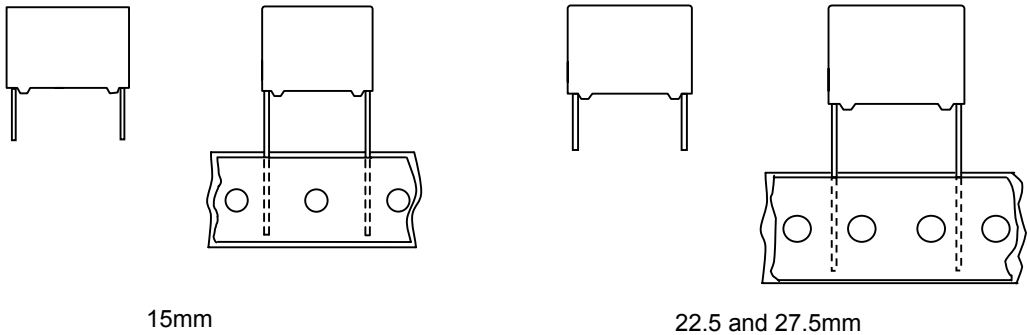


Series Impedance  
Film capacitors

PCX2 347

MKT RADIAL POTTED CAPACITORS

Pitch 15.0/22.5/27.5mm



QUICK REFERENCE DATA

Capacitance range (E6 series) *	0.1 $\mu$ F to 2.2 $\mu$ F
Capacitance tolerance	$\pm 10\%$ , $\pm 20\%$
Rated (AC) voltage 50 to 60 Hz	310 V~
Climatic category	55/110/56
Temperature range	-55 $^{\circ}$ C ~ +110 $^{\circ}$ C
Reference IEC, UL specification	IEC 60384-14(3rd edition) and UL60384-14
Safety approvals	ENEC UL60384-14
Potting & Encapsulation material	Qualified in accordance with UL 94V-0
Safety class	X2

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

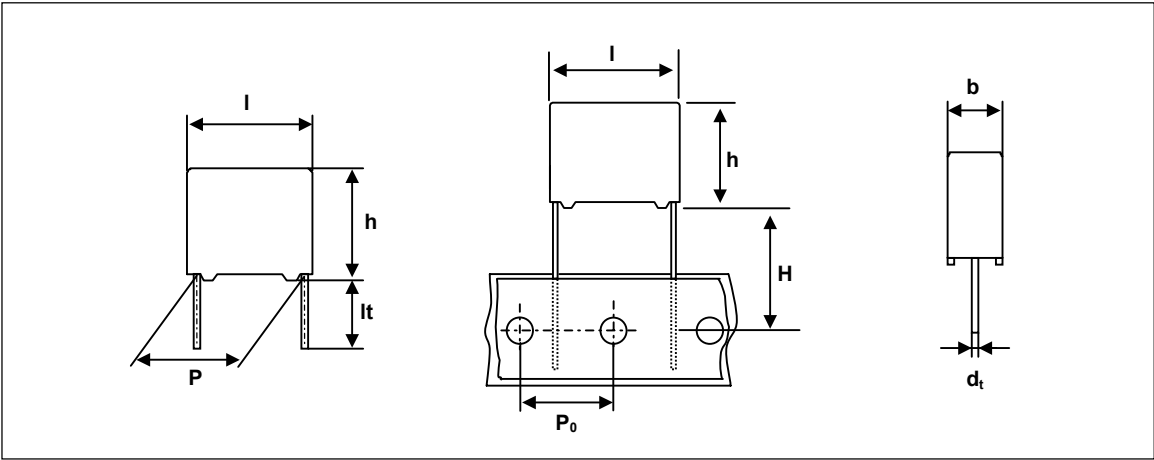
FEATURES	APPLICATIONS
<ul style="list-style-type: none"><li>. 15.0 to 27.5 mm lead pitch</li><li>. Supplied loose in box and taped on reel</li><li>. Consist of a low-inductive wound cell of Metallized Polyester film, potted in a flame retardant case</li></ul>	<ul style="list-style-type: none"><li>. For X2-electromagnetic interference suppression</li><li>. Specially designed to meet the NEW REQUIREMENTS in new IEC 60384-14 specification(3rd edition)/UL 60384-14 requiring for X2 a 2.5kV peak pulse voltage test</li><li>. Energy meter</li><li>. Stable capacitance in damp environment 85<math>^{\circ}</math>C85%RH, 240Vac, 1000hours</li></ul>

Main application _ In series with the powerline ( capacitive power supply )
<p>The diagram illustrates a capacitive power supply circuit. It shows two input lines, L (Line) and N (Neutral), connected to a capacitor (C) in series with a resistor (R). The output of this series combination is connected to a block labeled 'Application'.</p>

Series Impedance  
Film capacitors

PCX2 347

Ordering Information



PCX2 347    X    X    X    XXX

Capacitance

Code	Voltage
3	310V

Code	Original Pitch
F	15.0 mm
J	22.5 mm
L	27.5 mm

Available versions					Product (l <sub>max</sub> )		
code	Packing method	C – tol.	Lead length & Height	Hole to hole (P <sub>0</sub> )	18.0	26.0	31.0
					Pitch (P)		
0	Loose in box	± 20%	lt = 5.0 ± 1.0mm	-	15.0	22.5	27.5
1	Loose in box	± 10%	lt = 5.0 ± 1.0mm	-	15.0	22.5	27.5
4	Loose in box	± 20%	lt = 25.0 ± 2.0mm	-	15.0	22.5	27.5
5	Loose in box	± 10%	lt = 25.0 ± 2.0mm	-	15.0	22.5	27.5
6	Ammopack	± 20%	H = 18.5mm*	12.7mm	15.0	22.5	27.5
7	Ammopack	± 10%	H = 18.5mm*	12.7mm	15.0	22.5	27.5

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

\*\* Some values is not following the coding rule.

## Series Impedance Film capacitors

PCX2 347

### SAFETY APPROVALS

SAFETY APPROVALS	Voltage	Value	File Number
UL60384-14	310V(AC)	0.1 $\mu$ F to 2.2 $\mu$ F	E165646
ENEC(SEMKO) *	310V(AC)	0.1 $\mu$ F to 2.2 $\mu$ F	SE/0256-7

\* 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 = 5.0 ± 1.0 mm	It = 25 ± 2.0 mm
6.0 x 12.0 x 18.0	1000	1000
7.0 x 13.5 x 18.0	1000	1000
8.5 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
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
13.0 x 23.0 x 26.0	500	500
16.5 x 22.0 x 26.0	250	250
9.0 x 18.0 x 31.0	500	500
10.0 x 20.0 x 31.0	500	250
11.0 x 21.0 x 31.0	500	250
13.0 x 23.0 x 31.0	250	250
21.0 x 31.0 x 31.0	150	150

## Series Impedance Film capacitors

PCX2 347

### SPECIFIC REFERENCE DATA FOR 310 V<sub>AC</sub>

Tangent of loss angle	at 1 khz	at 10 khz
$C \leq 1 \mu F$	$\leq 80 \times 10^{-4}$	$\leq 150 \times 10^{-4}$
$C > 1 \mu F$	$\leq 80 \times 10^{-4}$	—
Rated voltage pulse slope (dV/dt) <sub>R</sub>	100 V/ $\mu$ s	
R between leads, for $C \leq 0.33 \mu F$	$> 15\,000 \text{ M}\Omega$	
RC between leads, for $C > 0.33 \mu F$	$> 5\,000 \text{ s}$	
Withstanding(DC) Voltage (cut-off current 10mA)	4.3* V <sub>R</sub> , 1min	

V<sub>Rac</sub> = 310V~ X2

loose and taped

Cap. ( $\mu F$ )	b x h x l (mm)	MASS (g)	CATALOGUE NUMBER			
			PCX2 347 .....			
			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						
0.1	6.0 x 12.0 x 18.0	1.4	F30104	F31104	F34104	F35104
0.15	7.0 x 13.5 x 18.0	1.9	F30154	F31154	F34154	F35154
0.22	8.5 x 15.0 x 18.0	2.6	F30224	F31224	F34224	F35224
0.33	10.0 x 16.5 x 18.0	3.1	F30334	F31334	F34334	F35334
0.47	11.0 x 18.5 x 18.0	4.1	F30474	F31474	F34474	F35474
Pitch = 22.5 $\pm$ 0.4 mm                      dt = 0.8 +0.08/-0.05 mm						
0.33	7.0 x 16.5 x 26.0	3.2	J30334	J31334	J34334	J35334
0.47	8.5 x 18.0 x 26.0	4.4	J30474	J31474	J34474	J35474
0.68	10.0 x 19.5 x 26.0	5.5	J30684	J31684	J34684	J35684
1.0	12.0 x 22.0 x 26.0	9.0	J30105	J31105	J34105	J35105
1.5	16.5 x 22.0 x 26.0	10.0	J30155	J31155	J34155	J35155
Pitch = 27.5 $\pm$ 0.4 mm                      dt = 0.8 +0.08/-0.05 mm						
0.47	9.0 x 19.0 x 31.0	5.5	L30474	L31474	L34474	L35474
0.68	10.0 x 20.0 x 31.0	6.5	L30684	L31684	L34684	L35684
1.0	11.0 x 21.0 x 31.0	7.8	L30105	L31105	L34105	L35105
1.5	13.0 x 23.0 x 31.0	10.4	L30155	L31155	L34155	L35155
2.2	21.0 x 31.0 x 31.0	20.5	L30225	L31225	L34225	L35225

### **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".

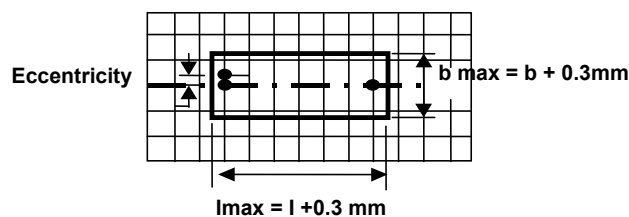
#### **SPECIFIC METHOD OF MOUNTING TO WITHSTAND VIBRATION AND SHOCK**

In order to withstand vibration and shock tests, it must be ensured that the stand-off pins 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 ;



- 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  $96 \pm 4$  hours by heating the products in a circulating air oven at the rated temperature and a relative humidity not exceeding 20%.

## Series Impedance Film capacitors

PCX2 347

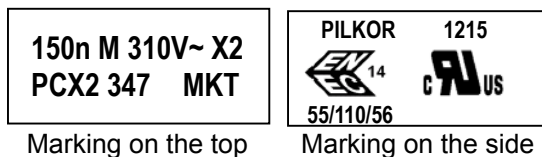
### PRODUCT MARKING

Capacitors are marked with having following information;

- 1.Manufacturer (PILKOR)
- 2.Manufacturer's type designation (PCX2 347 )
- 3.Rated capacitance in code according to IEC 60062
- 4.Rated (AC) voltage (310V~)
- 5.Sub class (X2)
- 6.Tolerance on rated capacitance M =  $\pm 20\%$  K =  $\pm 10\%$
- 7.Climatic category (55/110/56)
- 8.Metallized polyester film (MKT)
- 9.Year and week of manufacturing (e.g 1215)
- 10.Safety approvals

### Example of marking

Pitch P = 15.0mm or P = 22.5 mm or P = 27.5mm



Pitch P = 22.5 mm or P = 27.5mm

