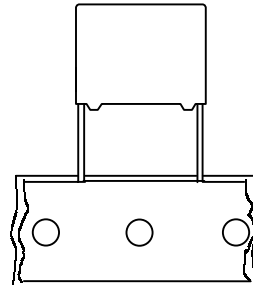
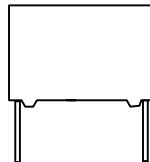


# Interference Suppression film capacitors

PCX2 335

MKP RADIAL POTTED CAPACITORS

Pitch 15.0/22.5/27.5 mm



## QUICK REFERENCE DATA

Capacitance range (E6 series) *	0.01 $\mu$ F to 1.0 $\mu$ F
Capacitance tolerance	$\pm 0\%$ , $\pm 0\%$
Rated(AC) voltage 50 to 60 Hz	275 V~
Climatic category	40/085/21
Rated temperature	85°C
Reference IEC specification	IEC 60384-14 (2 <sup>nd</sup> edition) and EN 132400
Safety approvals	UL 1414, CSA-C 22.2 No 1 (at 250 V <sub>AC</sub> ) SEV, VDE, S, FI, N, D, IMQ, OVE, EK, ENEC
Materials	Qualified in accordance with UL 94V-0
Safety class	X2

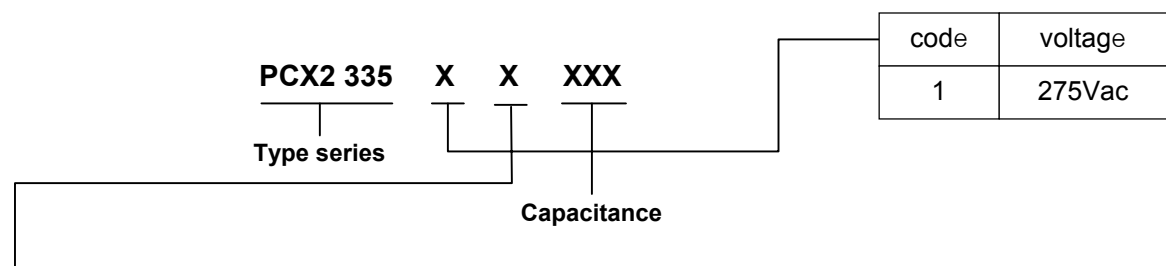
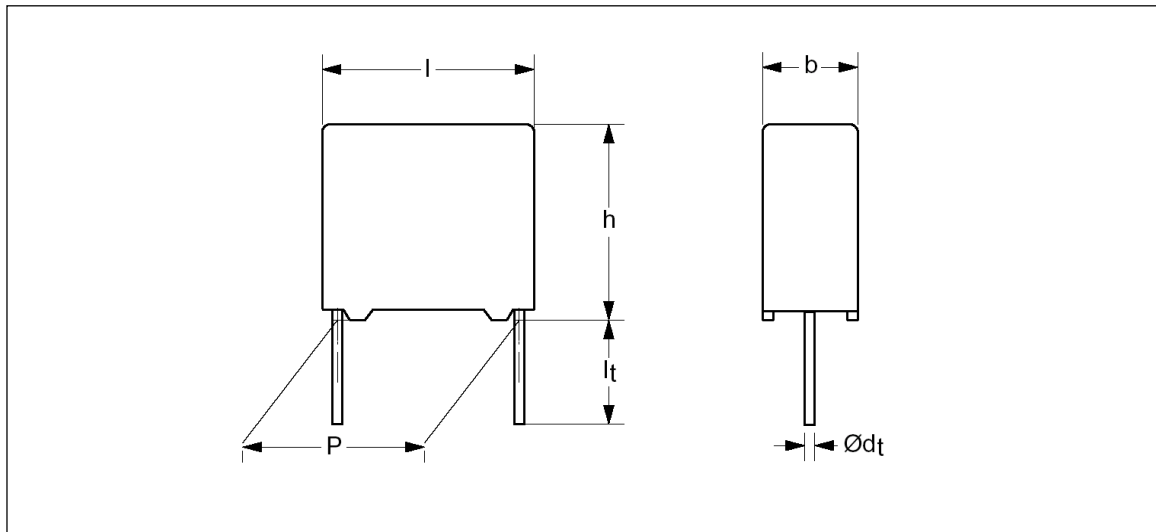
\* Intermediate values of the E12 series are available to special order

FEATURES	APPLICATIONS
<ul style="list-style-type: none"> <li>. 15mm to 27.5mm lead pitch</li> <li>. Supplied loose in box and taped on reel</li> <li>. Consist of a low-inductive wound cell of metallized polypropylene film, potted in a flame retardant case</li> </ul>	<ul style="list-style-type: none"> <li>. For X2 – electromagnetic interference suppression.</li> <li>. Special designed to meet the NEW REQUIREMENTS of the new IEC 60384-14 specification (2nd edition)/EN132400 requiring a 2.5KV peak pulse voltage test and the UL1414 and CSA-C 22.2 No. 1 specification.</li> </ul>

# Interference Suppression film capacitors

**PCX2 335**

## Ordering Information



code	Packing method	Lead configuration	C - tol	12NC
0	Loose in box	$l_t = 5.0 \pm 1.0\text{mm}$	C-tol $\pm 20 \%$	PCX2 335 x0xxx
1	Loose in box	$l_t = 5.0 \pm 1.0\text{mm}$	C-tol $\pm 10 \%$	PCX2 335 x1xxx
4	Loose in box	$l_t = 25 \pm 2.0\text{mm}$	C-tol $\pm 20 \%$	PCX2 335 x4xxx
5	Loose in box	$l_t = 25 \pm 2.0\text{mm}$	C-tol $\pm 10 \%$	PCX2 335 x5xxx
2	Taped on reel	$H = 18.5 \text{ mm}^* / P_0=12.7\text{mm}$	C-tol $\pm 20 \%$	PCX2 335 x2xxx
3	Taped on reel	$H = 18.5 \text{ mm}^* / P_0=12.7\text{mm}$	C-tol $\pm 10 \%$	PCX2 335 x3xxx
6	Ammopack	$H = 18.5 \text{ mm}^* / P_0=12.7\text{mm}$	C-tol $\pm 20 \%$	PCX2 335 x6xxx
7	Ammopack	$H = 18.5 \text{ mm}^* / P_0=12.7\text{mm}$	C-tol $\pm 10 \%$	PCX2 335 x7xxx
C	Loose in box	$l_t = 3.2 \pm 0.3\text{mm}$	C-tol $\pm 20 \%$	PCX2 335 xCxxx
D	Loose in box	$l_t = 3.2 \pm 0.3\text{mm}$	C-tol $\pm 10 \%$	PCX2 335 xDxxx

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

## Interference Suppression film capacitors

PCX2 335

### SAFETY APPROVALS

UL 1414	E165646	NEMKO	P96100387
CSA-C22.2 No 1	LR 103439	SEMKO	9602122-01
VDE	19798-4670-8001	DEMKO	305188
FI	181596-01	IMQ	V4006
SEV	95,5 51995,01	OVE	C876-000-01
EK	SH03001-2001	ENEC *	SE/0256-3

\* 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 = 5 ± 1.0 mm	It = 25 ± 2.0 mm
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
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
11.5 x 21.0 x 26.0	500	500
11.0 x 21.0 x 31.0	500	250
15.0 x 25.0 x 31.0	250	250
18.0 x 28.0 x 31.0	200	200

# Interference Suppression film capacitors

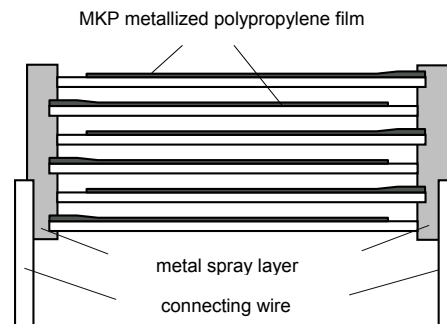
**PCX2 335****SPECIFIC REFERENCE DATA FOR 275 V<sub>AC</sub>**

Tangent of loss angle	at 10 khz
$C \leq 100 \text{ nF}$	$\leq 10 \times 10^{-4}$
$100 \text{ nF} < C \leq 470 \text{ nF}$	$\leq 20 \times 10^{-4}$
$C > 470 \text{ nF}$	$\leq 70 \times 10^{-4}$
Rated voltage pulse slope (dV/dt) <sub>R</sub>	100 V/ $\mu$ s
R between leads, for $C \leq 0.33 \text{ }\mu\text{F}$	> 30 000 M $\Omega$
RC between leads, for $C > 0.33 \text{ }\mu\text{F}$	> 10 000 s
Test (DC) voltage : rise time 100 V/s	2250 V, 1 min

**V<sub>Rac</sub> = 275 V****loose and taped**

Cap. ( $\mu$ F)	b x h x l (mm)	Mass (g)	CATALOGUE NUMBER			
			PCX2 335 .....			
			loose in box			
			lt = 5 $\pm$ 1.0 mm		lt = 25 $\pm$ 2.0 mm	
			C – tol. $\pm 20 \%$	C – tol. $\pm 10 \%$	C – tol. $\pm 20 \%$	C – tol. $\pm 10 \%$
Pitch = 15.0 $\pm$ 0.4 mm                      dt = 0.8 +0.08/-0.05 mm						
0.010	5.0 x 11.0 x 18.0		10103	11103	14103	15103
0.015	5.0 x 11.0 x 18.0		10153	11153	14153	15153
0.022	5.0 x 11.0 x 18.0		10223	11223	14223	15223
0.033	5.0 x 11.0 x 18.0		10333	-	14333	-
0.033	6.0 x 12.0 x 18.0		-	11333	-	15333
0.047	6.0 x 12.0 x 18.0		10473	11473	14473	15473
0.068	7.0 x 13.5 x 18.0		10683	11683	14683	15683
0.10.	8.5 x 15.0 x 18.0		10104	11104	14104	15104
Pitch = 22.5 $\pm$ 0.4 mm                      dt = 0.8 +0.08/-0.05 mm						
0.15	7.0 x 16.5 x 26.0		10154	11154	14154	15154
0.22	8.5 x 18.0 x 26.0		10224	11224	14224	15224
0.33	10.0 x 19.5 x 26.0		10334	11334	14334	15334
0.47	11.5 x 21.0 x 26.0		10474	-	14474	-
Pitch = 27.5 $\pm$ 0.4 mm                      dt = 0.8 +0.08/-0.05 mm						
0.47	11.0 x 21.0 x 31.0		-	11474	-	15474
0.68	15.0 x 25.0 x 31.0		10684	11684	14684	15684
1.0.	18.0 x 28.0 x 31.0		10105	11105	14105	15105

## 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".

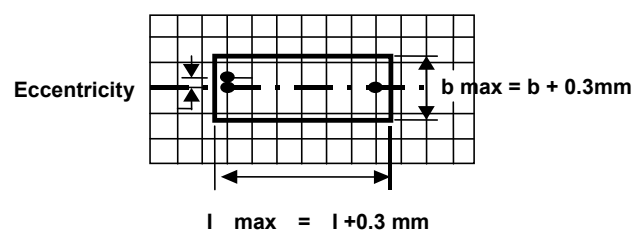
### SPECIFIC METHOD OF MOUNTING TO WITHSTAND VIBRATION AND SHOCK

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.

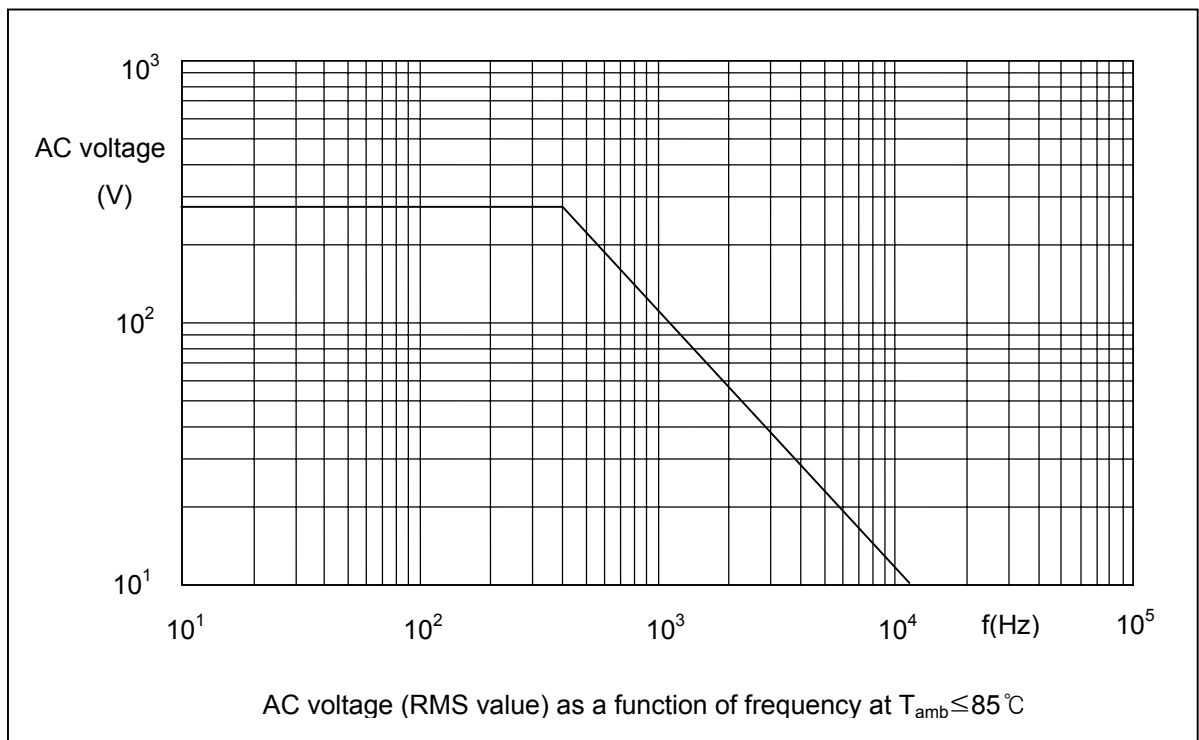
The maximum eccentricity is smaller than or equal to the lead diameter of the product concerned.

- 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 at 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  $\pm 4$  hours by heating the products in a circulating air oven at the rated temperature and a relative humidity not exceeding 20%.

**Maximum RMS Voltage and as a function of frequency**

# Interference Suppression film capacitors

PCX2 335

## PRODUCT MARKING

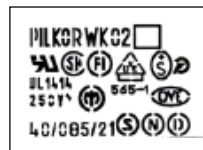
Capacitors are marked by laser print ; on the top (pitch  $\geq 22.5$  mm) or on the top and one side (pitch = 15mm) with the following information ;

- 1.Manufacturer (PILKOR)
- 2.Manufacturer's type designation (PCX2 335)
- 3.Rated capacitance in code according to IEC 60062
- 4.Rated (AC) voltage (275V~)
- 5.Sub class (X2)
- 6.Tolerance on rated capacitance M =  $\pm 20$  % K =  $\pm 10$  %
- 7.Climatic category (40/085/21)
- 8.Code for dielectric material (MKP)
- 9.Year and week of manufacturing (e.g. WK9601)
- 10.Safety approvals

Example of marking

22n M 275V~ X2  
PCX2 335 MKP

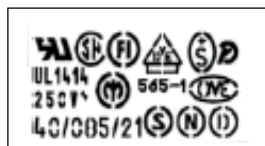
Marking on the top



Marking on the side

or

470n M 275V~  
PCX2 335 MKP X2  
PILKOR WK....



Marking on the top