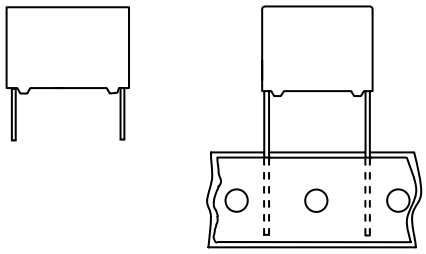
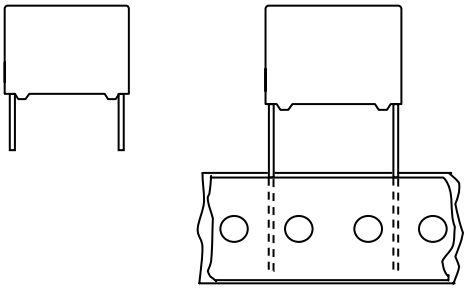
EMI Suppression film capacitors

PCY2 130

MKP RADIAL POTTED CAPACITORS **Pitch 10.0/15.0/22.5/27.5mm**



15mm



22.5 and 27.5mm

QUICK REFERENCE DATA

Capacitance range(E6 series) *	**0.001 μF to 0.47 μF**
Capacitance tolerance	**± 10 %, ± 20 %**
Rated (AC) voltage 50 to 60 Hz	**300 V~**
Climatic category	**55/105/21**
Temperature range	**-55℃ ~ +105℃**
Reference IEC specification	**IEC 60384-14(3rd edition) and EN 60384-14**
Safety approvals	**UL 1414 & CSA-C22.2 No. 1**
	UL 1283 & CSA-C22.2 No. 8, ENEC
Potting & Encapsulation material	**Qualified in accordance with UL 94V-0**
Safety class	**Y2**

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

FEATURES	**APPLICATIONS**
. 10 to 27.5 mm lead pitch	**. For Y2-electromagnetic interference suppression**
. Supplied loose in box and taped on reel	**. Specially designed to meet the NEW REQUIREMENTS**
. Consist of a low-inductive wound	**in new IEC 60384-14 specification(3rd edition)/EN 60384-14**
cell of Metallized Polypropylene	**requiring for Y2 a 5kV peak pulse voltage test**
film, potted in a flame retardant case	**and the UL1414 and CSA-C22.2 No. 1 specification**

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

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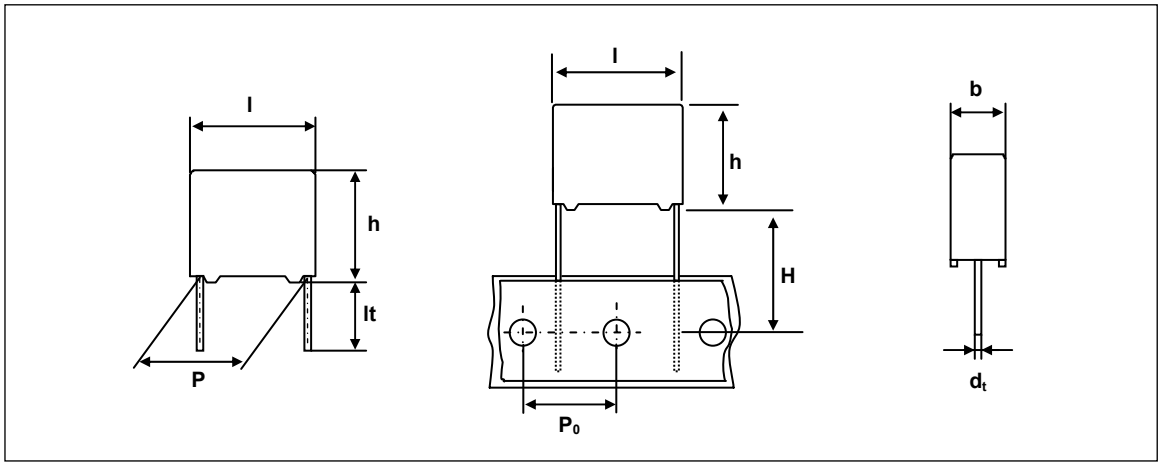
Ordering Information



PCY2 130 X X X X X X

Type series

Capacitance

Code	Voltage
3	300Vac

Code	Original pitch
D	10.0mm
F	15.0mm
J	22.5mm
L	27.5mm

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)			
0	Loose in box	±20%	lt = 5.0±1.0mm	-	10.0	15.0	22.5	27.5
1	Loose in box	±10%	lt = 5.0±1.0mm	-	10.0	15.0	22.5	27.5
4	Loose in box	±20%	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	Ammopack	±20%	H = 18.5mm	12.7mm	10.0	15.0	22.5	27.5
7	Ammopack	±10%	H = 18.5mm	12.7mm	10.0	15.0	22.5	27.5

** Some values is not following the coding rule.

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SAFETY APPROVALS

SAFETY APPROVALS	Voltage	Value	File Number
UL1414 & CSA-C 22.2 No. 1 (cUL)	250V(AC)	1nF to 470nF	E165646
UL1283 & CSA-C 22.2 No. 8 (cUL)	300V(AC)	1nF to 470nF	E208404
ENEC*(SEMKO)	300V(AC)	1nF to 470nF	SE/0256-5

* 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	lt = 5.0 ± 1.0 mm	lt = 25.0 ± 2.0 mm
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
7.0 x 16.5 x 26.0	1000	1000
8.5 x 18.0 x 26.0	1000	1000
10.0 x 19.5 x 26.0	500	500
12.0 x 22.0 x 26.0	500	500
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
21.0 x 31.0 x 31.0	150	150

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SPECIFIC REFERENCE DATA FOR 300 V_{AC}

Tangent of loss angle	at 1 khz	at 10 khz	at 100kHz
	≤ 10 x 10^{-4}	≤ 20 x 10^{-4}	≤ 100 x 10^{-4}
Rated voltage pulse slope $(dV/dt)_R$ P = 10.0mm P = 15.0mm P = 22.5mm P = 27.5mm	800 V/µs 600 V/µs 500 V/µs 400 V/µs		
R between leads, for C ≤ 0.33µF at 100V 1min	> 15 000 MΩ		
RC between leads, for C > 0.33µF at 100V 1min	> 5 000 s		
R between leads and case ; 100V 1min	> 30 000 MΩ		
Withstanding(DC) Voltage (cut-off current 10mA)	3400V ; 1 min		
Withstanding(AC) Voltage between leads and case	2400V ; 1 min		

V_{Rac} = 300 V~ Y2

Cap. (µF)	b x h x l (mm)	Mass (g)	CATALOGUE NUMBER PCY2 130 ..... loose in box lt = 5.0 ± 1.0 mm C – tol. ± 20 %	 C – tol. ± 10 %	 lt = 25.0 ± 2.0 mm C – tol. ± 20 %	 C – tol. ± 10 %
Pitch = 10.0 ± 0.4 mm			dt = 0.6 +0.06/-0.05 mm			
0.001	4.0 x 10.0 x 12.5	0.8	D30102	D31102	D34102	D35102
0.0015			D30152	D31152	D34152	D35152
0.0022			D30222	D31222	D34222	D35222
0.0033			D30332	D31332	D34332	D35332
0.0047	5.0 x 11.0 x 12.5	0.9	D30472	D31472	D34472	D35472
0.0068			D30682	-	D34682	-
0.0068	6.0 x 12.0 x 12.5	1.0	-	D31682	-	D35682
0.01	6.0 x 12.0 x 12.5	1.0	D30103	D31103	D34103	D35103
Pitch = 15.0 ± 0.4 mm			dt = 0.8 +0.08/-0.05 mm			
0.0068	5.0 x 11.0 x 18.0	1.2	F30682	F31682	F34682	F35682
0.01			F30103	F31103	F34103	F35103
0.015	6.0 x 12.0 x 18.0	1.4	F30153	F31153	F34153	F35153
0.022	7.0 x 13.5 x 18.0	1.9	F30223	F31223	F34223	F35223
0.033	8.5 x 15.0 x 18.0	2.6	F30333	F31333	F34333	F35333
0.047	10.0 x 16.5 x 18.0	3.1	F30473	F31473	F34473	F35473

EMI Suppression film capacitors

PCY2 130

V_{Rac} = 300~ Y2

Cap. (µF)	b x h x l (mm)	Mass (g)	CATALOGUE NUMBER			
			PCY2 130			
			loose in box			
			lt = 5.0 ± 1.0 mm		lt = 25.0 ± 2.0 mm	
			C – tol. ± 20 %	C – tol. ± 10 %	C – tol. ± 20 %	C – tol. ± 10 %
Pitch = 22.5 ± 0.4 mm			dt = 0.8 +0.08/-0.05 mm			
0.047	7.0 x 16.5 x 26.0	3.2	J30473	J31473	J34473	J35473
0.068	8.5 x 18.0 x 26.0	4.4	J30683	J31683	J34683	J35683
0.1	10.0 x 19.5 x 26.0	5.5	J30104	J31104	J34104	J35104
0.15	12.0 x 22.0 x 26.0	8.0	J30154	J31154	J34154	J35154
Pitch = 27.5 ± 0.4 mm			dt = 0.8 +0.08/-0.05 mm			
0.22	13.0 x 23.0 x 31.0	10.4	L30224	–	L34224	–
0.22	15.0 x 25.0 x 31.0	12.8	-	L31224	-	L35224
0.33	18.0 x 28.0 x 31.0	17.2	L30334	L31334	L34334	L35334
0.47	21.0 x 31.0 x 31.0	20.4	L30474	L31474	L34474	L35474

Original pitch	New Code	Old Code	Example
10.0mm	PCY2 130D3xxxx	PCY2 130 3xxxx	PCY2 130 60474 => PCY2 130L30474
15.0mm	PCY2 130F3xxxx	PCY2 130 4xxxx	
22.5mm	PCY2 130J3xxxx	PCY2 130 5xxxx	
27.5mm	PCY2 130L3xxxx	PCY2 130 6xxxx	

EMI Suppression film capacitors

PCY2 130

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".

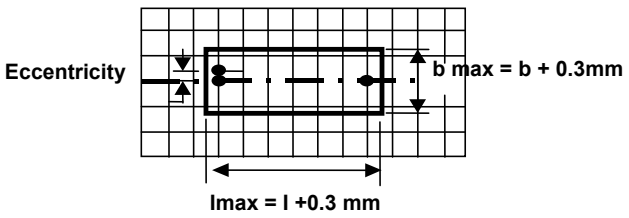
SPECIFIC METHOD OF MOUNTING TO WITHSTAND VIBRATION AND SHOCK

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+0.3mm

EMI Suppression film capacitors

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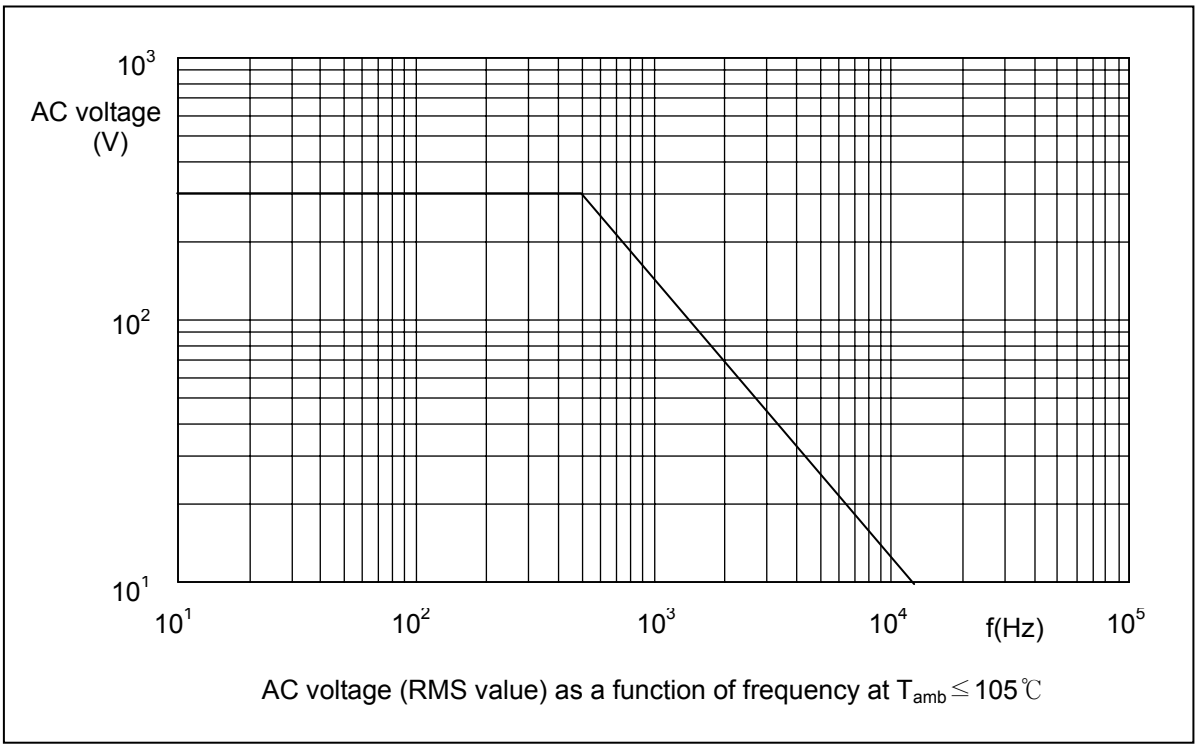
RATINGS AND CHARACTERISTICS

Unless otherwise specified all electrical values apply to an ambient temperature of 23±1℃, an atmospheric pressure of 86 to 106kPa and a relative humidity 50±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



AC voltage (RMS value) as a function of frequency at $T_{amb} \leq 105$℃

EMI Suppression film capacitors

PCY2 130

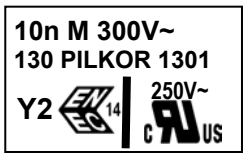
PRODUCT MARKING

Capacitors are marked with having following information;

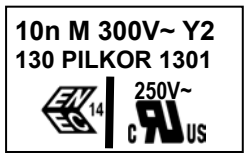
1.Manufacturer (PILKOR)
2.Manufacturer's type designation (130 or PCY2 130)
3.Rated capacitance in code according to IEC 60062
4.Rated (AC) voltage (300V~)
5.Sub class (Y2)
6.Tolerance on rated capacitance M = ±20 % K = ±10 %
7.Climatic category (55/105/21)
8.Code for dielectric material (MKP)
9.Year and week of manufacturing (e.g. 1301)
10.Safety approvals

Example of marking

Pitch P = 10 mm



Marking on the side or



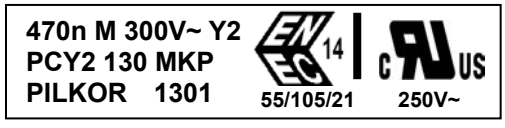
Marking on the side

Pitch P = 15 mm or 22.5 mm or 27.5mm

Marking on the top

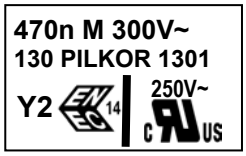
Marking on the side

Pitch P = 22.5 mm or 27.5mm



Marking on the top

Pitch P = 27.5 mm



Marking on the top