



# WIMA MP 3-Y2 / 3R-Y2

**Metallized Paper (MP) RFI-Capacitors Class Y2  
 in PCM 10 mm to 27.5 mm. Capacitances from 1000 pF to 0.1 μF.  
 Rated Voltages 250 VAC and 300 VAC.**

## Special Features

- Particularly high reliability against active and passive flammability
- Excellent self-healing as well as high voltage strength
- Twice the safety by internal series connection (300 VAC)
- High degree of interference suppression due to good attenuation and low ESR
- For temperatures up to +110° C
- According to RoHS 2011/65/EU

## Typical Applications

**Class Y2 RFI applications to meet EMC regulations**

- Capacitors connected to the mains between phase or neutral and earthed casing
- By-passing of the basic or supplementary insulation, pulse peak voltage ≤ 5 kV

## Construction

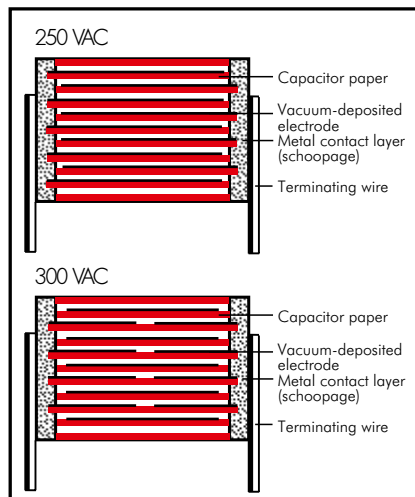
### Dielectric:

Paper, epoxy resin impregnated

### Capacitor electrodes:

Vacuum-deposited

### Internal construction:



### Encapsulation:

Self-extinguishing epoxy resin, UL 94 V-0, metal foil

### Terminations:

Tinned wire.

### Marking:

Marking: Black on Silver.

## Electrical Data

### Capacitance range:

1000 pF to 0.1 μF (E12-values on request)

### Rated voltages:

250 VAC, 300 VAC

### Continuous DC voltage\* (general guide):

250 VAC: ≤ 1000 V

300 VAC: ≤ 1250 V

### Capacitance tolerances: ±20%

### Operating temperature range:

-40° C to +110° C

### Climatic test category:

250 VAC: 40/110/56/C

300 VAC: 40/110/56/B

in accordance with IEC

### Insulation resistance at +20° C:

≥ 12 x 10<sup>3</sup> MΩ

Measuring voltage: 100 V/1 min.

### Dissipation factors:

tan δ ≤ 13 x 10<sup>-3</sup> at 1 kHz and +20° C

### Test specifications:

in accordance with IEC 60384-14

### Approvals:

Authority	Specification	Symbol	Approval-No.
UL/Demko	EN 60384-14		ENEC-02833 (250 VAC) ENEC-02399 (300 VAC)
UL	UL 60384-14 CAN/CSA-E60384-14		E 100438

### Maximum pulse rise time 250 VAC:

Capacitance pF/μF	Pulse rise time V/μsec max. operation
1000 ... 4700	2500
6800 ... 0.022	1750

### Maximum pulse rise time 300 VAC:

Capacitance pF/μF	Pulse rise time V/μsec max. operation
1000 ... 4700	2500
6800 ... 0.015	1850
0.022 ... 0.1	600

for pulses equal to a voltage amplitude with  $\sqrt{2} \times 250 \text{ VAC} = 355 \text{ V}$   
 with  $\sqrt{2} \times 300 \text{ VAC} = 425 \text{ V}$   
 according to IEC 60384-14

**Test voltage:** 2400 VDC, 2sec.

### Reliability:

Operational life > 300 000 hours

Failure rate < 1 fit (0.5 x U<sub>r</sub> and 40° C)

## 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:** 1kPa = 10 mbar in accordance with IEC 60068-2-13

**Bump test:** 4000 bumps at 390 m/sec<sup>2</sup> 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<sub>max.</sub>) 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.

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	250 VAC*					300 VAC*				
	W	H	L	PCM**	Part number	W	H	L	PCM**	Part number
1000 pF	4	8.5	13.5	10	MPY20W1100FA00_____	5	13	19	15	MPLY2W1100FC00_____
1500 „	4	8.5	13.5	10	MPY20W1150FA00_____	5	13	19	15	MPLY2W1150FC00_____
2200 „	4	8.5	13.5	10	MPY20W1220FA00_____	5	13	19	15	MPLY2W1220FC00_____
3300 „	4	8.5	13.5	10	MPY20W1330FA00_____	5	13	19	15	MPLY2W1330FC00_____
4700 „	5	10	13.5	10	MPY20W1470FB00_____	6	14	19	15	MPLY2W1470FD00_____
6800 „	5	13	19	15	MPY20W1680FC00_____	7	15	19	15	MPLY2W1680FE00_____
0.01 µF	5	13	19	15	MPY20W2100FC00_____	8	17	19	15	MPLY2W2100FF00_____
0.015 „	6	14	19	15	MPY20W2150FD00_____	10	18	19	15	MPLY2W2150FG00_____
0.022 „	7	15	19	15	MPY20W2220FE00_____	8	20	28	22.5	MPLY2W2220FH00_____
0.033 „						8	20	28	22.5	MPLY2W2330FH00_____
0.047 „						10	22	28	22.5	MPLY2W2470FI00_____
0.068 „						12	24	28	22.5	MPLY2W2680FJ00_____
0.1 µF						13	25	33	27.5	MPLY2W3100FK00_____

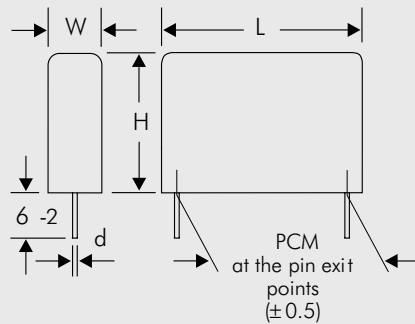
\* f = 50/60 Hz

\*\* PCM = Printed circuit module = pin spacing

Upon request with long pins 35-2 mm max.

Dims. in mm.

d = 0.6 ø if PCM 10  
d = 0.8 ø if PCM ≥ 15



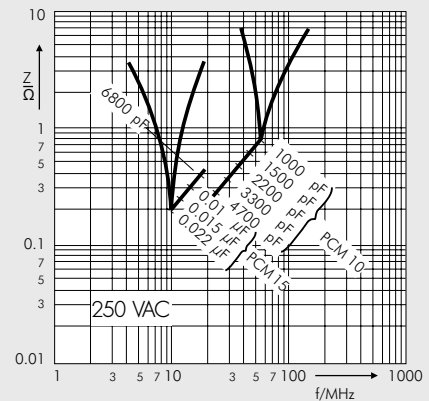
Part number completion:

Tolerance: 20 % = M

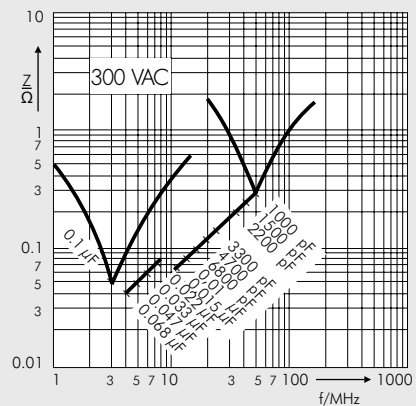
Packing: bulk = S

Pin length: 6-2 = SD

Taped version see page 161.



Impedance change with frequency (general guide)



Impedance change with frequency (general guide)

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:  $T_{max.} \leq 125^{\circ}C$   
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:  $T < 260^{\circ}C$

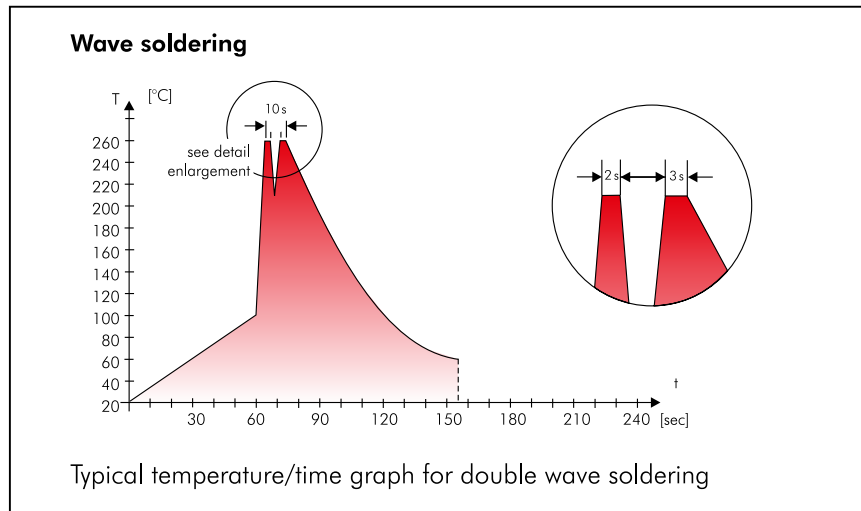
Dwell time:  $t < 5 \text{ sec}$

### Double wave soldering

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

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

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 by the infaz (Institut für Auditierung und Zertifizierung) 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 2011/65/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 refrained from using such substances since years already.



WIMA Kondensatoren sind bleifrei konform RoHS 2011/65/EU

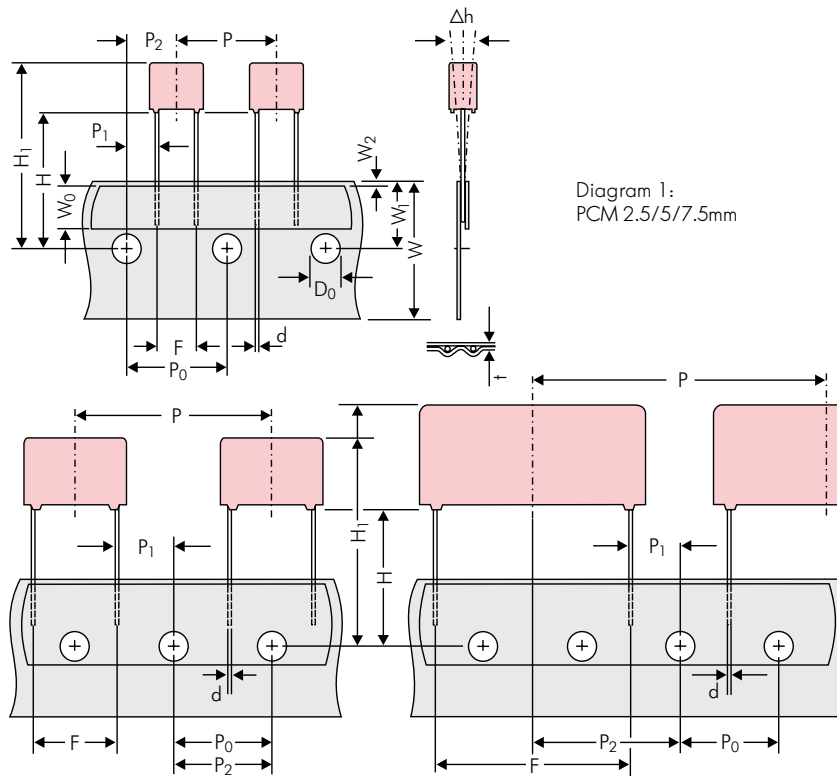
WIMA capacitors are lead free in accordance with RoHS 2011/65/EU

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



\*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 <sub>0</sub>	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 <sub>1</sub>	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 <sub>2</sub>	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 <sub>0</sub>	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 <sub>0</sub>	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 <sub>1</sub>	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 <sub>2</sub>	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 <sub>1</sub>	H+H <sub>component</sub> < H <sub>1</sub> 32.25 max.	H+H <sub>component</sub> < H <sub>1</sub> 32.25 max.	H+H <sub>component</sub> < H <sub>1</sub> 24.5 to 31.5	H+H <sub>component</sub> < H <sub>1</sub> 25.0 to 31.5	H+H <sub>component</sub> < H <sub>1</sub> 26.0 to 37.0	H+H <sub>component</sub> < H <sub>1</sub> 30.0 to 43.0	H+H <sub>component</sub> < H <sub>1</sub> 35.0 to 45.0
Pin spacing at upper edge of carrier tape	F	2.5 ±0.5	5.0 <sup>+0.8</sup> <sub>-0.2</sub>	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 <sup>+0.06</sup> <sub>-0.05</sub>	0.5 ±0.05 or 0.6 <sup>+0.06</sup> <sub>-0.05</sub>	0.8 <sup>+0.08</sup> <sub>-0.05</sub>	0.8 <sup>+0.08</sup> <sub>-0.05</sub>	0.8 <sup>+0.08</sup> <sub>-0.05</sub>
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 162)	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	52 ±2 58 ±2 or 66 ±2	REEL	φ 500 max. φ 25 ±1
Unit	see details page 163.							

Dims in mm.

\* Diameter of pins see General Data.

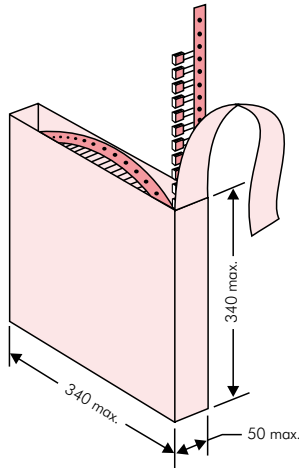
\* PCM 10 and PCM 15 can be crimped to PCM 7.5.

Position of components according to PCM 7.5 (sketch 11). P<sub>0</sub> = 12.7 or 15.0 is possible

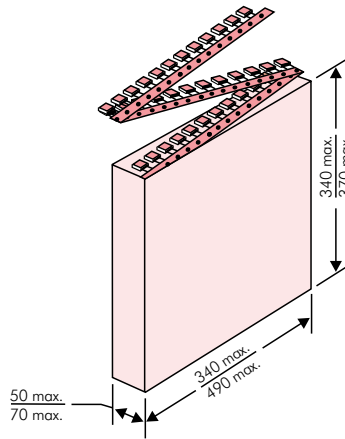
Please clarify customer-specific deviations with the manufacturer.

## Types of Tape Packaging of Capacitors for Automatic Radial Insertion

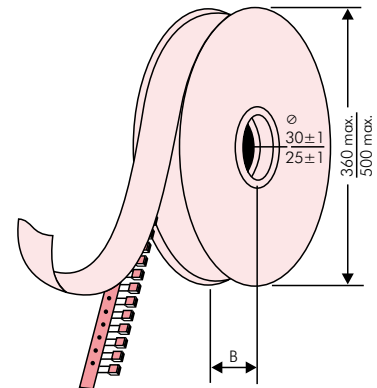
### ■ ROLL Packaging



### ■ AMMO Packaging



### ■ REEL Packaging



## BAR CODE (Labelling)

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



- 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.: MKP1F041006B00KSSD Quantity: 459


 

WIMA Confirmation No.: 0001105072000100 RoHS 2011/65/EU

 COO: DE

Customer No.: 0000100002

Gross Weight [g]: 4557 




WIMA - MKP 10 WIMA Part No.: MKP1F041006B00KSSD

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 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 x 340	490 x 370		
					N	O	F	I	H	J	A	C	B	D
<b>2.5 mm</b>	2.5	7	4.6	<b>0B</b>	5000		2200	2500				2800		
	3	7.5	4.6	<b>0C</b>	5000		2000	2300				2300		
	3.8	8.5	4.6	<b>0D</b>	5000		1500	1800				1800		
	4.6	9	4.6	<b>0E</b>	5000		1200	1500				1500		
	5.5	10	4.6	<b>0F</b>	5000		900	1200				1200		
<b>5 mm</b>	2.5	6.5	7.2	<b>1A</b>	5000		2200	2500				2800		
	3	7.5	7.2	<b>1B</b>	5000		2000	2300				2300		
	3.5	8.5	7.2	<b>1C</b>	5000		1600	2000				2000		
	4.5	6	7.2	<b>1D</b>	6000		1300	1500				1500		
	4.5	9.5	7.2	<b>1E</b>	4000		1300	1500				1500		
	5	10	7.2	<b>1F</b>	3500		1100	1400				1400		
	5.5	7	7.2	<b>1G</b>	4000		1000	1200				1200		
	5.5	11.5	7.2	<b>1H</b>	2500		1000	1200				1200		
	6.5	8	7.2	<b>1I</b>	2500		800	1000				1000		
	7.2	8.5	7.2	<b>1J</b>	2500		700	1000				1000		
	7.2	13	7.2	<b>1K</b>	2000		700	950				1000		
8.5	10	7.2	<b>1L</b>	2000		600	800				800			
8.5	14	7.2	<b>1M</b>	1500		600	800				800			
11	16	7.2	<b>1N</b>	1000		500	600				640			
<b>7.5 mm</b>	2.5	7	10	<b>2A</b>	5000			2500	4400			2500		
	3	8.5	10	<b>2B</b>	5000			2200	4300			2300		4150
	4	9	10	<b>2C</b>	4000			1700	3200			1700		3000
	4.5	9.5	10.3	<b>2D</b>	3500			1500	2900			1400		2700
	5	10.5	10.3	<b>2E</b>	3000			1300	2500			1300		
	5.7	12.5	10.3	<b>2F</b>	2000			1000	2200			1100		
	7.2	12.5	10.3	<b>2G</b>	1500			900	1800			1000		
<b>10 mm</b>	3	9	13	<b>3A</b>	3000			1100	2200					1900
	4	8.5	13.5	<b>FA</b>	3000			900	1600					1450
	4	9	13	<b>3C</b>	3000			900	1600					1450
	4	9.5	13	<b>3D</b>	3000			900	1600					1400
	5	10	13.5	<b>FB</b>	2000			700	1300					1200
	5	11	13	<b>3F</b>	3000			700	1300					1100
	6	12	13	<b>3G</b>	2400			550	1100					1000
	6	12.5	13	<b>3H</b>	2400			550	1100					1000
8	12	13	<b>3I</b>	2000			400	800					740	
<b>15 mm</b>	5	11	18	<b>4B</b>	2400			600	1200					1150
	5	13	19	<b>FC</b>	1000			600	1200					1200
	6	12.5	18	<b>4C</b>	2000			500	1000					1000
	6	14	19	<b>FD</b>	1000			500	1000					1000
	7	14	18	<b>4D</b>	1600			450	900					850
	7	15	19	<b>FE</b>	1000			450	900					850
	8	15	18	<b>4F</b>	1200			400	800					740
	8	17	19	<b>FF</b>	500			400	800					740
	9	14	18	<b>4H</b>	1200			350	700					650
	9	16	18	<b>4J</b>	900			350	700					650
10	18	19	<b>FG</b>	500			300	650					590	
11	14	18	<b>4M</b>	1000			300	600					540	
<b>22.5 mm</b>	5	14	26.5	<b>5A</b>	1200				800					770
	6	15	26.5	<b>5B</b>	1000				700					640
	7	16.5	26.5	<b>5D</b>	760				600					550
	8	20	28	<b>FH</b>	500				500					480
	8.5	18.5	26.5	<b>5F</b>	500				480					450
	10	22	28	<b>FI</b>	570*				420					380
	10.5	19	26.5	<b>5G</b>	594*				400					360
	10.5	20.5	26.5	<b>5H</b>	594*				400					360
	11	21	26.5	<b>5I</b>	561*				380					350
	12	24	28	<b>FJ</b>	480*				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 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			
<b>27.5 mm</b>	9	19	31.5	<b>6A</b>	567*	-	-	-	-	460/340*		-	-	-	-	-	-	
	11	21	31.5	<b>6B</b>	459*	-	-	-	-	380/280*		-	-	-	-	-	-	
	13	24	31.5	<b>6D</b>	378*	-	-	-	-	300		-	-	-	-	-	-	
	13	25	33	<b>FK</b>	405*	-	-	-	-	-		-	-	-	-	-	-	
	15	26	31.5	<b>6F</b>	324*	-	-	-	-	270		-	-	-	-	-	-	
	15	26	33	<b>FL</b>	324*	-	-	-	-	-		-	-	-	-	-	-	
	17	29	31.5	<b>6G</b>	198*	-	-	-	-	-		-	-	-	-	-	-	
	17	34.5	31.5	<b>6I</b>	198*	-	-	-	-	-		-	-	-	-	-	-	
	20	32	33	<b>FM</b>	162*	-	-	-	-	-		-	-	-	-	-	-	-
	20	39.5	31.5	<b>6J</b>	162*	-	-	-	-	-		-	-	-	-	-	-	-
<b>37.5 mm</b>	9	19	41.5	<b>7A</b>	441*	-	-	-	-	-	-	-	-	-	-	-	-	
	11	22	41.5	<b>7B</b>	357*	-	-	-	-	-	-	-	-	-	-	-	-	
	13	24	41.5	<b>7C</b>	294*	-	-	-	-	-	-	-	-	-	-	-	-	
	15	26	41.5	<b>7D</b>	252*	-	-	-	-	-	-	-	-	-	-	-	-	-
	17	29	41.5	<b>7E</b>	154*	-	-	-	-	-	-	-	-	-	-	-	-	-
	19	32	41.5	<b>7F</b>	140*	-	-	-	-	-	-	-	-	-	-	-	-	-
	20	39.5	41.5	<b>7G</b>	126*	-	-	-	-	-	-	-	-	-	-	-	-	-
	24	45.5	41.5	<b>7H</b>	112*	-	-	-	-	-	-	-	-	-	-	-	-	-
	28	38	41.5	<b>7L</b>	84*	-	-	-	-	-	-	-	-	-	-	-	-	-
	31	46	41.5	<b>7I</b>	84*	-	-	-	-	-	-	-	-	-	-	-	-	-
	35	50	41.5	<b>7J</b>	35*	-	-	-	-	-	-	-	-	-	-	-	-	-
	40	55	41.5	<b>7K</b>	28*	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>48.5 mm</b>	19	31	56	<b>8D</b>	120*	-	-	-	-	-	-	-	-	-	-	-	-	
	23	34	56	<b>8E</b>	80*	-	-	-	-	-	-	-	-	-	-	-	-	
	27	37.5	56	<b>8H</b>	84*	-	-	-	-	-	-	-	-	-	-	-	-	
	33	48	56	<b>8J</b>	25*	-	-	-	-	-	-	-	-	-	-	-	-	-
	37	54	56	<b>8L</b>	25*	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>52.5 mm</b>	25	45	57	<b>9D</b>	70*	-	-	-	-	-	-	-	-	-	-	-	-	
	30	45	57	<b>9E</b>	60*	-	-	-	-	-	-	-	-	-	-	-	-	
	35	50	57	<b>9F</b>	25*	-	-	-	-	-	-	-	-	-	-	-	-	
	45	55	57	<b>9H</b>	20*	-	-	-	-	-	-	-	-	-	-	-	-	-
	45	65	57	<b>9J</b>	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. Rights reserved to amend design data without prior notification.

Updated data on [www.wima.com](http://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
<b>M</b>	<b>K</b>	<b>S</b>	<b>2</b>	<b>C</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>A</b>	<b>0</b>	<b>0</b>	<b>M</b>	<b>S</b>	<b>S</b>	<b>D</b>
MKS 2				63 VDC		0.01 µF			2.5x6.5x7.2		-		20%	bulk	6 -2		

<p><b>Type description:</b></p> <p>SMD-PET = SMDT  SMD-PEN = SMDN  SMD-PPS = SMDI  FKP 02 = FKPO  MKS 02 = MKS0  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  MP 3-X2 = MPX2  MP 3-X1 = MPX1  MP 3-Y2 = MPY2  MP 3R-Y2 = MPRY  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><b>Rated voltage:</b></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  250 VAC = 0W  275 VAC = 1W  300 VAC = 2W  305 VAC = AW  350 VAC = BW  440 VAC = 4W  500 VAC = 5W  ...</p>	<p><b>Capacitance:</b></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><b>Size:</b></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 = XA  15.3x13.7x7 Size 6054 = YA  2.5x7x4.6 PCM 2.5 = 0B  3x7.5x4.6 PCM 2.5 = 0C  2.5x6.5x7.2 PCM 5 = 1A  3x7.5x7.2 PCM 5 = 1B  2.5x7x10 PCM 7.5 = 2A  3x8.5x10 PCM 7.5 = 2B  3x9x13 PCM 10 = 3A  4x9x13 PCM 10 = 3C  5x11x18 PCM 15 = 4B  6x12.5x18 PCM 15 = 4C  5x14x26.5 PCM 22.5 = 5A  6x15x26.5 PCM 22.5 = 5B  9x19x31.5 PCM 27.5 = 6A  11x21x31.5 PCM 27.5 = 6B  9x19x41.5 PCM 37.5 = 7A  11x22x41.5 PCM 37.5 = 7B  19x31x56 PCM 48.5 = 8D  25x45x57 PCM 52.5 = 9D  ...</p>	<p><b>Tolerance:</b></p> <p>±20% = M  ±10% = K  ±5% = J  ±2.5% = H  ±1% = E  ...</p> <p><b>Packing:</b></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><b>Version code:</b></p> <p>Standard = 00  Version A1 = 1A  Version A1.1.1 = 1B  Version A2 = 2A  ...</p>	<p><b>Pin length (untaped)</b></p> <p>3.5 ±0.5 = C9  6 -2 = SD  16 ±1 = P1  ...</p> <p><b>Pin length (taped)</b></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.



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Authorized Distributor

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[MPRY0W1470FD00MSSD](#) [MPRY0W2220FH00MSSD](#) [MP3RY2-4700/250/20](#) [MPRY2W3100FK00MSC4](#)  
[MPY20W1470FB00KD00](#) [MPY20W1470FB00MH00](#) [MPY20W1100FA00MB00](#) [MPRY0W1220FC00MD00](#)  
[MPRY0W2470FI00MYS](#) [MP3Y2-3300/250/20P10](#) [MPRY2W3100FK00MSSD](#) [MP3Y2-6800/250/20T](#) [MP3Y2-](#)  
[.022/250/20P15](#) [MPY20W2100FC00MD00](#) [MP3RY2-2200/250/20A](#) [MPRY2W1470FD00MSSD](#) [MP3Y2-](#)  
[.01/250/20P15A](#) [MPY20W2150FD00MSSD](#) [MP3Y2-2200/250/20P10](#) [MPRY0W3100FK00MSC4](#) [MP3Y2-](#)  
[1K5/250/20P10T](#) [MPY20W1220FA00MSC9](#) [MPRY0W3100FK00MYC4](#) [MP3Y2-2200/250LL3.5](#) [MP3Y2-](#)  
[.015/250/20P15](#) [MPY20W2220FE00MSSD](#) [MPY20W1330FA00MI00](#) [MPY20W1470FB00MD00](#)  
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[MPY20W1470FB00MI00](#) [MP3Y2-.022/250P15T](#) [MPY20W1220FA00MI00](#) [MP3Y2-4700/250/20T](#) [MP3RY2-](#)  
[.022/250/20](#) [MPRY0W3100FK00MSSD](#) [MP3RY2-.1/250/20P27](#) [MP3Y2-1500/250/20P10](#) [MP3Y2-3300/250/20T](#)  
[MPRY2W1220FC00MD00](#) [MPY20W1150FA00MSSD](#) [MPY20W2220FE00MI00](#) [MPY20W1680FC00MI00](#) [MP3Y2-](#)  
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[MPY20W1150FA00MI00](#) [MPY20W1100FA00MJ00](#) [MPRY2W1220FC00MSSD](#) [MPY20W2100FC00MF00](#)  
[MPY20W1220FA00MJ00](#) [MPY20W2100FC00MB00](#) [MPY20W1330FA00MF00](#) [MPY20W1470FB00MJ00](#)  
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