %	PCX2 337 x0xxx
1	Loose in box	lt = 5.0 ± 1.0mm	C-tol ± 10 %	PCX2 337x1xxx
4	Loose in box	lt = 25 ± 2.0mm	C-tol ± 20 %	PCX2 337 x4xxx
5	Loose in box	lt = 25 ± 2.0mm	C-tol ± 10 %	PCX2 337 x5xxx
2	Taped on reel	H = 18.5 mm* / P ₀ =12.7mm	C-tol ± 20%	PCX2 337 x2xxx
3	Taped on reel	H = 18.5 mm* / P ₀ =12.7mm	C-tol ± 10%	PCX2 337 x3xxx
6	Ammopack	H = 18.5 mm* / P ₀ =12.7mm	C-tol ± 20%	PCX2 337 x6xxx
7	Ammopack	H = 18.5 mm* / P ₀ =12.7mm	C-tol ± 10%	PCX2 337 x7xxx
C	Loose in box	lt = 3.2 ± 0.3mm	C-tol ± 20%	PCX2 337 xCxxx
D	Loose in box	lt = 3.2 ± 0.3mm	C-tol ± 10%	PCX2 337 xDxxx

* H ; intape height ; for detailed specifications refer to chapter PACKAGING

** Some values do not follow coding rule.

Interference Suppression film capacitors

PCX2 337

SAFETY APPROVALS

UL 1414	0.01~1 μ F	E165646	VDE	0.01~3.3 μ F	135531
UL 1283	C >1 μ F	E208404	SEMKO	0.01~3.3 μ F	0031004/01
CSA-C22.2 No 1	0.01~1 μ F	LR103439	DEMKO	0.01~3.3 μ F	310538/01
CSA-C22.2 No 8	C >1 μ F	LR103439	NEMKO	0.01~3.3 μ F	P01100663
FI	0.01~3.3 μ F	FI 16613	IMQ	0.01~3.3 μ F	CA 08.00048
SEV	0.01~3.3 μ F	01, 1241	OVE	0.01~3.3 μ F	12876-003-00
EK	0.01~3.3 μ F	SH03001-2003	ENEC *	0.01~3.3 μ F	SE/0256-1
CQC	0.01~3.3 μ F	CQC04001009332			

* The ENEC-approval together with the CB-Certificate replace all national approval marks of the following countries(they have already signed the ENEC-Agreement): Austria; Belgium; Czech. Republic; Denmark; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Luxembourg; Netherlands; Norway; Portugal; Slovenian; Spain; Sweden; Switzerland and United Kingdom

Packaging Information

SMALLEST PACKING QUANTITIES (SPQ)	LOOSE IN BOX		
	DIMENSIONS	It = 3.2 \pm 0.3 mm	It = 5 \pm 1.0 mm
4.0 x 10.0 x 12.5	2000	2000	1200
5.0 x 11.0 x 12.5	1500	1500	1000
6.0 x 12.0 x 12.5	1000	1000	1000
7.0 x 13.5 x 18.0	1000	1000	1000
8.5 x 15.0 x 18.0	1000	1000	1000
10.0 x 16.5 x 18.0	1000	1000	1000
11.0 x 18.5 x 18.0	1000	1000	1000
12.0 x 20.0 x 18.0	1000	1000	1000
8.5 x 18.0 x 26.0	500	500	500
10.0 x 19.5 x 26.0	500	500	500
13.0 x 23.0 x 26.0	500	500	500
15.0 x 25.0 x 31.0	250	250	250
18.0 x 28.0 x 31.0	200	200	200
21.0 x 31.0 x 31.0	150	150	150

Interference Suppression film capacitors

PCX2 337

SPECIFIC REFERENCE DATA FOR 275 V_{AC}

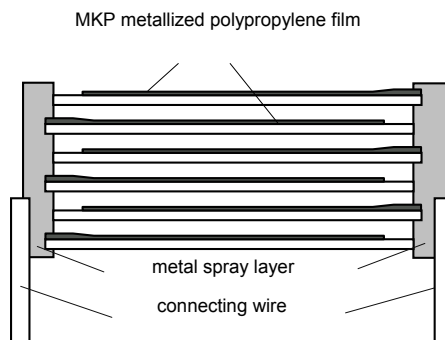
Tangent of loss angle	at 1 khz	at 10 khz
$C \leq 470 \mu\text{F}$ $470 \mu\text{F} < C \leq 1 \mu\text{F}$ $C > 1 \mu\text{F}$	$\leq 10 \times 10^{-4}$ $\leq 20 \times 10^{-4}$ $\leq 30 \times 10^{-4}$	$\leq 20 \times 10^{-4}$ $\leq 70 \times 10^{-4}$ -
Rated voltage pulse slope (dV/dt) _R	100 V/μs	
R between leads, for $C \leq 0.33 \mu\text{F}$	> 15 000 MΩ	
RC between leads, for $C > 0.33 \mu\text{F}$	> 5 000 s	
Test voltage (DC) on line: $C \leq 1 \mu\text{F}$ $1 \mu\text{F} < C \leq 3.3 \mu\text{F}$	2250 V, 1 min 1850 V, 1 min	

V_{Rac} = 275 V X2

loose and taped

Cap. (μF)	b x h x l (mm)	MASS (g)	CATALOGUE NUMBER			
			PCX2 337			
			loose in box			
			lt = 5 ± 1.0 mm		lt = 25 ± 2.0 mm	
		C - tol. ± 20 %	C - tol. ± 10 %	C - tol. ± 20 %	C - tol. ± 10 %	
Pitch = 10.0 ± 0.4 mm			dt = 0.6 +0.06/-0.05 mm			
0.01 0.015 0.022	4.0x 10.0x 12.5	0.8	10103 10153 10223	11103 11153 11223	14103 14153 14223	15103 15153 15223
0.033 0.047	5.0x 11.0 x 12.5	0.9	10333 10473	11333 11473	14333 14473	15333 15473
0.068 0.1	6.0 x 12.0 x 12.5	1.0	10683 10104	11683 11104	14683 14104	15683 15104
Pitch = 15.0 ± 0.4 mm			dt = 0.8 +0.08/-0.05 mm			
0.15	7.0 x 13.5 x 18.0	1.9	10154	11154	14154	15154
0.22	8.5 x 15.0 x 18.0	2.6	10224	11224	14224	15224
0.33	10.0 x 16.5 x 18.0	3.1	10334	11334	14334	15334
0.47	11.0 x 18.5 x 18.0	4.1	99001	99002	99003	99004
0.68	12.0 x 20.0 x 18.0	4.3	99007	99008	99009	99011
Pitch = 22.5 ± 0.4 mm			dt = 0.8 +0.08/-0.05 mm			
0.47	8.5 x 18.0 x 26.0	4.4	10474	11474	14474	15474
0.68	10.0 x 19.5 x 26.0	5.5	10684	11684	14684	15684
1.0	13.0 x 23.0 x 26.0	8.0	10105	11105	14105	15105
Pitch = 27.5 ± 0.4 mm			dt = 0.8 +0.08/-0.05 mm			
1.5	15.0 x 25.0 x 31.0	12.8	10155	11155	14155	15155
2.2	18.0 x 28.0 x 31.0	17.2	10225	11225	14225	15225
3.3	21.0 x 31.0 x 31.0	20.4	10335	11335	14335	15335

CONSTRUCTION



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.

For detailed specifications refer to chapter "PACKAGING".

SPECIFIC METHOD OF MOUNTING TO WITHSTAND VIBRATION AND SHOCK

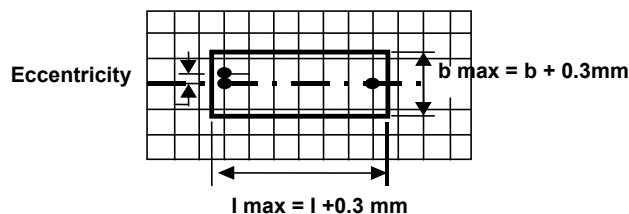
In order to withstand vibration and shock tests, it must be ensured that the stand-off pips are in good contact with the printed-circuit board.

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

SPACE REQUIREMENTS ON PRINTED-CIRCUIT BOARD

The maximum length and width of film capacitors are shown in the following drawing ;

- Eccentricity as in drawing.



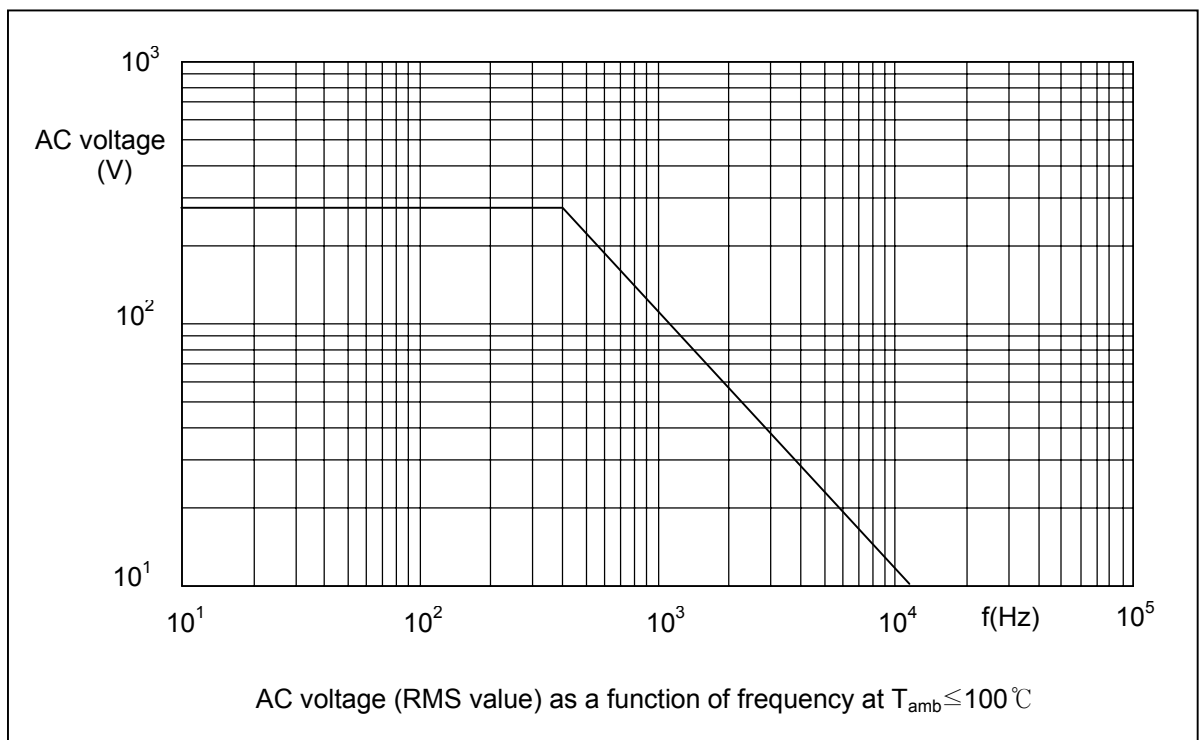
The maximum eccentricity is smaller than or equal to the lead diameter of the product concerned.

- Product height with seating plane as given by IEC 60717 as reference : $h_{max} \leq h + 0.3 \text{ mm}$

RATINGS AND CHARACTERISTICS

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

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%.

Maximum RMS Voltage as a function of frequency

PRODUCT MARKING

Capacitors are marked ; on the top (pitch ≥ 22.5 mm) or on the top and one side (pitch = 15mm/10mm) with the following information ;

- 1.Manufacturer (PILKOR) for capacitors with original pitch ≥ 15 mm,
PILKOR trade mark for pitch=10mm
- 2.Manufacturer's type designation (PCX2 337)
- 3.Rated capacitance in code according to IEC 60062
- 4.Rated (AC) voltage (275V~)
- 5.Sub class (X2)
- 6.Tolerance on rated capacitance M = ± 20 % K = ± 10 %
- 7.Climatic category (40/100/21)
- 8.Code for dielectric material (MKP) for capacitors with original pitch ≥ 15 mm
- 9.Year and week of manufacturing (e.g. WK0101)
- 10.Safety approvals


Example of marking :

Pitch P = 10mm (0.01 to 0.1 μ F)

10n M 275V~
337 X2 MKP

Marking on the top

WK...
PILKOR



Marking on the side

or

Pitch P = 15mm or Pitch P=22.5mm

150n M 275V~ X2
PCX2 337 MKP

Marking on the top

PILKOR WK02



40/100/21 250V~

Marking on the side

or

Pitch P = 22.5mm

470n M 275V~ X2
PCX2 337 MKP
PILKOR WK...

Marking on the top



40/100/21 250V~

or

470n M 275V~ X2
PCX2 337 MKP
PILKOR WK...

Marking on the top



40/100/21 250V~

Marking on the side

or

Pitch P = 27.5 mm.

1u5 M 275V~ X2
PCX2 337 MKP
PILKOR WK...

Marking on the top



40/100/21

Marking on the side