

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/EU

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

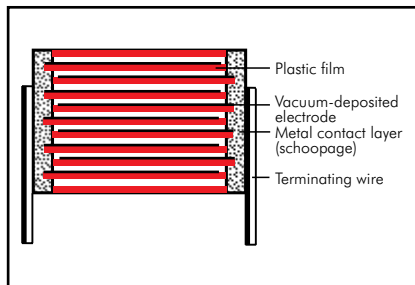
Dielectric:

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/ μsec 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

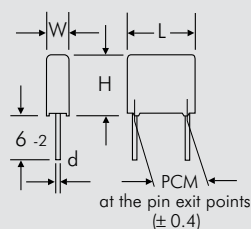
Capacitance	275 VAC*					305 VAC*				
	W	H	L	PCM**	Part number	W	H	L	PCM**	Part number
1000 pF	4	9	10	7.5	MKX21W11002C00_____					
1500 "	4	9	10	7.5	MKX21W11502C00_____					
2200 "	4	9	10	7.5	MKX21W12202C00_____					
3300 "	4	9	10	7.5	MKX21W13302C00_____					
4700 "	4	9	10	7.5	MKX21W14702C00_____					
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 ø if PCM < 15
d = 0.8 ø if PCM ≥ 15

Part number completion:

Tolerance: 20 % = M

10 % = K

Packing: bulk = S

Pin length: 6-2 = SD

Taped version see page 144.

Rights reserved to amend design data without prior notification.

Recommendation for Processing and Application of Through-Hole Capacitors

Soldering Process

Internal temperature of the capacitor must be kept as follows:

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

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

Single wave soldering

Soldering bath temperature: $T < 260^{\circ}\text{C}$

Dwell time: $t < 5\text{ sec}$

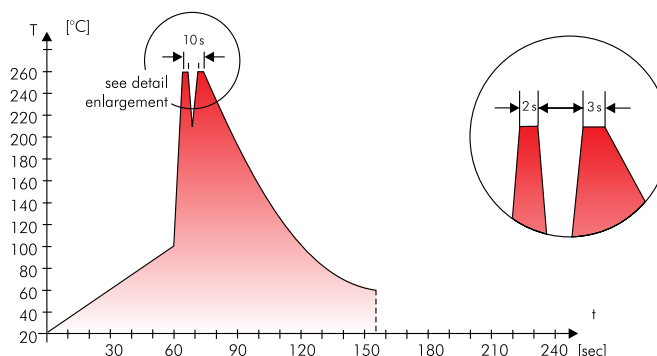
Double wave soldering

Soldering bath temperature: $T < 260^{\circ}\text{C}$

Dwell time: $\Sigma t < 5\text{ sec}$

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

Wave soldering



Typical temperature/time graph for double wave soldering

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/EU 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/EU

WIMA capacitors are lead free
in accordance with RoHS 2011/65/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

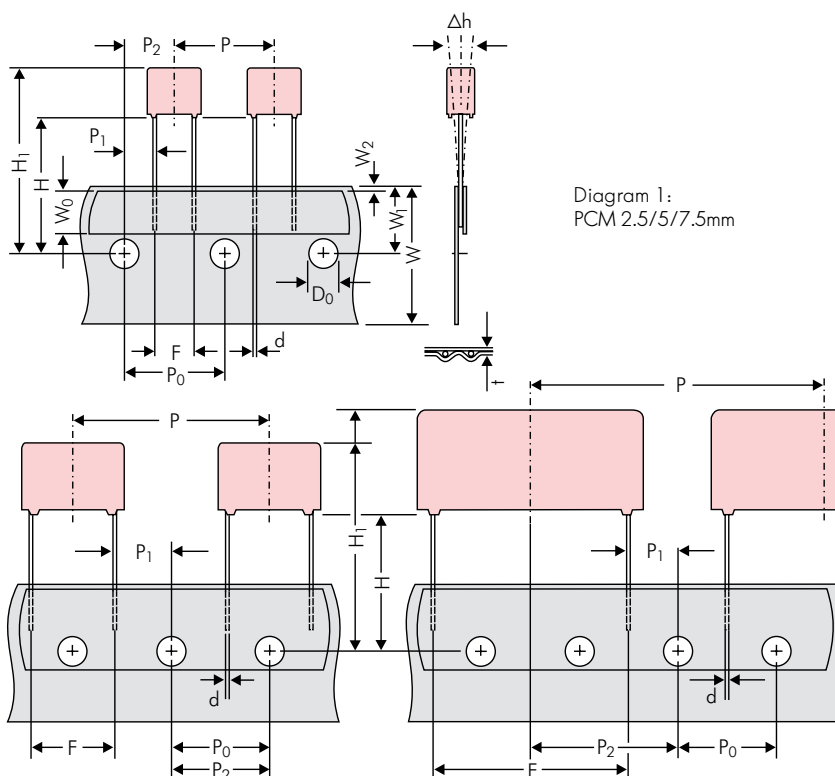


Diagram 2: PCM 10/15 mm

Diagram 3: PCM 22.5 and 27.5*mm

*PCM 27.5 taping possible with two feed holes between components

Designation	Symbol	Dimensions for Radial Taping						
		PCM 2.5 taping	PCM 5 taping	PCM 7.5 taping	PCM 10 taping*	PCM 15 taping*	PCM 22.5 taping	PCM 27.5 taping
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 145)		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	52 ±2 B 58 ±2 or 66 ±2	REEL ø 500 max. ø 25 ±1	54 ±2 B 60 ±2 68 ±2 } depending on PCM and component dimensions
Unit		see details page 146.						

Dims in mm.

* Diameter of pins see General Data.

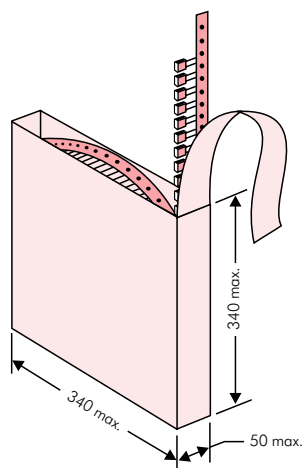
* PCM 10 and PCM 15 can be crimped to PCM 7.5.

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

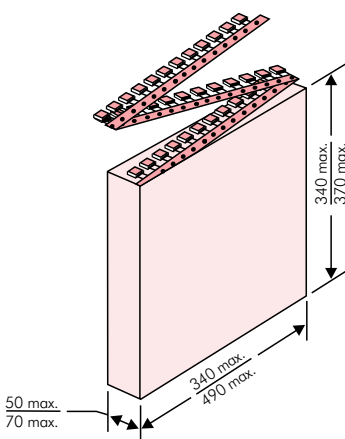
Please clarify customer-specific deviations with the manufacturer.

Types of Tape Packaging of Capacitors for Automatic Radial Insertion

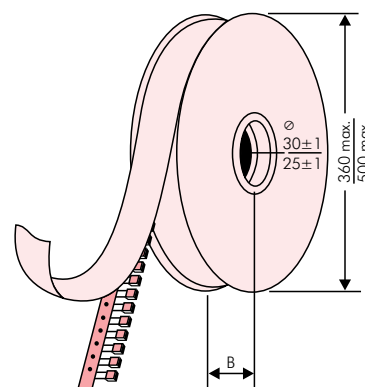
■ ROLL Packaging



■ 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	
WIMA Confirmation No.: 0001004063000100		Gross Weight [g]: 1870	
WIMA Part No.: MKS2C034701C00K89D			
Handling Unit:	MKS 2	QTY: 5.000	COO: DE
MKS 2 0.47 µF 63 VDC 3.5x8.5x7.2 RM5			
Standard 10% Loss - Standard Drähte 6-2			
1000067326 Vorlage Debitur Inland		Week 03/2011	

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			
	H16.5	H18.5	ø 360	ø 500		340 × 340		490 × 370							
	W	H	L	Codes	S	N	O	F	I	H	J	A	C	B	D
2.5 mm	2.5	7	4.6	0B	5000			2500		–		2800		–	
	3	7.5	4.6	0C	5000	2200		2300		–		2300		–	
	3.8	8.5	4.6	0D	5000	2000		1800		–		1800		–	
	4.6	9	4.6	0E	5000	1500		1500		–		1500		–	
	5.5	10	4.6	0F	5000	1200		1200		–		1200		–	
5 mm	2.5	6.5	7.2	1A	5000	900		2500		–		2800		–	
	3	7.5	7.2	1B	5000	2200		2300		–		2300		–	
	3.5	8.5	7.2	1C	5000	2000		2000		–		2000		–	
	4.5	6	7.2	1D	6000	1600		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	1300		1200		–		1200		–	
	6.5	8	7.2	1I	2500	1000		1000		–		1000		–	
	7.2	8.5	7.2	1J	2500	800		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	800		800		–		800		–	
	11	16	7.2	1N	1000	600		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	ROLL		pcs. per packing unit				AMMO			
								REEL							
	W	H	L	Codes		H16.5	H18.5	ø 360	ø 500	340 × 340	490 × 370	H16.5	H18.5	H16.5	H18.5
					S	N	O	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	FK	336*	–	–	–	–	–	–	–	–	–	–
	15	26	31.5	6F	384*	–	–	–	–	270	–	–	–	250	–
	15	26	33	FL	288*	–	–	–	–	–	–	–	–	–	–
	17	29	31.5	6G	176*	–	–	–	–	–	–	–	–	–	–
	17	34.5	31.5	6I	176*	–	–	–	–	–	–	–	–	–	–
	20	32	33	FM	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: 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				2.5×6.5×7.2		-		20%	bulk	6 -2			
Type description:				Rated voltage:				Capacitance:				Size:				Tolerance:			
SMD-PET = SMDT				2.7 VDC = AI				22 pF = 0022				4.8×3.3×3 Size 1812 = KA				20% = M			
SMD-PPS = SMDI				12 VDC = AN				47 pF = 0047				4.8×3.3×4 Size 1812 = KB				10% = K			
FKP 02 = FKP0				16 VDC = AO				100 pF = 0100				5.7×5.1×3.5 Size 2220 = QA				5% = J			
MKS 02 = MKS0				32 VDC = AH				150 pF = 0150				5.7×5.1×4.5 Size 2220 = QB				2.5% = H			
FKS 2 = FKS2				48 VDC = AQ				220 pF = 0220				7.2×6.1×3 Size 2824 = TA				1% = E			
FKP 2 = FKP2				50 VDC = BO				330 pF = 0330				7.2×6.1×5 Size 2824 = TB				...			
MKS 2 = MKS2				56 VDC = B1				470 pF = 0470				10.2×7.6×5 Size 4030 = VA							
MKP 2 = MKP2				63 VDC = CO				680 pF = 0680				12.7×10.2×6 Size 5040 = XA							
FKS 3 = FKS3				64 VDC = CA				1000 pF = 1100				15.3×13.7×7 Size 6054 = YA							
FKP 3 = FKP3				100 VDC = DO				1500 pF = 1150				2.5×7×4.6 PCM 2.5 = 0B							
MKS 4 = MKS4				125 VDC = DA				2200 pF = 1220				3×7.5×4.6 PCM 2.5 = 0C							
MKP 4 = MKP4				250 VDC = FO				3300 pF = 1330				2.5×6.5×7.2 PCM 5 = 1A							
MKP 10 = MKP1				400 VDC = GO				4700 pF = 1470				3×7.5×7.2 PCM 5 = 1B							
FKP 4 = FKP4				450 VDC = HO				6800 pF = 1680				2.5×7×10 PCM 7.5 = 2A							
FKP 1 = FKP1				600 VDC = IO				0.01 μF = 2100				3×8.5×10 PCM 7.5 = 2B							
MKP-X2 = MKX2				630 VDC = JO				0.022 μF = 2220				3×9×13 PCM 10 = 3A							
MKP-X2 R = MKXR				700 VDC = KO				0.047 μF = 2470				4×9×13 PCM 10 = 3C							
MKP-Y2 = MKY2				800 VDC = LO				0.1 μF = 3100				5×11×18 PCM 15 = 4B							
MP 3-X2 = MPX2				850 VDC = MO				0.22 μF = 3220				6×12.5×18 PCM 15 = 4C							
MP 3-X1 = MPX1				900 VDC = NO				0.47 μF = 3470				5×14×26.5 PCM 22.5 = 5A							
MP 3-Y2 = MPY2				1000 VDC = O1				1 μF = 4100				6×15×26.5 PCM 22.5 = 5B							
MP 3R-Y2 = MPRY				1100 VDC = PO				2.2 μF = 4220				9×19×31.5 PCM 27.5 = 6A							
Snubber MKP = SNMP				1200 VDC = Q0				4.7 μF = 4470				11×21×31.5 PCM 27.5 = 6B							
Snubber FKP = SNFP				1250 VDC = RO				10 μF = 5100				9×19×41.5 PCM 37.5 = 7A							
GTO MKP = GTOM				1500 VDC = SO				22 μF = 5220				11×22×41.5 PCM 37.5 = 7B							
DC-LINK MKP 3 = DCP3				1600 VDC = TO				47 μF = 5470				94×49×182 DCH_ = H0							
DC-LINK MKP 4 = DCP4				2000 VDC = U0				100 μF = 6100				94×77×182 DCH_ = H1							
DC-LINK MKP 4S = DCPS				2500 VDC = VO				220 μF = 6220				...							
DC-LINK MKP 5 = DCP5				3000 VDC = W0				1 F = A010											
DC-LINK MKP 6 = DCP6				4000 VDC = X0				2.5 F = A025											
DC-LINK HC = DCH_				6000 VDC = Y0				50 F = A500											
DC-LINK HY = DCHY				250 VAC = 0W				100 F = B100				Version code:				Pin length (untaped)			
SuperCap S = SCSS				275 VAC = 1W				125 F = B125				Standard = 00				3.5 ±0.5 = C9			
SuperCap H = SCSH				300 VAC = 2W				500 F = B500				Version A1 = 1A				6 -2 = SD			
SuperCap M = SCM_				400 VAC = 3W				1200 F = C120				Version A1.1.1 = 1B				16 ±1 = P1			
				440 VAC = 4W				...				Version A2 = 2A				...			
				500 VAC = 5W								...							

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.