

Metallized Polypropylene (PP) RFI-Capacitors Class X2 PCM 7.5 mm to 27.5 mm

Special Features

- **Reliable self-healing**
- **High degree of interference suppression due to good attenuation and low ESR**
- **According to RoHS 2011/65/EC**

Typical Applications

Class X2 RFI applications to meet EMC regulations

- **Capacitors connected to the mains between phase and neutral or phase conductors**
- **Installation category II in accordance with IEC 60664, pulse peak voltage ≤ 2.5 kV**

Construction

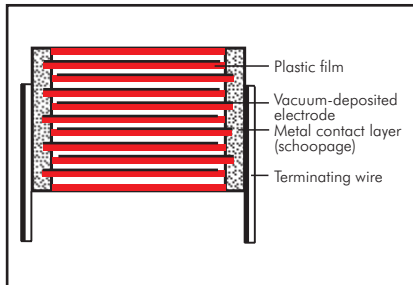
Dielectric:

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 2.2 μ F

Rated voltage: 275 VAC

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

Capacitance tolerances: $\pm 20\%$, $\pm 10\%$

Operating temperature range:

-55°C to $+105^\circ\text{C}$

Climatic test category:

55/105/56/B in accordance with IEC

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

$C \leq 0.33 \mu\text{F}$: $\geq 15 \times 10^3 \text{ M}\Omega$

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

Measuring voltage: 100 V/1 min.

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	$\leq 10 \times 10^{-4}$	$\leq 20 \times 10^{-4}$	$\leq 30 \times 10^{-4}$
10 kHz	$\leq 20 \times 10^{-4}$	$\leq 60 \times 10^{-4}$	-
100 kHz	$\leq 90 \times 10^{-4}$	-	-

Test specifications:

In accordance with IEC 60384-14

Maximum pulse rise time:

100 V/ μ sec for pulses equal to a voltage amplitude with $\sqrt{2} \times 275 \text{ VAC} = 390 \text{ V}$ 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 $> 300\,000$ hours

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

Approvals:

Country	Authority	Specification	Symbol	Approval-No.
Germany	VDE	IEC 60384-14/3		40003472
USA/Canada	UL	UL 1414 (250 VAC) C 22.2 No. 1 (250 VAC)		E 134915
USA/Canada	UL	UL 1283 (305 VAC) C 22.2 No. 8 (305 VAC)		E 100438

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

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.

* 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 $\sqrt{2} \times \text{UAC}$

Continuation

General Data

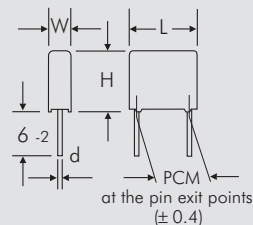
Capacitance	275 VAC*					305 VAC*				
	W	H	L	PCM**	Part number	W	H	L	PCM**	Part number
1000 pF	4	9	10	7.5	MKX21W11002C00_____					
1500 "	4	9	10	7.5	MKX21W11502C00_____					
2200 "	4	9	10	7.5	MKX21W12202C00_____					
3300 "	4	9	10	7.5	MKX21W13302C00_____					
4700 "	4	9	10	7.5	MKX21W14702C00_____					
6800 "	4	9	10	7.5	MKX21W16802C00_____					
0.01 µF	4	9	10	7.5	MKX21W21002C00_____					
	5	11	13	10	MKX21W21003F00_____					
0.015 "	4	9	10	7.5	MKX21W21502C00_____	5	11	13	10	MKX2AW21503F00_____
	5	11	13	10	MKX21W21503F00_____					
0.022 "	4	9	10	7.5	MKX21W22202C00_____	5	11	13	10	MKX2AW22203F00_____
	5	11	13	10	MKX21W22203F00_____					
0.033 "	5	10.5	10.3	7.5	MKX21W23302E00_____	5	10.5	10.3	7.5	MKX2AW23302E00_____
	5	11	13	10	MKX21W23303F00_____	5	11	13	10	MKX2AW23303F00_____
0.047 "	5.7	12.5	10.3	7.5	MKX21W24702F00_____	5.7	12.5	10.3	7.5	MKX2AW24702F00_____
	6	12.5	13	10	MKX21W24703H00_____	6	12.5	13	10	MKX2AW24703H00_____
0.068 "	6	12.5	13	10	MKX21W26803H00_____	6	12.5	13	10	MKX2AW26803H00_____
0.1 µF	8	12	13	10	MKX21W31003I00_____	8	12	13	10	MKX2AW31003I00_____
	5	11	18	15	MKX21W31004B00_____	5	11	18	15	MKX2AW31004B00_____
	6	12.5	18	15	MKX21W31004C00_____	6	12.5	18	15	MKX2AW31004C00_____
0.15 "	6	12.5	18	15	MKX21W31504C00_____	6	12.5	18	15	MKX2AW31504C00_____
	7	14	18	15	MKX21W31504D00_____	7	14	18	15	MKX2AW31504D00_____
0.22 "	9	14	18	15	MKX21W32204H00_____	8	15	18	15	MKX2AW32204F00_____
	8	15	18	15	MKX21W32204F00_____					
0.33 "	11	14	18	15	MKX21W33304M00_____	9	16	18	15	MKX2AW33304J00_____
	9	16	18	15	MKX21W33304J00_____					
0.47 "	8.5	18.5	26.5	22.5	MKX21W34705F00_____	8.5	18.5	26.5	22.5	MKX2AW34705F00_____
	10.5	19	26.5	22.5	MKX21W34705G00_____	10.5	19	26.5	22.5	MKX2AW34705G00_____
0.68 "	10.5	19	26.5	22.5	MKX21W36805G00_____	10.5	19	26.5	22.5	MKX2AW36805G00_____
	11	21	26.5	22.5	MKX21W36805I00_____	11	21	26.5	22.5	MKX2AW36805I00_____
1.0 µF	11	21	26.5	22.5	MKX21W41005I00_____	11	21	26.5	22.5	MKX2AW41005I00_____
	13	24	31.5	27.5	MKX21W41006D00_____	13	24	31.5	27.5	MKX2AW41006D00_____
1.5 "	15	26	31.5	27.5	MKX21W41506F00_____	15	26	31.5	27.5	MKX2AW41506F00_____
2.2 "	17	29	31.5	27.5	MKX21W42206G00_____					

* f = 50/60 Hz

** PCM = Printed circuit module = pin spacing

■ Certified for 250 VAC in accordance with UL/CSA.

Dims. in mm.



d = 0.6 ϕ if PCM < 15
d = 0.8 ϕ if PCM \geq 15

Part number completion:

Tolerance: 20 % = M

10 % = K

Packing: bulk = S

Pin length: 6-2 = SD

Taped version see page 148.

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Recommendation for Processing and Application of Through-Hole Capacitors

Soldering Process

A preheating of through-hole WIMA capacitors is allowed for temperatures $T_{\max} < 100^{\circ}\text{C}$. In practice a preheating duration of $t < 5$ min. has been proven to be best.

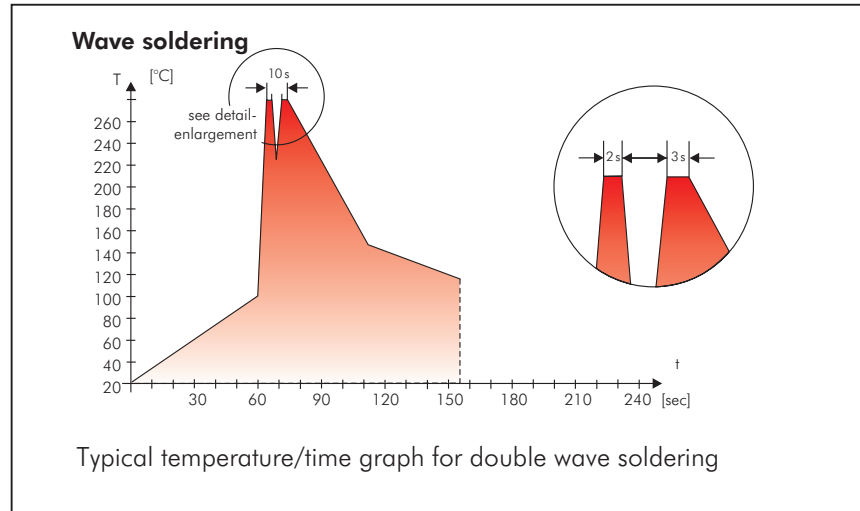
Single wave soldering

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

Double wave soldering

Soldering bath temperature: $T < 260^{\circ}\text{C}$
Immersion time: $2 \times t < 3$ 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 9001:2008 Certification

ISO 9001:2008 is an international basic standard of quality assurance systems for all branches of industry. The approval according to ISO 9001:2008 of our factories by the VDE inspectorate 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 of WPCS during production process:

- incoming material inspection
- metallization
- film inspection
- schoopage
- pre-healing
- pin attachment
- cast resin preparation/encapsulation
- 100% final inspection
- AQL check

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:

- foamed polystyrene (Styropor®)
- adhesive tapes made of plastic
- metal clips

RoHS Compliance

According to the RoHS Directive 2011/65/EC 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 refrained from using such substances since years already.



WIMA Kondensatoren sind bleifrei
konform RoHS 2011/65/EC
WIMA capacitors are lead free
in accordance with RoHS 2011/65/EC

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

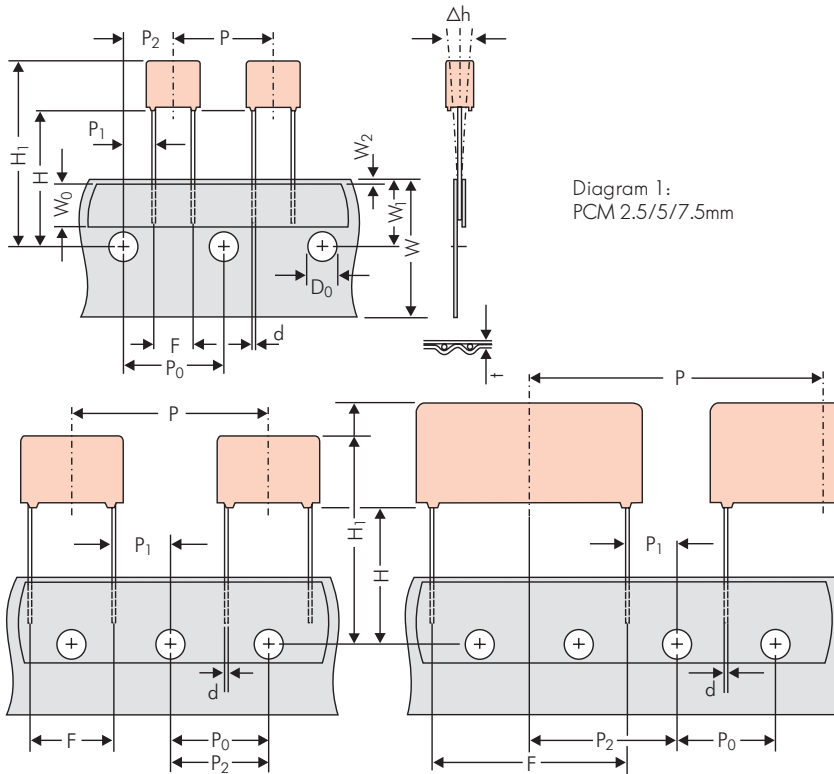


Diagram 2: PCM 10/15 mm

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 cumulative pitch error max. 1.0 mm/20 pitch	12.7 ±0.3 cumulative pitch error max. 1.0 mm/20 pitch	12.7 ±0.3 cumulative pitch error max. 1.0 mm/20 pitch	12.7 ±0.3 cumulative pitch error max. 1.0 mm/20 pitch	12.7 ±0.3 cumulative pitch error max. 1.0 mm/20 pitch	12.7 ±0.3 cumulative pitch error max. 1.0 mm/20 pitch	12.7 ±0.3 cumulative pitch 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	0.7 ±0.2	0.7 ±0.2	0.7 ±0.2	0.7 ±0.2	0.7 ±0.2	0.7 ±0.2	0.7 ±0.2				
Package (see also page 149)	ROLL/AMMO			AMMO								
	REEL	φ 360 max. φ 30 ±1	B 52 ±2 58 ±2	depending on comp. dimensions		REEL	φ 360 max. φ 30 ±1	B 52 ±2 58 ±2 or 66 ±2	REEL	φ 500 max. φ 25 ±1	B 60 ±2 68 ±2	depending on PCM and component dimensions
Unit	see details page 150.											

Dims in mm.

* Diameter of pins see General Data.

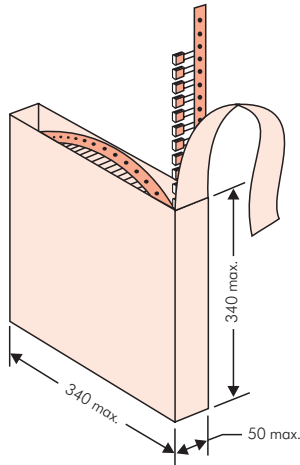
* PCM 10 and PCM 15 can be crimped to PCM 7.5.

Position of components according to PCM 7.5 (sketch 11). P₀ = 12.7 or 15.0 is possible

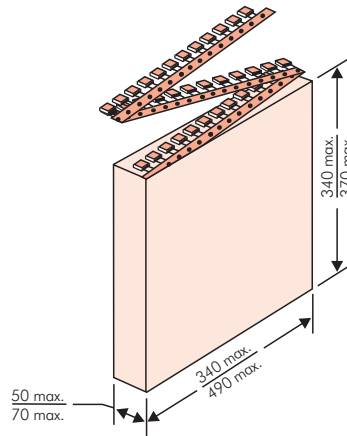
Please clarify customer-specific deviations with the manufacturer.

Types of Tape Packaging of Capacitors for Automatic Radial Insertion

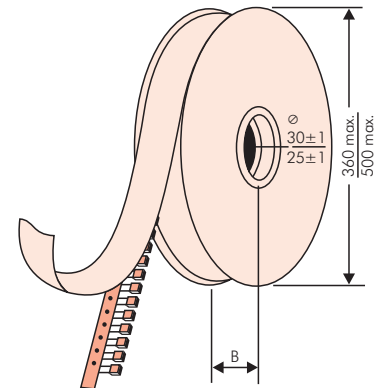
■ ROLL Packaging



■ AMMO Packaging



■ REEL Packaging



BAR CODE (Labelling)

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

Scanner decoding of

- WIMA supplier number
- Customer's P/O number
- Customer's part number
- WIMA confirmation number
- WIMA part number
- Lot number
- Date code
- Quantity

In addition part description of

- article
- capacitance value
- rated voltage
- dimensions
- capacitance tolerance
- packing

as well as gross weight and customer's name are indicated in plain text.

WIMA Best Capacitors Made in Germany		Werk Unna	
Supplier-ID: 123456789	RoHS 2011/65/EC	Date Code: 08.10.10	
Purchase Order No. (P/O): Bestellung xyz		Quantity: 5.000	
Customer Part No.: KUNDETEILENUMMER		Customer No.: 0000100002	
		Gross Weight [g]: 1870	
WIMA Confirmation No.: 0001004053000100	WIMA Part No.: MKS2C034701C00K88D		
Handling Unit: MKS 2	QTY: 5.000	COO: DE	
	MKS 2 0.47 µF 63 VDC 3.5x8.5x7.2 RMS		
1000067326	Standard 10% Loss - Standard	Drühte 6-2	Week 03/2011
	Vorlage Debitor Inland		

BARCODE „Code 39“



Packing Quantities for Capacitors with Radial Pins in PCM 2.5 mm to 22.5 mm

PCM	Size				bulk	pcs. per packing unit								
						ROLL		REEL				AMMO		
	W	H	L	Codes		S	H16.5	H18.5	ø 360	ø 500	340 × 340	490 × 370		
					N	O	F	I	H	J	A	C	B	D
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			400				
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		3100	
	4.5	9.5	10.3	2D	3500			1500	2900		1400		2800	
	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	8.5	13.5	FA	3000			900	1600				1450	
	4	9	13	3C	3000			900	1600				1450	
	4	9.5	13	3D	3000			900	1600				1400	
	5	10	13.5	FB	2000			700	1300				1200	
	5	11	13	3F	3000			700	1300				1200	
	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	
	5	13	19	FC	1000			600	1200				1200	
	6	12.5	18	4C	2000			500	1000				1000	
	6	14	19	FD	1000			500	1000				1000	
	7	14	18	4D	1600			450	900				850	
	7	15	19	FE	1000			450	900				850	
	8	15	18	4F	1200			400	800				740	
	8	17	19	FF	500			400	800				740	
	9	14	18	4H	1200			350	700				650	
	9	16	18	4J	900			350	700				650	
	10	18	19	FG	500			300	650				590	
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	20	28	FH	500				500				480	
	8.5	18.5	26.5	5F	500				480				450	
	10	22	28	FI	540*				420				380	
	10.5	19	26.5	5G	680*				400				360	
	10.5	20.5	26.5	5H	680*				400				360	
	11	21	26.5	5I	680*				380				350	
	12	24	28	FJ	450*				350				310	

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

■ Moulded versions.

Rights reserved to amend design data without prior notification.



Packing Quantities for Capacitors with Radial Pins in PCM 27.5 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 × 340		490 × 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		
27.5 mm	9	19	31.5	6A	640*	–	–	–	–	460/340*	–	–	–	420		
	11	21	31.5	6B	544*	–	–	–	–	380/280*	–	–	–	350		
	13	24	31.5	6D	448*	–	–	–	–	300	–	–	–	290		
	13	25	33	6K	336*	–	–	–	–	–	–	–	–	–		
	15	26	31.5	6F	384*	–	–	–	–	270	–	–	–	250		
	15	26	33	6L	288*	–	–	–	–	–	–	–	–	–		
	17	29	31.5	6G	176*	–	–	–	–	–	–	–	–	–		
	17	34.5	31.5	6I	176*	–	–	–	–	–	–	–	–	–		
	19	30	31.5	6L	50*	–	–	–	–	–	–	–	–	–		
	20	32	33	6M	216*	–	–	–	–	–	–	–	–	–		
20	39.5	31.5	6J	144*	–	–	–	–	–	–	–	–	–			
37.5 mm	9	19	41.5	7A	480*	–	–	–	–	–	–	–	–	–		
	11	22	41.5	7B	408*	–	–	–	–	–	–	–	–	–		
	13	24	41.5	7C	252*	–	–	–	–	–	–	–	–	–		
	15	26	41.5	7D	144*	–	–	–	–	–	–	–	–	–		
	17	29	41.5	7E	132*	–	–	–	–	–	–	–	–	–		
	19	32	41.5	7F	108*	–	–	–	–	–	–	–	–	–		
	20	39.5	41.5	7G	108*	–	–	–	–	–	–	–	–	–		
	24	45.5	41.5	7H	84*	–	–	–	–	–	–	–	–	–		
	31	46	41.5	7I	72*	–	–	–	–	–	–	–	–	–		
	35	50	41.5	7J	35*	–	–	–	–	–	–	–	–	–		
40	55	41.5	7K	28*	–	–	–	–	–	–	–	–	–			
48.5 mm	19	31	56	8D	50*	–	–	–	–	–	–	–	–	–		
	23	34	56	8E	72*	–	–	–	–	–	–	–	–	–		
	27	37.5	56	8H	60*	–	–	–	–	–	–	–	–	–		
	33	48	56	8J	48*	–	–	–	–	–	–	–	–	–		
	37	54	56	8L	25*	–	–	–	–	–	–	–	–	–		
52.5 mm	35	50	57	9F	25*	–	–	–	–	–	–	–	–	–		
	45	55	57	9H	20*	–	–	–	–	–	–	–	–	–		
	45	65	57	9J	20*	–	–	–	–	–	–	–	–	–		

* for 2-inch transport pitches.

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

■ Moulded versions.

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WIMA Part Number System

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: Lead 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		

Type description:	Rated voltage:	Capacitance:	Size:	Tolerance:	Packing:	Lead length (untaped)
SMD-PET = SMDT	2.5 VDC = A1	22 pF = 0022	4.8x3.3x3 Size 1812 = KA	20% = M	AMMO H16.5 340x340 = A	3.5 ±0.5 = C9
SMD-PPS = SMDI	4 VDC = A2	47 pF = 0047	4.8x3.3x4 Size 1812 = KB	10% = K	AMMO H16.5 490x370 = B	6-2 = SD
FKP 02 = FKP0	14 VDC = A3	100 pF = 0100	5.7x5.1x3.5 Size 2220 = QA	5% = J	AMMO H18.5 340x340 = C	16 ±1 = P1
MKS 02 = MKS0	28 VDC = A4	150 pF = 0150	5.7x5.1x4.5 Size 2220 = QB	2.5% = H	AMMO H18.5 490x370 = D	...
FKS 2 = FKS2	40 VDC = A5	220 pF = 0220	7.2x6.1x3 Size 2824 = TA	1% = E	REEL H16.5 360 = F	
FKP 2 = FKP2	5 VDC = A6	330 pF = 0330	7.2x6.1x5 Size 2824 = TB	...	REEL H16.5 500 = H	
MKS 2 = MKS2	50 VDC = B0	470 pF = 0470	10.2x7.6x5 Size 4030 = VA		REEL H18.5 360 = I	
MKP 2 = MKP2	63 VDC = C0	680 pF = 0680	12.7x10.2x6 Size 5040 = XA		REEL H18.5 500 = J	
FKS 3 = FKS3	100 VDC = D0	1000 pF = 1100	15.3x13.7x7 Size 6054 = YA		ROLL H16.5 = N	
FKP 3 = FKP3	160 VDC = E0	1500 pF = 1150	2.5x7x4.6 PCM 2.5 = 0B		ROLL H18.5 = O	
MKS 4 = MKS4	250 VDC = F0	2200 pF = 1220	3x7.5x4.6 PCM 2.5 = 0C		BLISTER W12 180 = P	
MKP 4 = MKP4	400 VDC = G0	3300 pF = 1330	2.5x6.5x7.2 PCM 5 = 1A		BLISTER W12 330 = Q	
MKP 10 = MKP1	450 VDC = H0	4700 pF = 1470	3x7.5x7.2 PCM 5 = 1B		BLISTER W16 330 = R	
FKP 4 = FKP4	600 VDC = I0	6800 pF = 1680	2.5x7x10 PCM 7.5 = 2A		BLISTER W24 330 = T	
FKP 1 = FKP1	630 VDC = J0	0.01 µF = 2100	3x8.5x10 PCM 7.5 = 2B		Bulk/TPS Standard = S	
MKP-X2 = MKX2	700 VDC = K0	0.022 µF = 2220	3x9x13 PCM 10 = 3A		...	
MKP-X2 R = MKXR	800 VDC = L0	0.047 µF = 2470	4x9x13 PCM 10 = 3C			
MKP-Y2 = MKY2	850 VDC = M0	0.1 µF = 3100	5x11x18 PCM 15 = 4B			
MP 3-X2 = MPX2	900 VDC = N0	0.22 µF = 3220	6x12.5x18 PCM 15 = 4C			
MP 3-X1 = MPX1	1000 VDC = O1	0.47 µF = 3470	5x14x26.5 PCM 22.5 = 5A			
MP 3-Y2 = MPY2	1100 VDC = P0	1 µF = 4100	6x15x26.5 PCM 22.5 = 5B			
MP 3R-Y2 = MPRY	1200 VDC = Q0	2.2 µF = 4220	9x19x31.5 PCM 27.5 = 6A			
Snubber MKP = SNMP	1250 VDC = R0	4.7 µF = 4470	11x21x31.5 PCM 27.5 = 6B			
Snubber FKP = SNFP	1500 VDC = S0	10 µF = 5100	9x19x41.5 PCM 37.5 = 7A			
GTO MKP = GTOM	1600 VDC = T0	22 µF = 5220	11x22x41.5 PCM 37.5 = 7B			
DC-LINK MKP 3 = DCP3	2000 VDC = U0	47 µF = 5470	94x49x182 DCH_ = H0			
DC-LINK MKP 4 = DCP4	2500 VDC = V0	100 µF = 6100	94x77x182 DCH_ = H1			
DC-LINK MKP 4S = DCPS	3000 VDC = W0	220 µF = 6220	...			
DC-LINK MKP 5 = DCP5	4000 VDC = X0	1 F = A010				
DC-LINK MKP 6 = DCP6	6000 VDC = Y0	2.5 F = A025				
DC-LINK HC = DCH_	250 VAC = 0W	50 F = A500				
DC-LINK HY = DCHY	275 VAC = 1W	100 F = B100				
SuperCap C = SCSC	300 VAC = 2W	110 F = B110				
SuperCap MC = MC__	400 VAC = 3W	600 F = B600				
SuperCap C60 = SCSC	440 VAC = 4W	1200 F = C120				
SuperCap R = SCSR	500 VAC = 5W	...				
SuperCap MR = MRPP	...					

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.

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