

Metallized Polypropylene (PP) RFI-Capacitors Class X2 in PCM 7.5 mm to 37.5 mm. Capacitances from 1000 pF to 10 μ F. Rated Voltage 305 VAC.

Special Features

- Reliable self-healing
- High degree of interference suppression due to good attenuation and low ESR
- AEC-Q200 qualified
- According to RoHS 2015/863/EU

Typical Applications

Class X2 RFI applications to meet EMC regulations

- Capacitors connected to the mains between phase and neutral or phase conductors
- General requirements, pulse peak voltage ≤ 2.5 kV

Construction

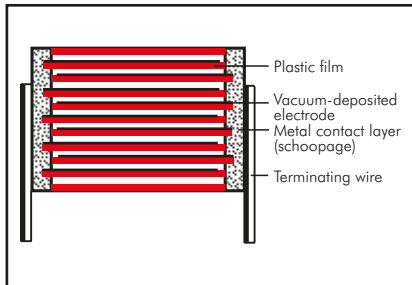
Dielectric:

Polypropylene (PP) film

Capacitor electrodes:

Vacuum-deposited

Internal construction:



Encapsulation:

Solvent-resistant, flame-retardant plastic case with epoxy resin seal, UL 94 V-0

Terminations:

Tinned wire.

Marking:

Colour: Red. Marking: Black.

Electrical Data

Capacitance range: 1000 pF to 10 μ F

Rated voltage: 305 VAC

Continuous DC voltage* (general guide): ≤ 560 V

Capacitance tolerances:

$\pm 20\%$, $\pm 10\%$, $\pm 5\%$

Operating temperature range:

-55°C to $+105^\circ\text{C}$

Climatic test category:

55/105/56 in accordance with IEC

Passive flammability class:

B for capacitors with $V > 1750$ mm³

C for capacitors with $V \leq 1750$ mm³

Test specifications:

In accordance with IEC 60384-14

Dissipation factors at $+20^\circ\text{C}$: $\tan \delta$

at f	$C \leq 0.1 \mu\text{F}$	$0.1 \mu\text{F} < C \leq 1.0 \mu\text{F}$	$C > 1.0 \mu\text{F}$
1 kHz	$\leq 18 \times 10^{-4}$	$\leq 20 \times 10^{-4}$	$\leq 20 \times 10^{-4}$
10 kHz	$\leq 20 \times 10^{-4}$	$\leq 60 \times 10^{-4}$	–
100 kHz	$\leq 50 \times 10^{-4}$	–	–

Insulation resistance at $+20^\circ\text{C}$:

$C \leq 0.33 \mu\text{F}$: $\geq 1.5 \times 10^4$ M Ω

$C > 0.33 \mu\text{F}$: ≥ 5000 sec (M $\Omega \times \mu\text{F}$)

Measuring voltage: 100 V/1 min.

Maximum pulse rise time:

100 V/ μsec for pulses equal to a voltage

amplitude with $\sqrt{2} \times 305$ VAC = 432 V

according to IEC 60384-14

Test voltage:

$C \leq 1.0 \mu\text{F}$: 2260 VDC, 2 sec.

$C > 1.0 \mu\text{F}$: 1800 VDC, 2 sec.

Reliability:

Operational life > 300000 hours

Failure rate < 2 fit ($0.5 \times U_r$ and 40°C)

Approvals:

Country	Authority	Specification	Symbol	Approval-No.
Germany	VDE	IEC 60384-14/4		40003472
USA/Canada	UL	UL 60384-14 CAN/CSA-E60384-14		E 134915
China	CQC	CQC11-471115-2016		CQC20001271097

Mechanical Tests

Pull test on pins: 10 N in direction of pins according to IEC 60068-2-21

Vibration: 6 hours at 10 ... 2000 Hz and 0.75 mm displacement amplitude or 10 g in accordance with IEC 60068-2-6

Low air density: 1 kPa = 10 mbar in accordance with IEC 60068-2-13

Bump test: 4000 bumps at 390 m/sec² in accordance with IEC 60068-2-29

* If safety-approved EMI suppression capacitors are operated with a DC voltage being above the specified AC voltage rating the given approvals are no longer valid (IEC 60384-14).

Furthermore the permissible pulse rise time du/dt ($F_{\text{max.}}$) will be subject to a reduction according to

$$F_{\text{max.}} = F_r \times \sqrt{2} \times \text{UAC} / \text{UDC}$$

if the DC operating voltage UDC is higher than $\sqrt{2} \times \text{UAC}$

Packing

Available taped and reeled up to and including case size 15 x 26 x 31.5 / PCM 27.5 mm.

Detailed taping information and graphs at the end of the catalogue.

For further details and graphs please refer to Technical Information.

Continuation

General Data

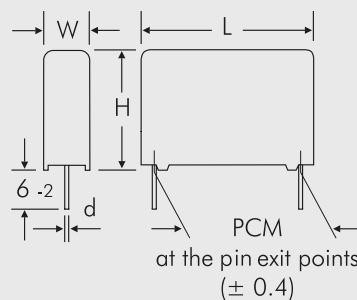
Capacitance	305 VAC*					Part number
	W	H	L	PCM**		
1000 pF	4	9	10	7.5	MKX2AW11002C00	
1200 "	4	9	10	7.5	MKX2AW11202C00	
1500 "	4	9	10	7.5	MKX2AW11502C00	
1800 "	4	9	10	7.5	MKX2AW11802C00	
2200 "	4	9	10	7.5	MKX2AW12202C00	
2700 "	4	9	10	7.5	MKX2AW12702C00	
3300 "	4	9	10	7.5	MKX2AW13302C00	
3900 "	4	9	10	7.5	MKX2AW13902C00	
4700 "	4	9	10	7.5	MKX2AW14702C00	
5600 "	4	9	10	7.5	MKX2AW15602C00	
6800 "	4	9	10	7.5	MKX2AW16802C00	
8200 "	4	9	10	7.5	MKX2AW18202C00	
0.01 µF	4	9	10	7.5	MKX2AW21002C00	
	5	11	13	10	MKX2AW21003F00	
0.012 "	4	9	10	7.5	MKX2AW21202C00	
	5	11	13	10	MKX2AW21203F00	
0.015 "	4	9	10	7.5	MKX2AW21502C00	
	5	11	13	10	MKX2AW21503F00	
0.018 "	4	9	10	7.5	MKX2AW21802C00	
	5	11	13	10	MKX2AW21803F00	
0.022 "	4	9	10	7.5	MKX2AW22202C00	
	5	11	13	10	MKX2AW22203F00	
0.027 "	5	10.5	10.3	7.5	MKX2AW22702E00	
	5	11	13	10	MKX2AW22703F00	
0.033 "	5	10.5	10.3	7.5	MKX2AW23302E00	
	5	11	13	10	MKX2AW23303F00	
0.039 "	5.7	12.5	10.3	7.5	MKX2AW23902F00	
	5	11	13	10	MKX2AW23903F00	
0.047 "	5.7	12.5	10.3	7.5	MKX2AW24702F00	
	6	12.5	13	10	MKX2AW24703H00	
	5	11	18	15	MKX2AW24704B00	
0.056 "	6	12.5	13	10	MKX2AW25603H00	
	5	11	18	15	MKX2AW25604B00	
0.068 "	6	12.5	13	10	MKX2AW26803H00	
	5	11	18	15	MKX2AW26804B00	
0.082 "	6	12.5	13	10	MKX2AW28203H00	
	5	11	18	15	MKX2AW28204B00	

* f = 50/60 Hz

** PCM = Printed circuit module = pin spacing

Dims. in mm.

d = 0.6 Ø if PCM < 15
d = 0.8 Ø if PCM ≥ 15



Part number completion:

Tolerance: 20 % = M

10 % = K

5 % = J

Packing: bulk = S

Pin length: 6-2 = SD

Taped version see page 157.

Rights reserved to amend design data without prior notification.

Continuation

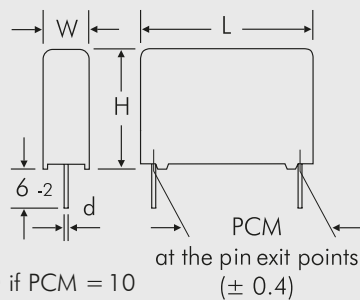
General Data

Capacitance	305 VAC*				PCM**	Part number
	W	H	L			
0.1 μ F	8	12	13		10	MKX2AW31003I00
	5	11	18		15	MKX2AW31004B00
	6	12.5	18		15	MKX2AW31004C00
0.12 "	6	12.5	18		15	MKX2AW31204C00
	6	12.5	18		15	MKX2AW31504C00
0.15 "	8	15	18		15	MKX2AW31504F00
	6	15	26.5		22.5	MKX2AW31505B00
	8	15	18		15	MKX2AW31804F00
0.18 "	6	15	26.5		22.5	MKX2AW31805B00
	9	14	18		15	MKX2AW32204H00
0.22 "	8	15	18		15	MKX2AW32204F00
	6	15	26.5		22.5	MKX2AW32205B00
	8	15	18		15	MKX2AW32704F00
0.27 "	7	16.5	26.5		22.5	MKX2AW32705D00
	11	14	18		15	MKX2AW33304M00
0.33 "	9	16	18		15	MKX2AW33304J00
	7	16.5	26.5		22.5	MKX2AW33305D00
	8.5	18.5	26.5		22.5	MKX2AW33905F00
0.39 "	8.5	18.5	26.5		22.5	MKX2AW34705F00
	10.5	19	26.5		22.5	MKX2AW34705G00
0.56 "	9	19	31.5		27.5	MKX2AW34706A00
	10.5	19	26.5		22.5	MKX2AW35605G00
	9	19	31.5		27.5	MKX2AW35606A00
0.68 "	10.5	19	26.5		22.5	MKX2AW36805G00
	11	21	26.5		22.5	MKX2AW36805I00
	9	19	31.5		27.5	MKX2AW36806A00
0.82 "	11	21	26.5		22.5	MKX2AW38205I00
	9	19	31.5		27.5	MKX2AW38206A00

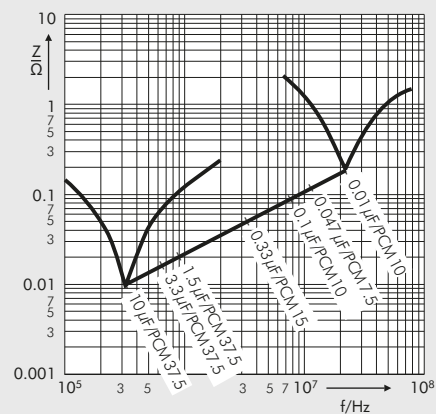
* f = 50/60 Hz

** PCM = Printed circuit module = pin spacing

Dims. in mm.



Part number completion:
 Tolerance: 20 % = M
 10 % = K
 5 % = J
 Packing: bulk = S
 Pin length: 6-2 = SD
 Taped version see page 157.



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Continuation

General Data

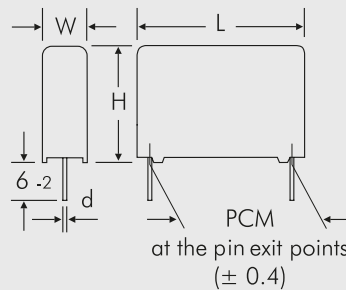
Capacitance	305 VAC*				Part number
	W	H	L	PCM**	
1.0 μ F	11	21	26.5	22.5	MKX2AW41005I00_____
	11	21	31.5	27.5	MKX2AW41006B00_____
	13	24	31.5	27.5	MKX2AW41006D00_____
1.2 "	11	21	31.5	27.5	MKX2AW41206B00_____
	13	24	31.5	27.5	MKX2AW41506D00_____
1.5 "	15	26	31.5	27.5	MKX2AW41506F00_____
	13	24	41.5	37.5	MKX2AW41507C00_____
	13	24	31.5	27.5	MKX2AW41806D00_____
1.8 "	13	24	41.5	37.5	MKX2AW41807C00_____
	15	26	31.5	27.5	MKX2AW42206F00_____
2.2 "	17	29	31.5	27.5	MKX2AW42206G00_____
	13	24	41.5	37.5	MKX2AW42207C00_____
	15	26	41.5	37.5	MKX2AW42207D00_____
2.7 "	17	29	31.5	27.5	MKX2AW42706G00_____
	15	26	41.5	37.5	MKX2AW42707D00_____
	17	29	41.5	37.5	MKX2AW42707E00_____
3.3 "	17	34.5	31.5	27.5	MKX2AW43306I00_____
	20	39.5	31.5	27.5	MKX2AW43306J00_____
	15	26	41.5	37.5	MKX2AW43307D00_____
	17	29	41.5	37.5	MKX2AW43307E00_____
3.9 "	17	34.5	31.5	27.5	MKX2AW43906I00_____
	17	29	41.5	37.5	MKX2AW43907E00_____
	19	32	41.5	37.5	MKX2AW43907F00_____
4.7 "	20	39.5	31.5	27.5	MKX2AW44706J00_____
	19	32	41.5	37.5	MKX2AW44707F00_____
	20	39.5	41.5	37.5	MKX2AW44707G00_____
5.6 "	19	32	41.5	37.5	MKX2AW45607F00_____
	20	39.5	41.5	37.5	MKX2AW45607G00_____
6.8 "	20	39.5	41.5	37.5	MKX2AW46807G00_____
	24	45.5	41.5	37.5	MKX2AW46807H00_____
8.2 "	24	45.5	41.5	37.5	MKX2AW48207H00_____
	31	46	41.5	37.5	MKX2AW48207I00_____
10 μ F	24	45.5	41.5	37.5	MKX2AW51007H00_____
	31	46	41.5	37.5	MKX2AW51007I00_____

* f = 50/60 Hz

** PCM = Printed circuit module = pin spacing

Dims. in mm.

d = 0.8 \varnothing if PCM \leq 27.5
d = 1.0 \varnothing if PCM = 37.5



Part number completion:

Tolerance: 20 % = M
10 % = K
5 % = J

Packing: bulk = S
Pin length: 6-2 = SD

Taped version see page 157.

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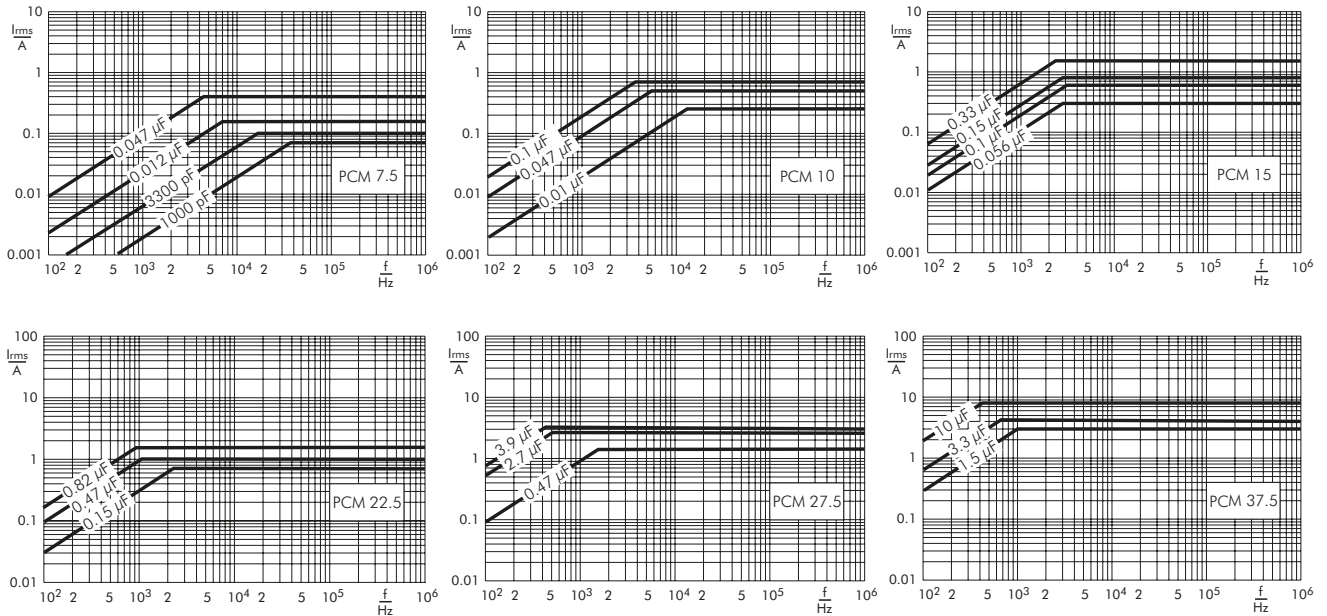
Continuation page 94

WIMA MKP-X2



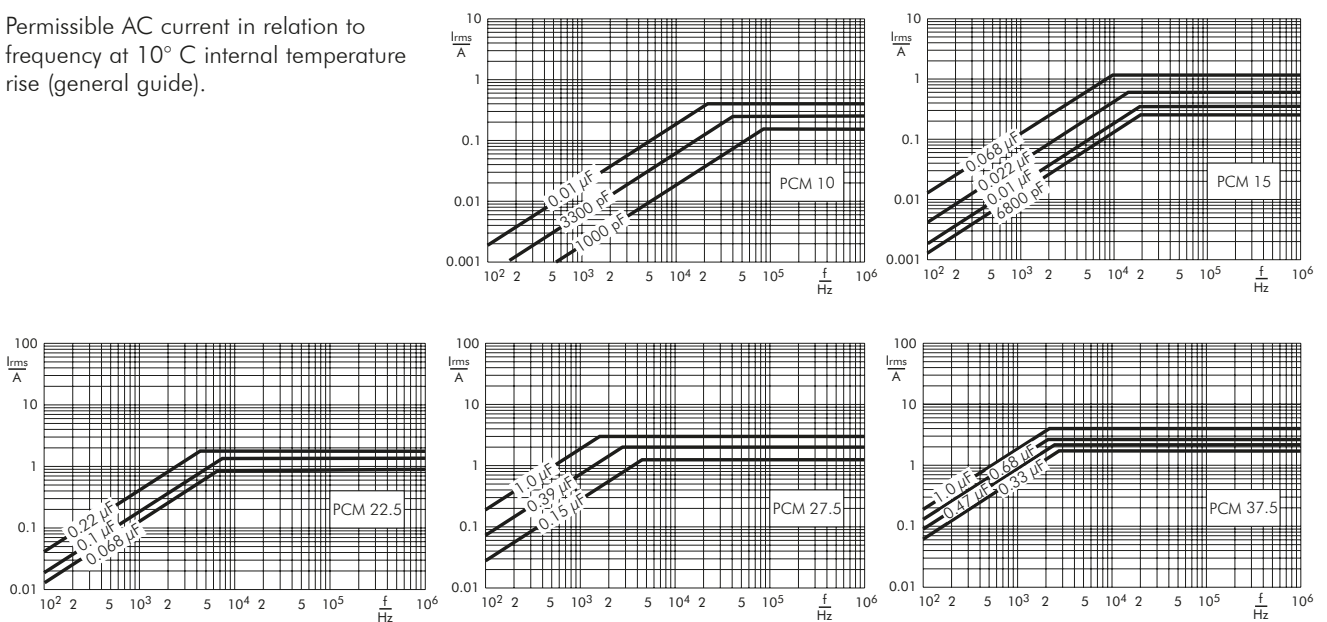
Continuation

Permissible AC current in relation to frequency at 10° C internal temperature rise (general guide).



WIMA MKP-Y2

Permissible AC current in relation to frequency at 10° C internal temperature rise (general guide).



Technical information and general data see page 95

Recommendation for Processing and Application of Through-Hole Capacitors

Soldering Process

Internal temperature of the capacitor must be kept as follows:

Polyester: preheating: $T_{max.} \leq 125^{\circ}C$
soldering: $T_{max.} \leq 135^{\circ}C$

Polypropylene: preheating: $T_{max.} \leq 100^{\circ}C$
soldering: $T_{max.} \leq 110^{\circ}C$

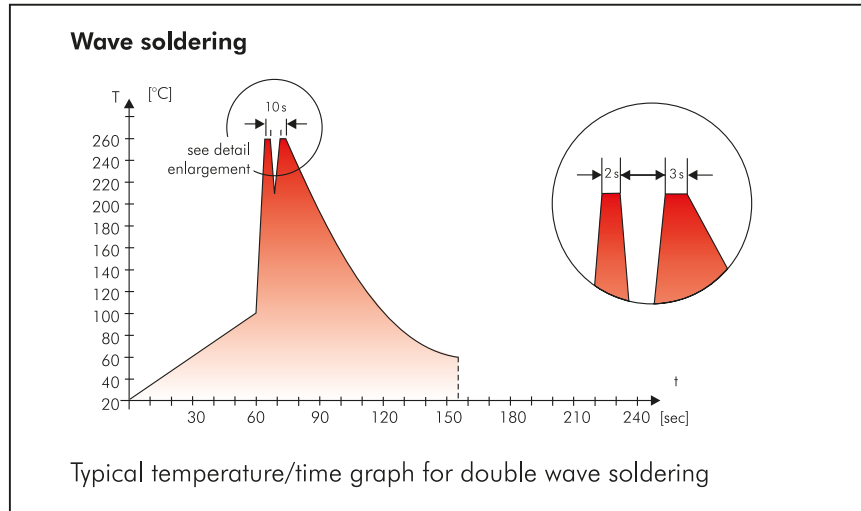
Single wave soldering

Soldering bath temperature: $T < 260^{\circ}C$
Dwell time: $t < 5 \text{ sec}$

Double wave soldering

Soldering bath temperature: $T < 260^{\circ}C$
Dwell time: $\sum t < 5 \text{ sec}$

Due to different soldering processes and heat requirements the graphs are to be regarded as a recommendation only.



WIMA Quality and Environmental Philosophy

ISO 9001:2015 Certification

ISO 9001:2015 is an international basic standard of quality assurance systems for all branches of industry. The approval according to ISO 9001:2015 of our factories certifies that organisation, equipment and monitoring of quality assurance in our factories correspond to internationally recognized standards.

WIMA WPCS

The WIMA Process Control System (WPCS) is a quality surveillance and optimization system developed by WIMA. WPCS is a major part of the quality-oriented WIMA production. Points of application during production process:

- incoming material inspection
- metallization
- film inspection
- schoopage
- pre-healing
- pin attachment
- cast resin preparation/encapsulation
- 100% final inspection
- Testing as per customer requirements

WIMA Environmental Policy

All WIMA capacitors, irrespective of whether through-hole devices or SMD, are made of environmentally friendly materials. Neither during manufacture nor in the product itself any toxic substances are used, e.g.

- Lead
- PCB
- CFC
- Hydrocarbon chloride
- Chromium 6+
- PBB/PBDE
- Arsenic
- Cadmium
- Mercury
- etc.

We merely use pure, recyclable materials for packing our components, such as:

- carton
- cardboard
- adhesive tape made of paper
- polystyrene

We almost completely refrain from using packing materials such as:

- adhesive tapes made of plastic
- metal clips

RoHS Compliance

According to the RoHS Directive 2015/863/EU as amended from time to time certain hazardous substances like e.g. lead, cadmium, mercury must not be used any longer in electronic equipment as of July 1st, 2006. For the sake of the environment WIMA has re-frained from using such substances since years already.



WIMA Kondensatoren sind bleifrei konform RoHS 2015/863/EU

WIMA capacitors are lead free in accordance with RoHS 2015/863/EU

Tape for lead-free WIMA capacitors

DIN EN ISO 14001:2004

WIMA's environmental management has been established in accordance with the guidelines of DIN EN ISO 14001:2004 to optimize the production processes with regard to energy and resources.

Typical Dimensions for Taping Configuration

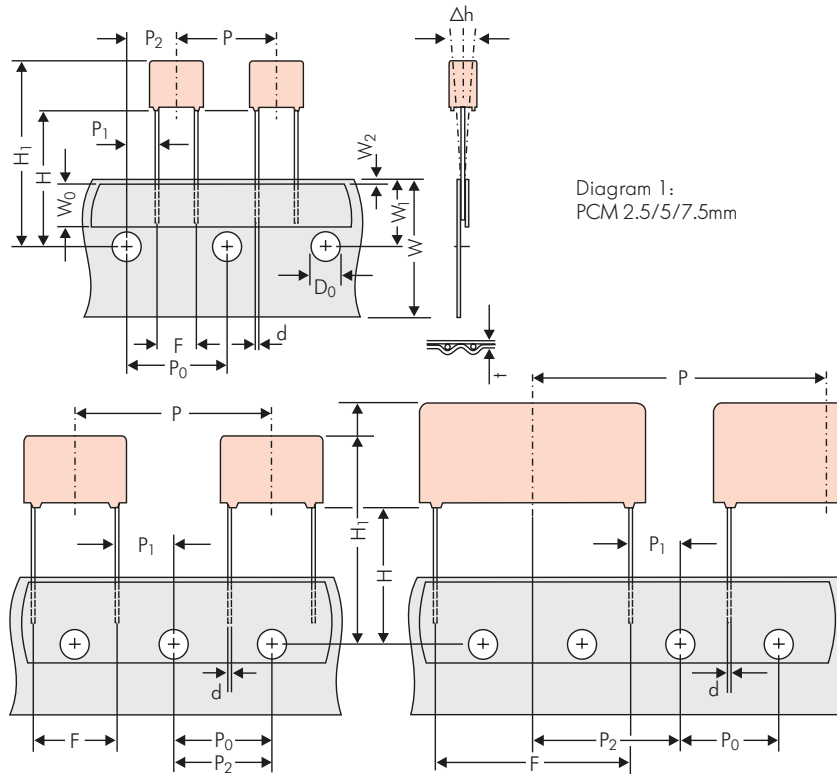


Diagram 1:
PCM 2.5/5/7.5mm

Diagram 2: PCM 10/15 mm

Diagram 3: PCM 22.5 and 27.5*mm

*PCM 27.5 tapping possible with two feed holes between components

Designation	Symbol	Dimensions for Radial Taping						
		PCM 2.5 tapping	PCM 5 tapping	PCM 7.5 tapping	PCM 10 tapping*	PCM 15 tapping*	PCM 22.5 tapping	PCM 27.5 tapping
Carrier tape width	W	18.0 ±0.5	18.0 ±0.5	18.0 ±0.5	18.0 ±0.5	18.0 ±0.5	18.0 ±0.5	18.0 ±0.5
Hold-down tape width	W ₀	6.0 for hot-sealing adhesive tape	6.0 for hot-sealing adhesive tape	12.0 for hot-sealing adhesive tape	12.0 for hot-sealing adhesive tape	12.0 for hot-sealing adhesive tape	12.0 for hot-sealing adhesive tape	12.0 for hot-sealing adhesive tape
Hole position	W ₁	9.0 ±0.5	9.0 ±0.5	9.0 ±0.5	9.0 ±0.5	9.0 ±0.5	9.0 ±0.5	9.0 ±0.5
Hold-down tape position	W ₂	0.5 to 3.0 max.	0.5 to 3.0 max.	0.5 to 3.0 max.	0.5 to 3.0 max.	0.5 to 3.0 max.	0.5 to 3.0 max.	0.5 to 3.0 max.
Feed hole diameter	D ₀	4.0 ±0.2	4.0 ±0.2	4.0 ±0.2	4.0 ±0.2	4.0 ±0.2	4.0 ±0.2	4.0 ±0.2
Pitch of component	P	12.7 ±1.0	12.7 ±1.0	12.7 ±1.0	25.4 ±1.0	25.4 ±1.0	38.1 ±1.5	*38.1 ±1.5 or 50.8 ±1.5
Feed hole pitch	P ₀	12.7 ±0.3 error max. 1.0 mm/20 pitch	12.7 ±0.3 error max. 1.0 mm/20 pitch	12.7 ±0.3 error max. 1.0 mm/20 pitch	12.7 ±0.3 error max. 1.0 mm/20 pitch	12.7 ±0.3 error max. 1.0 mm/20 pitch	12.7 ±0.3 error max. 1.0 mm/20 pitch	12.7 ±0.3 error max. 1.0 mm/20 pitch
Feed hole centre to pin	P ₁	5.1 ±0.5	3.85 ±0.7	2.6 ±0.7	7.7 ±0.7	5.2 ±0.7	7.8 ±0.7	5.3 ±0.7
Hole centre to component centre	P ₂	6.35 ±1.3	6.35 ±1.3	6.35 ±1.3	12.7 ±1.3	12.7 ±1.3	19.05 ±1.3	19.05 ±1.3
Feed hole centre to bottom edge of the component	H _▲	16.5 ±0.3 18.5 ±0.5	16.5 ±0.3 18.5 ±0.5	16.5 ±0.5 18.5 ±0.5	16.5 ±0.5 18.5 ±0.5	16.5 ±0.5 18.5 ±0.5	16.5 ±0.5 18.5 ±0.5	16.5 ±0.5 18.5 ±0.5
Feed hole centre to top edge of the component	H ₁	H+H _{component} < H ₁ 32.25 max.	H+H _{component} < H ₁ 32.25 max.	H+H _{component} < H ₁ 24.5 to 31.5	H+H _{component} < H ₁ 25.0 to 31.5	H+H _{component} < H ₁ 26.0 to 37.0	H+H _{component} < H ₁ 30.0 to 43.0	H+H _{component} < H ₁ 35.0 to 45.0
Pin spacing at upper edge of carrier tape	F	2.5 ±0.5	5.0 ^{+0.8} _{-0.2}	7.5 ±0.8	10.0 ±0.8	15 ±0.8	22.5 ±0.8	27.5 ±0.8
Pin diameter	d	0.4 ±0.05	0.5 ±0.05	*0.5 ±0.05 or 0.6 ^{+0.06} _{-0.05}	*0.5 ±0.05 or 0.6 ^{+0.06} _{-0.05}	0.8 ^{+0.08} _{-0.05}	0.8 ^{+0.08} _{-0.05}	0.8 ^{+0.08} _{-0.05}
Component alignment	Δh	± 2.0 max.	± 2.0 max.	± 3.0 max.	± 3.0 max.	± 3.0 max.	± 3.0 max.	± 3.0 max.
Total tape thickness	t	0.6 ±0.2	0.6 ±0.2	0.6 ±0.2	0.6 ±0.2	0.6 ±0.2	0.6 ±0.2	0.6 ±0.2
Package (see also page 158)	▲	ROLL/AMMO			AMMO			
		REEL Ø 360 max. Ø 30 ±1	B 52 ±2 58 ±2	depending on comp. dimensions	REEL Ø 360 max. Ø 30 ±1	B 52 ±2 58 ±2 66 ±2	or REEL Ø 500 max. Ø 25 ±1	B 54 ±2 60 ±2 68 ±2
Unit		see details page 159.						

▲ When ordering please specify dimension H and required packaging type.

Dims in mm.

• Diameter of pins see General Data.

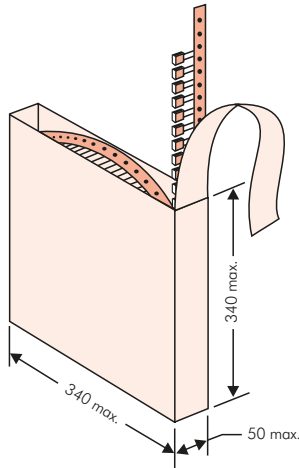
Please clarify customer-specific deviations with the manufacturer.

* PCM 10 and PCM 15 can be crimped to PCM 7.5.

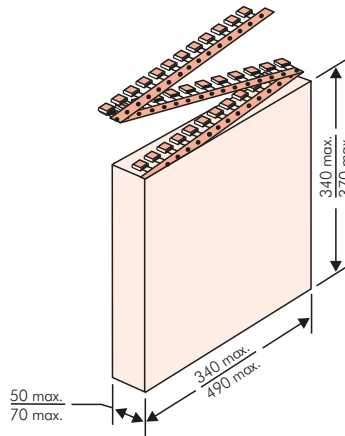
Position of components according to PCM 7.5 (sketch 1). P₀ = 12.7 or 15.0 is possible

Types of Tape Packaging of Capacitors for Automatic Radial Insertion

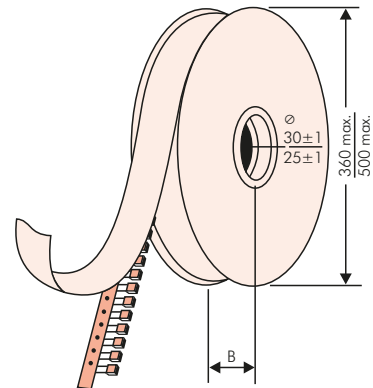
■ ROLL Packaging



■ AMMO Packaging



■ REEL Packaging



BAR CODE (Labelling)

Labelling of package units in plain text and with alphanumeric Bar Code

- WIMA supplier number
- Date code
- Customer's P/O number
- P/O line
- Customer's part number
- WIMA part number
- Quantity
- WIMA confirmation number
- Country of origin
- Customer name
- Handling unit number
- Week of delivery.

In addition part description of

- article
- capacitance value
- rated voltage
- dimensions
- technical note
- capacitance tolerance
- packing
- connecting information

WIMA Best Capacitors Made in Germany
Werk Aurich

Supplier-ID: LIEF.NR. Date Code: 20210419

Purchase Order No. (P/O): Bestellung xyz P/O line: 100

Customer Part No.: KUNDENTEILENUMMER

WIMA Part No.: MKP1F041006800KSSD Quantity: 459

WIMA Confirmation No.: 0001105072000100

Customer No.: 0000100002 RoHS 2011/65/EU

Gross Weight [g]: 4557 COO: DE

WIMA – MKP 10 WIMA Part No.: MKP1F041006800KSSD

MKP 10 1.0 µF 250 VDC 11x21x31.5 RM27.5

Standard 10% Lose – Standard Drähte 6-2

Vorlage Debitor Inland

0001105072000100

1002021443 QTY: 459 Week 19/2021

BARCODE PDF417
BARCODE 2D Datamatrix



Packing Quantities for Capacitors with Radial Pins in PCM 2.5 mm to 27.5 mm

PCM	Size				bulk	pcs. per packing unit												
						ROLL		REEL				AMMO						
	W	H	L	Codes		S	N	O	Ø 360		Ø 500		340 x 340		490 x 370			
								H16.5	H18.5	H16.5	H18.5	H16.5	H18.5	H16.5	H18.5	H16.5	H18.5	
2.5 mm	2.5	7	4.6	0B	5000			2200			2500					2800		
	3	7.5	4.6	0C	5000			2000			2300					2300		
	3.8	8.5	4.6	0D	5000			1500			1800					1800		
	4.6	9	4.6	0E	5000			1200			1500					1500		
	5.5	10	4.6	0F	5000			900			1200					1200		
5 mm	2.5	6.5	7.2	1A	5000			2200			2500					2800		
	3	7.5	7.2	1B	5000			2000			2300					2300		
	3.5	8.5	7.2	1C	5000			1600			2000					2000		
	4.5	6	7.2	1D	6000			1300			1500					1500		
	4.5	9.5	7.2	1E	4000			1300			1500					1500		
	5	10	7.2	1F	3500			1100			1400					1400		
	5.5	7	7.2	1G	4000			1000			1200					1200		
	5.5	11.5	7.2	1H	2500			1000			1200					1200		
	6.5	8	7.2	1I	2500			800			1000					1000		
	7.2	8.5	7.2	1J	2500			700			1000					1000		
	7.2	13	7.2	1K	2000			700			950					1000		
	8.5	10	7.2	1L	2000			600			800					800		
	8.5	14	7.2	1M	1500			600			800					800		
11	16	7.2	1N	1000			500			600					640			
7.5 mm	2.5	7	10	2A	5000						2500			4400	2500			
	3	8.5	10	2B	5000						2200			4300	2300		4150	
	4	9	10	2C	4000						1700			3200	1700		3000	
	4.5	9.5	10.3	2D	3500						1500			2900	1400		2700	
	5	10.5	10.3	2E	3000						1300			2500	1300			
	5.7	12.5	10.3	2F	2000						1000			2200	1100			
	7.2	12.5	10.3	2G	1500						900			1800	1000			
10 mm	3	9	13	3A	3000						1100			2200			1900	
	4	9	13	3C	3000						900			1600			1450	
	4	9.5	13	3D	3000						900			1600			1400	
	5	11	13	3F	3000						700			1300			1100	
	6	12	13	3G	2400							550			1100			1000
	6	12.5	13	3H	2400							550			1100			1000
	8	12	13	3I	2000							400			800			740
15 mm	5	11	18	4B	2400						600			1200			1150	
	6	12.5	18	4C	2000						500			1000			1000	
	7	14	18	4D	1600						450			900			850	
	8	15	18	4F	1200						400			800			740	
	9	14	18	4H	1200						350			700			650	
	9	16	18	4J	900						350			700			650	
	11	14	18	4M	1000						300			600			540	
22.5 mm	5	14	26.5	5A	1200									800			770	
	6	15	26.5	5B	1000									700			640	
	7	16.5	26.5	5D	760									600			550	
	8.5	18.5	26.5	5F	500									480			450	
	10.5	19	26.5	5G	594*									400			360	
	10.5	20.5	26.5	5H	594*									400			360	
11	21	26.5	5I	561*									380			350		
27.5 mm	9	19	31.5	6A	567*									460/340*				
	11	21	31.5	6B	459*									380/280*				
	13	24	31.5	6D	378*									300				
	15	26	31.5	6F	324*									270				
	17	29	31.5	6G	198*													
	17	34.5	31.5	6I	198*													
	20	39.5	31.5	6J	162*													

* for 2-inch transport pitches.

* TPS (Tray-Packing-System). Plate versions may have different packing units. Samples and pre-production needs on request.

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Packing Quantities for Capacitors with Radial Pins in PCM 37.5 mm to 52.5 mm

PCM	Size				bulk	pcs. per packing unit											
						ROLL		REEL				AMMO					
	W	H	L	Codes		S	N	O	Ø 360		Ø 500		340 x 340		490 x 370		
								H16.5	H18.5	H16.5	H18.5	H16.5	H18.5	H16.5	H18.5	H16.5	H18.5
								F	I	H	J	A	C	B	D		
37.5 mm**	9	19	41.5	7A	441*	-	-	-	-	-	-	-	-	-	-	-	-
	11	22	41.5	7B	357*	-	-	-	-	-	-	-	-	-	-	-	-
	13	24	41.5	7C	294*	-	-	-	-	-	-	-	-	-	-	-	-
	15	26	41.5	7D	252*	-	-	-	-	-	-	-	-	-	-	-	-
	17	29	41.5	7E	154*	-	-	-	-	-	-	-	-	-	-	-	-
	19	32	41.5	7F	140*	-	-	-	-	-	-	-	-	-	-	-	-
	20	39.5	41.5	7G	126*	-	-	-	-	-	-	-	-	-	-	-	-
	24	45.5	41.5	7H	112*	-	-	-	-	-	-	-	-	-	-	-	-
	28	38	41.5	7L	84*	-	-	-	-	-	-	-	-	-	-	-	-
	31	46	41.5	7I	84*	-	-	-	-	-	-	-	-	-	-	-	-
	35	50	41.5	7J	35*	-	-	-	-	-	-	-	-	-	-	-	-
40	55	41.5	7K	28*	-	-	-	-	-	-	-	-	-	-	-	-	
48.5 mm**	19	31	56	8D	120*	-	-	-	-	-	-	-	-	-	-	-	
	23	34	56	8E	80*	-	-	-	-	-	-	-	-	-	-	-	
	27	37.5	56	8H	84*	-	-	-	-	-	-	-	-	-	-	-	
	33	48	56	8J	25*	-	-	-	-	-	-	-	-	-	-	-	
	37	54	56	8L	25*	-	-	-	-	-	-	-	-	-	-	-	
52.5 mm	25	45	57	9D	70*	-	-	-	-	-	-	-	-	-	-	-	
	30	45	57	9E	60*	-	-	-	-	-	-	-	-	-	-	-	
	35	50	57	9F	25*	-	-	-	-	-	-	-	-	-	-	-	
	45	55	57	9H	20*	-	-	-	-	-	-	-	-	-	-	-	
	45	65	57	9J	20*	-	-	-	-	-	-	-	-	-	-	-	

* TPS (Tray-Packing-System). Plate versions may have different packing units.

**For Snubber capacitors in 2-pin version the PCM is changing to 38.5 respective 49.5 mm. Samples and pre-production needs on request.

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Updated data on www.wima.com



A WIMA part number consists of 18 digits and is composed as follows:

- Field 1 - 4: Type description
- Field 5 - 6: Rated voltage
- Field 7 - 10: Capacitance
- Field 11 - 12: Size and PCM
- Field 13 - 14: Version code (e.g. Snubber versions)
- Field 15: Capacitance tolerance
- Field 16: Packing
- Field 17 - 18: Pin length (untaped)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
M	K	S	2	C	0	2	1	0	0	1	A	0	0	M	S	S	D
MKS 2				63 VDC		0.01 µF			2.5x6.5x7.2			-		20%	bulk	6 -2	

<p>Type description:</p> <p>SMD-PET = SMDT SMD-PEN = SMDN SMD-PPS = SMDI FKP 02 = FKPO MKS 02 = MKSO FKS 2 = FKS2 FKP 2 = FKP2 FKS 3 = FKS3 FKP 3 = FKP 3 MKS 2 = MKS2 MKP 2 = MKP2 MKS 4 = MKS4 MKP 4 = MKP4 MKP 10 = MKP1 FKP 4 = FKP4 FKP 1 = FKP1 MKP-X2 = MKX2 MKP-X1 R = MKX1 MKP-Y2 = MKY2 MKP 4F = MKPF Snubber MKP = SNMP Snubber FKP = SNFP GTO MKP = GTOM DC-LINK MKP 4 = DCP4 DC-LINK MKP 6 = DCP6 DC-LINK HC = DCHC</p>	<p>Rated voltage:</p> <p>50 VDC = B0 63 VDC = C0 100 VDC = D0 250 VDC = F0 400 VDC = G0 450 VDC = H0 520 VDC = H2 600 VDC = I0 630 VDC = J0 700 VDC = K0 800 VDC = L0 850 VDC = M0 900 VDC = N0 1000 VDC = O1 1100 VDC = P0 1200 VDC = Q0 1250 VDC = R0 1500 VDC = S0 1600 VDC = T0 1700 VDC = TA 2000 VDC = U0 2500 VDC = V0 3000 VDC = W0 4000 VDC = X0 6000 VDC = Y0 230 VAC = 3Y 275 VAC = 1W 300 VAC = 2W 305 VAC = AW 350 VAC = BW 440 VAC = 4W ...</p>	<p>Capacitance:</p> <p>22 pF = 0022 47 pF = 0047 100 pF = 0100 150 pF = 0150 220 pF = 0220 330 pF = 0330 470 pF = 0470 680 pF = 0680 1000 pF = 1100 1500 pF = 1150 2200 pF = 1220 3300 pF = 1330 4700 pF = 1470 6800 pF = 1680 0.01 µF = 2100 0.022 µF = 2220 0.047 µF = 2470 0.1 µF = 3100 0.22 µF = 3220 0.47 µF = 3470 1 µF = 4100 2.2 µF = 4220 4.7 µF = 4470 10 µF = 5100 22 µF = 5220 47 µF = 5470 100 µF = 6100 220 µF = 6220 1000 µF = 7100 1500 µF = 7150 ...</p>	<p>Size:</p> <p>4.8x3.3x3 Size 1812 = KA 4.8x3.3x4 Size 1812 = KB 5.7x5.1x3.5 Size 2220 = QA 5.7x5.1x4.5 Size 2220 = QB 7.2x6.1x3 Size 2824 = TA 7.2x6.1x5 Size 2824 = TB 10.2x7.6x5 Size 4030 = VA 12.7x10.2x6 Size 5040 = YA 15.3x13.7x7 Size 6054 = YA 2.5x7x4.6 PCM2.5 = 0B 3x7.5x4.6 PCM2.5 = 0C 2.5x6.5x7.2 PCM5 = 1A 3x7.5x7.2 PCM5 = 1B 2.5x7x10 PCM7.5 = 2A 3x8.5x10 PCM7.5 = 2B 3x9x13 PCM10 = 3A 4x9x13 PCM10 = 3C 5x11x18 PCM15 = 4B 6x12.5x18 PCM15 = 4C 5x14x26.5 PCM22.5 = 5A 6x15x26.5 PCM22.5 = 5B 9x19x31.5 PCM27.5 = 6A 11x21x31.5 PCM27.5 = 6B 9x19x41.5 PCM37.5 = 7A 11x22x41.5 PCM37.5 = 7B 19x31x56 PCM 48.5 = 8D 25x45x57 PCM 52.5 = 9D ...</p>	<p>Tolerance:</p> <p>±20% = M ±10% = K ±5% = J ±2.5% = H ±1% = E ...</p> <p>Packing:</p> <p>AMMO H16.5 340x340 = A AMMO H16.5 490x370 = B AMMO H18.5 340x340 = C AMMO H18.5 490x370 = D REEL H16.5 360 = F REEL H16.5 500 = H REEL H18.5 360 = I REEL H18.5 500 = J ROLL H16.5 = N ROLL H18.5 = O BLISTER W12 180 = P BLISTER W12 330 = Q BLISTER W16 330 = R BLISTER W24 330 = T Bulk/TPS Standard = S ...</p>
			<p>Version code:</p> <p>Standard = 00 Version A1 = 1A Version A1.1.1 = 1B Version A2 = 2A ...</p>	<p>Pin length (untaped)</p> <p>3.5 ±0.5 = C9 6 -2 = SD 16 ±1 = P1 ...</p> <p>Pin length (taped)</p> <p>none = 00</p>

The data on this page is not complete and serves only to explain the part number system. Part number information is listed on the pages of the respective WIMA range.