WIMA MKS 4

Metallized Polyester (PET) Capacitors in PCM 7.5 mm to 52.5 mm. Capacitances from 1000 pF to 680 µF. Rated Voltages from 50 VDC to 2000 VDC.

Special Features

- **High volume/capacitance ratio**
- **Self-healing**
- **According to RoHS 2011/65/EU**

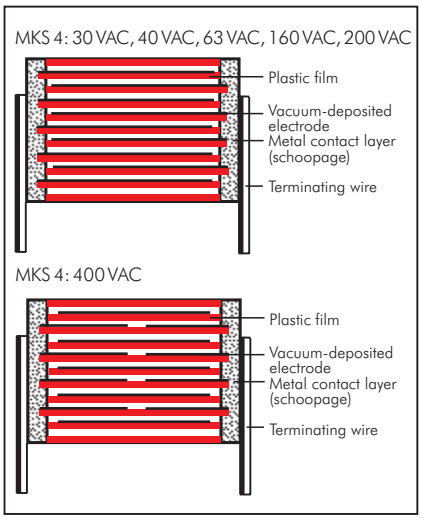
Typical Applications

For general DC-applications e.g.

- **By-pass**
- **Blocking**
- **Coupling and decoupling**
- **Smoothing**
- **Timing**

Construction

Dielectric:
Polyethylene-terephthalate (PET) 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 680 µF (E12-values on request)
Rated voltages:
50 VDC, 63 VDC, 100 VDC, 250 VDC, 400 VDC, 630 VDC, 1000 VDC, 1500 VDC, 2000 VDC
Capacitance tolerances:
±20%, ±10% ±5%
Operating temperature range:
U_r = 50 VDC: –55° C to +100° C
$U_r \geqslant$ 63 VDC: –55° C to +125° C
Climatic test category:
55/100/56 in accordance with IEC
Insulation resistance at +20° C:

Test voltage: 1.6 U_r, 2 sec.
Test specifications:
In accordance with IEC 60384-2
Voltage derating:
A voltage derating factor of 1.25 % per K must be applied from +85° C for DC voltages and from +75° C for AC voltages.
Reliability:
Operational life > 300 000 hours (+125° C permitted for 1000 hours max. distributed over the entire operating life)
Failure rate < 2 fit (0.5 x U_r and 40° C)

U_r	U_{test}	C ⩽ 0.33 µF	0.33 µF < C ⩽ 680 µF
50 VDC	100 V	⩾5 x 10^3 MΩ	⩾1500 sec (MΩ x µF)
63 VDC	100 V	⩾1 x 10^4 MΩ	⩾3000 sec (MΩ x µF)
100 VDC	200 V	⩾1.5 x 10^4 MΩ	⩾5000 sec (MΩ x µF)
⩾250 VDC	1.5 U_r	⩾3 x 10^4 MΩ	⩾10 000 sec (MΩ x µF)

Measuring time: 1 min.
Dissipation factors at + 20° C: tan δ

at f	C ⩽ 0.1 µF	0.1 µF < C ⩽ 1.0 µF	C > 1.0 µF
1 kHz	⩽ 8 x 10^{-3}	⩽ 8 x 10^{-3}	⩽ 10 x 10^{-3}
10 kHz	⩽ 15 x 10^{-3}	⩽ 15 x 10^{-3}	–
100 kHz	⩽ 30 x 10^{-3}	–	–

Maximum pulse rise time: for pulses equal to the rated voltage

Capacitance pF/µF	Pulse rise time V/µsec max. operation/test								
	50VDC	63VDC	100VDC	250VDC	400VDC	630VDC	1000VDC	1500VDC	2000VDC
1000 ... 6800	–	–	–	–	–	–	70/700	90/900	100/1000
0.01 ... 0.022	–	30/300	30/300	35/350	38/380	40/400	50/500	50/500	60/600
0.033 ... 0.068	–	15/150	15/150	20/200	25/250	32/320	26/260	35/350	40/400
0.1 ... 0.22	10/100	10/100	12/120	15/150	15/150	17/170	20/200	35/350	40/400
0.33 ... 0.68	9/90	9/90	9/90	10/100	10/100	13/130	20/200	20/200	38/380
1.0 ... 2.2	6/60	6/60	5/50	6/60	9/90	13/130	14/140	15/150	15/150
3.3 ... 6.8	2.5/25	3/30	3/30	6/60	6/60	9/90	12/120	–	–
10 ... 22	2.5/25	2.5/25	2.5/25	3/30	6/60	6/60	6/60	–	–
33 ... 68	2.5/25	2.5/25	2.5/25	3/30	3/30	–	–	–	–
100 ... 220	2.5/25	2.5/25	2.5/25	0.9/9	–	–	–	–	–
330 ... 680	0.2/2	0.2/2	0.3/3	–	–	–	–	–	–

Mechanical Tests

Pull test on pins:
d ⩽ 0.8 ø: 10 N in direction of pins
d > 0.8 ø: 20 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^2 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.

Continuation

General Data

Capacitance	50 VDC/30 VAC*					63 VDC/40 VAC*				
	W	H	L	PCM**	Part number	W	H	L	PCM**	Part number
0.01 µF						2.5	7	10	**7.5**	MKS4C021002A_____
						4	9	13	10	MKS4C021003C_____
0.015 „						2.5	7	10	**7.5**	MKS4C021502A_____
						4	9	13	10	MKS4C021503C_____
0.022 „						2.5	7	10	**7.5**	MKS4C022202A_____
						4	9	13	10	MKS4C022203C_____
0.033 „						2.5	7	10	**7.5**	MKS4C023302A_____
						4	9	13	10	MKS4C023303C_____
0.047 „						2.5	7	10	**7.5**	MKS4C024702A_____
						4	9	13	10	MKS4C024703C_____
0.068 „						2.5	7	10	**7.5**	MKS4C026802A_____
						4	9	13	10	MKS4C026803C_____
0.1 µF	2.5	7	10	**7.5**	MKS4B031002A_____	2.5	7	10	**7.5**	MKS4C031002A_____
						4	9	13	10	MKS4C031003C_____
0.15 „	2.5	7	10	**7.5**	MKS4B031502A_____	2.5	7	10	**7.5**	MKS4C031502A_____
						4	9	13	10	MKS4C031503C_____
0.22 „	2.5	7	10	**7.5**	MKS4B032202A_____	3	8.5	10	**7.5**	MKS4C032202B_____
						4	9	13	10	MKS4C032203C_____
0.33 „	2.5	7	10	**7.5**	MKS4B033302A_____	4	9	10	**7.5**	MKS4C033302C_____
						4	9	13	10	MKS4C033303C_____
0.47 „	3	8.5	10	**7.5**	MKS4B034702B_____	4	9	10	**7.5**	MKS4C034702C_____
						4	9	13	10	MKS4C034703C_____
0.68 ”	4	9	10	**7.5**	MKS4B036802C_____	5	10.5	10.3	**7.5**	MKS4C036802E_____
						4	9	13	10	MKS4C036803C_____
1.0 µF	4	9	10	**7.5**	MKS4B041002C_____	5	10.5	10.3	**7.5**	MKS4C041002E_____
						4	9	13	10	MKS4C041003C_____
1.5 „	5	10.5	10.3	**7.5**	MKS4B041502E_____	5.7	12.5	10.3	**7.5**	MKS4C041502F_____
						5	11	13	10	MKS4C041503F_____
2.2 „	5.7	12.5	10.3	**7.5**	MKS4B042202F_____	5	11	13	10	MKS4C042203F_____
						6	12.5	18	15	MKS4C042204C_____
3.3 „	5.7	12.5	10.3	**7.5**	MKS4B043302F_____	6	12	13	10	MKS4C043303G_____
						7	14	18	15	MKS4C043304D_____
4.7 „	7.2	12.5	10.3	**7.5**	MKS4B044702G_____	7	14	18	15	MKS4C044704D_____
	6	12	13	10	MKS4B044703G_____	6	15	26.5	22.5	MKS4C044705B_____
6.8 „	7.2	12.5	10.3	**7.5**	MKS4B046802G_____	8	15	18	15	MKS4C046804F_____
	6	12	13	10	MKS4B046803G_____	7	16.5	26.5	22.5	MKS4C046805D_____
10 µF	9	16	18	15	MKS4B051004J_____	8.5	18.5	26.5	22.5	MKS4C051005F_____
						11	21	31.5	27.5	MKS4C051006B_____
15 „	11	21	26.5	22.5	MKS4B051505I_____	11	21	26.5	22.5	MKS4C051505I_____
						11	21	31.5	27.5	MKS4C051506B_____
22 „	11	21	31.5	27.5	MKS4B052206B_____	13	24	31.5	27.5	MKS4C052206D_____
33 „	13	24	31.5	27.5	MKS4B053306D_____	15	26	31.5	27.5	MKS4C053306F_____
47 „	15	26	31.5	27.5	MKS4B054706F_____	17	29	31.5	27.5	MKS4C054706G_____
	13	24	41.5	37.5	MKS4B054707C_____	17	29	41.5	37.5	MKS4C054707E_____
68 „	20	39.5	31.5	27.5	MKS4B056806J_____	20	39.5	31.5	27.5	MKS4C056806J_____
	17	29	41.5	37.5	MKS4B056807E_____	19	32	41.5	37.5	MKS4C056807F_____
100 µF	19	32	41.5	37.5	MKS4B061007F_____	20	39.5	41.5	37.5	MKS4C061007G_____
150 „	20	39.5	41.5	37.5	MKS4B061507G_____	24	45.5	41.5	37.5	MKS4C061507H_____
220 „	24	45.5	41.5	37.5	MKS4B062207H_____	40	55	41.5	37.5	MKS4C062207K_____
330 „	40	55	41.5	37.5	MKS4B063307K_____	45	55	57	52.5	MKS4C063309H_____
470 „	35	50	57	52.5	MKS4B064709F_____	45	55	57	52.5	MKS4C064709H_____
680 „	45	55	57	52.5	MKS4B066809H_____	45	65	57	52.5	MKS4C066809J_____

* AC voltages: f = 50 Hz; 1.4 x U_{rms} + UDC ⩽ U_r

** PCM = printed circuit module = pin spacing

Dims. in mm.

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Continuation

General Data

Capacitance	100 VDC/63 VAC*					250 VDC/160 VAC*				
	W	H	L	PCM**	Part number	W	H	L	PCM**	Part number
0.01 µF	2.5	7	10	**7.5**	MKS4D021002A_____	3	8.5	10	**7.5**	MKS4F021002B_____
	4	9	13	10	MKS4D021003C_____	4	9	13	10	MKS4F021003C_____
0.015 „	2.5	7	10	**7.5**	MKS4D021502A_____	3	8.5	10	**7.5**	MKS4F021502B_____
	4	9	13	10	MKS4D021503C_____	4	9	13	10	MKS4F021503C_____
0.022 „	2.5	7	10	**7.5**	MKS4D022202A_____	3	8.5	10	**7.5**	MKS4F022202B_____
	4	9	13	10	MKS4D022203C_____	4	9	13	10	MKS4F022203C_____
0.033 „	2.5	7	10	**7.5**	MKS4D023302A_____	3	8.5	10	**7.5**	MKS4F023302B_____
	4	9	13	10	MKS4D023303C_____	4	9	13	10	MKS4F023303C_____
0.047 „	2.5	7	10	**7.5**	MKS4D024702A_____	3	8.5	10	**7.5**	MKS4F024702B_____
	4	9	13	10	MKS4D024703C_____	4	9	13	10	MKS4F024703C_____
0.068 „	2.5	7	10	**7.5**	MKS4D026802A_____	4	9	10	**7.5**	MKS4F026802C_____
	4	9	13	10	MKS4D026803C_____	4	9	13	10	MKS4F026803C_____
0.1 µF	2.5	7	10	**7.5**	MKS4D031002A_____	4	9	10	**7.5**	MKS4F031002C_____
	4	9	13	10	MKS4D031003C_____	4	9	13	10	MKS4F031003C_____
0.15 „	3	8.5	10	**7.5**	MKS4D031502B_____	5	10.5	10.3	**7.5**	MKS4F031502E_____
	4	9	13	10	MKS4D031503C_____	4	9	13	10	MKS4F031503C_____
0.22 „	3	8.5	10	**7.5**	MKS4D032202B_____	5	10.5	10.3	**7.5**	MKS4F032202E_____
	4	9	13	10	MKS4D032203C_____	5	11	13	10	MKS4F032203F_____
0.33 „	4	9	10	**7.5**	MKS4D033302C_____	5.7	12.5	10.3	**7.5**	MKS4F033302F_____
	4	9	13	10	MKS4D033303C_____	5	11	13	10	MKS4F033303F_____
0.47 „	4.5	9.5	10.3	**7.5**	MKS4D034702D_____	6	12	13	10	MKS4F034703G_____
	4	9	13	10	MKS4D034703C_____	6	12.5	18	15	MKS4F034704C_____
0.68 „	5	10.5	10.3	**7.5**	MKS4D036802E_____	7	14	18	15	MKS4F036804D_____
	4	9	13	10	MKS4D036803C_____					
1.0 µF	5.7	12.5	10.3	**7.5**	MKS4D041002F_____	8	15	18	15	MKS4F041004F_____
	5	11	13	10	MKS4D041003F_____	6	15	26.5	22.5	MKS4F041005B_____
1.5 „	6	12	13	10	MKS4D041503G_____	9	16	18	15	MKS4F041504J_____
	7	14	18	15	MKS4D041504D_____	7	16.5	26.5	22.5	MKS4F041505D_____
2.2 „	8	15	18	15	MKS4D042204F_____	10.5	19	26.5	22.5	MKS4F042205G_____
	6	15	26.5	22.5	MKS4D042205B_____	9	19	31.5	27.5	MKS4F042206A_____
3.3 „	9	16	18	15	MKS4D043304J_____	11	21	26.5	22.5	MKS4F043305I_____
	7	16.5	26.5	22.5	MKS4D043305D_____	11	21	31.5	27.5	MKS4F043306B_____
4.7 „	10.5	19	26.5	22.5	MKS4D044705G_____	11	21	31.5	27.5	MKS4F044706B_____
	9	19	31.5	27.5	MKS4D044706A_____					
6.8 „	10.5	19	26.5	22.5	MKS4D046805G_____	13	24	31.5	27.5	MKS4F046806D_____
	11	21	31.5	27.5	MKS4D046806B_____					
10 µF	13	24	31.5	27.5	MKS4D051006D_____	17	29	31.5	27.5	MKS4F051006G_____
15 „	13	24	31.5	27.5	MKS4D051506D_____	17	34.5	31.5	27.5	MKS4F051506I_____
						17	29	41.5	37.5	MKS4F051507E_____
22 „	15	26	31.5	27.5	MKS4D052206F_____	19	32	41.5	37.5	MKS4F052207F_____
33 „	17	29	31.5	27.5	MKS4D053306G_____	24	45.5	41.5	37.5	MKS4F053307H_____
	13	24	41.5	37.5	MKS4D053307C_____					
47 „	17	29	41.5	37.5	MKS4D054707E_____	31	46	41.5	37.5	MKS4F054707I_____
68 „	20	39.5	41.5	37.5	MKS4D056807G_____	40	55	41.5	37.5	MKS4F056807K_____
100 µF	24	45.5	41.5	37.5	MKS4D061007H_____	45	65	57	52.5	MKS4F061009J_____
150 „	31	46	41.5	37.5	MKS4D061507I_____	45	65	57	52.5	MKS4F061509J_____
220 „	40	55	41.5	37.5	MKS4D062207K_____					
330 „	45	55	57	52.5	MKS4D063309H_____					
470 „	45	65	57	52.5	MKS4D064709J_____					

* AC voltages: f = 50 Hz; 1.4 x U_{rms} + UDC ⩽ U_r

** PCM = printed circuit module = pin spacing

Dims. in mm.

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Part number completion:

Version code:	2-pin	= 00
	4-pin	= D4
Tolerance:	20 %	= M
	10 %	= K
	5 %	= J
Packing:	bulk	= S
Pin length:	6-2	= SD

Taped version see page 149.

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Continuation

General Data

Capacitance	400 VDC/200 VAC*					630 VDC/400 VAC*				
	W	H	L	PCM**	Part number	W	H	L	PCM**	Part number
0.01 µF	3	8.5	10	**7.5**	MKS4G021002B_____	3	8.5	10	**7.5***	MKS4J021002B_____
	4	9	13	10	MKS4G021003C_____	4	9	13	10	MKS4J021003C_____
0.015 „	3	8.5	10	**7.5**	MKS4G021502B_____	4	9	10	**7.5***	MKS4J021502C_____
	4	9	13	10	MKS4G021503C_____	4	9	13	10	MKS4J021503C_____
0.022 „	4	9	10	**7.5**	MKS4G022202C_____	4.5	9.5	10.3	**7.5***	MKS4J022202D_____
	4	9	13	10	MKS4G022203C_____	4	9	13	10	MKS4J022203C_____
0.033 „	4	9	10	**7.5**	MKS4G023302C_____	5	10.5	10.3	**7.5***	MKS4J023302E_____
	4	9	13	10	MKS4G023303C_____	5	11	13	10	MKS4J023303F_____
0.047 „	5	10.5	10.3	**7.5**	MKS4G024702E_____	5.7	12.5	10.3	**7.5***	MKS4J024702F_____
	4	9	13	10	MKS4G024703C_____	6	12	13	10	MKS4J024703G_____
0.068 „	5	10.5	10.3	**7.5**	MKS4G026802E_____	6	12	13	10	MKS4J026803G_____
	4	9	13	10	MKS4G026803C_____	5	11	18	15	MKS4J026804B_____
0.1 µF	5	10.5	10.3	**7.5**	MKS4G031002E_____	6	12.5	18	15	MKS4J031004C_____
	5	11	13	10	MKS4G031003F_____	6	15	26.5	22.5	MKS4J031005B_____
0.15 „	5.7	12.5	10.3	**7.5**	MKS4G031502F_____	7	14	18	15	MKS4J031504D_____
	6	12	13	10	MKS4G031503G_____	6	15	26.5	22.5	MKS4J031505B_____
0.22 „	6	12	13	10	MKS4G032203G_____	8	15	18	15	MKS4J032204F_____
	6	12.5	18	15	MKS4G032204C_____	6	15	26.5	22.5	MKS4J032205B_____
0.33 „	8	15	18	15	MKS4G033304F_____	7	16.5	26.5	22.5	MKS4J033305D_____
						9	19	31.5	27.5	MKS4J033306A_____
0.47 „	8	15	18	15	MKS4G034704F_____	10.5	19	26.5	22.5	MKS4J034705G_____
	6	15	26.5	22.5	MKS4G034705B_____	9	19	31.5	27.5	MKS4J034706A_____
0.68 „	7	16.5	26.5	22.5	MKS4G036805D_____	11	21	26.5	22.5	MKS4J036805I_____
						11	21	31.5	27.5	MKS4J036806B_____
1.0 µF	10.5	19	26.5	22.5	MKS4G041005G_____	11	21	31.5	27.5	MKS4J041006B_____
	11	21	31.5	27.5	MKS4G041006B_____					
1.5 „	11	21	26.5	22.5	MKS4G041505I_____	15	26	31.5	27.5	MKS4J041506F_____
	11	21	31.5	27.5	MKS4G041506B_____					
2.2 „	11	21	31.5	27.5	MKS4G042206B_____	17	34.5	31.5	27.5	MKS4J042206I_____
						15	26	41.5	37.5	MKS4J042207D_____
3.3 „	13	24	31.5	27.5	MKS4G043306D_____	20	39.5	31.5	27.5	MKS4J043306J_____
						19	32	41.5	37.5	MKS4J043307F_____
4.7 „	17	29	31.5	27.5	MKS4G044706G_____	20	39.5	41.5	37.5	MKS4J044707G_____
6.8 „	17	34.5	31.5	27.5	MKS4G046806I_____	24	45.5	41.5	37.5	MKS4J046807H_____
	15	26	41.5	37.5	MKS4G046807D_____					
10 µF	19	32	41.5	37.5	MKS4G051007F_____	35	50	41.5	37.5	MKS4J051007J_____
15 „	20	39.5	41.5	37.5	MKS4G051507G_____	40	55	41.5	37.5	MKS4J051507K_____
22 „	31	46	41.5	37.5	MKS4G052207I_____	45	55	57	52.5	MKS4J052209H_____
33 „	35	50	41.5	37.5	MKS4G053307J_____					
47 „	35	50	57	52.5	MKS4G054709F_____					
68 „	45	65	57	52.5	MKS4G056809J_____					

* AC voltages: f = 50 Hz; 1.4 x U_{rms} + UDC ⩽ U_r

** PCM = printed circuit module = pin spacing

* Admissible AC voltage 250 VAC max.

Dims. in mm.

Part number completion:		
Version code:	2-pin	= 00
	4-pin	= D4
Tolerance:	20 %	= M
	10 %	= K
	5 %	= J
Packing:	bulk	= S
Pin length:	6-2	= SD

Taped version see page 149.

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Continuation page 54

Continuation

General Data

Capacitance	1000 VDC/400 VAC*					1500 VDC/400 VAC*				
	W	H	L	PCM**	Part number	W	H	L	PCM**	Part number
1000 pF	3	8.5	10	**7.5**	MKS4O111002B_____	4	9	13	10	MKS4S011003C_____
	4	9	13	10	MKS4O111003C_____					
1500 „	3	8.5	10	**7.5**	MKS4O111502B_____	4	9	13	10	MKS4S011503C_____
	4	9	13	10	MKS4O111503C_____					
2200 „	3	8.5	10	**7.5**	MKS4O112202B_____	4	9	13	10	MKS4S012203C_____
	4	9	13	10	MKS4O112203C_____					
3300 „	4	9	10	**7.5**	MKS4O113302C_____	4	9	13	10	MKS4S013303C_____
	4	9	13	10	MKS4O113303C_____					
4700 „	4	9	10	**7.5**	MKS4O114702C_____	4	9	13	10	MKS4S014703C_____
	4	9	13	10	MKS4O114703C_____	5	11	18	15	MKS4S014704B_____
6800 „	4.5	9.5	10.3	**7.5**	MKS4O116802D_____	5	11	13	10	MKS4S016803F_____
	4	9	13	10	MKS4O116803C_____	5	11	18	15	MKS4S016804B_____
0.01 µF	5	10.5	10.3	**7.5**	MKS4O121002E_____	6	12	13	10	MKS4S021003G_____
	5	11	13	10	MKS4O121003F_____	5	11	18	15	MKS4S021004B_____
0.015 „	5.7	12.5	10.3	**7.5**	MKS4O121502F_____	6	12.5	18	15	MKS4S021504C_____
	6	12	13	10	MKS4O121503G_____					
0.022 „	5	11	18	15	MKS4O122204B_____	7	14	18	15	MKS4S022204D_____
						6	15	26.5	22.5	MKS4S022205B_____
0.033 „	6	12.5	18	15	MKS4O123304C_____	8	15	18	15	MKS4S023304F_____
	6	15	26.5	22.5	MKS4O123305B_____	6	15	26.5	22.5	MKS4S023305B_____
0.047 „	7	14	18	15	MKS4O124704D_____	7	16.5	26.5	22.5	MKS4S024705D_____
	6	15	26.5	22.5	MKS4O124705B_____					
0.068 „	8	15	18	15	MKS4O126804F_____	8.5	18.5	26.5	22.5	MKS4S026805F_____
	6	15	26.5	22.5	MKS4O126805B_____					
0.1 µF	9	16	18	15	MKS4O131004J_____	10.5	19	26.5	22.5	MKS4S031005G_____
	7	16.5	26.5	22.5	MKS4O131005D_____	9	19	31.5	27.5	MKS4S031006A_____
0.15 „	8.5	18.5	26.5	22.5	MKS4O131505F_____	11	21	31.5	27.5	MKS4S031506B_____
0.22 „	10.5	19	26.5	22.5	MKS4O132205G_____	13	24	31.5	27.5	MKS4S032206D_____
0.33 „	11	21	26.5	22.5	MKS4O133305I_____	17	34.5	31.5	27.5	MKS4S033306I_____
	11	21	31.5	27.5	MKS4O133306B_____	17	29	41.5	37.5	MKS4S033307E_____
0.47 „	13	24	31.5	27.5	MKS4O134706D_____	20	39.5	31.5	27.5	MKS4S034706J_____
						17	29	41.5	37.5	MKS4S034707E_____
0.68 „	15	26	31.5	27.5	MKS4O136806F_____	20	39.5	41.5	37.5	MKS4S036807G_____
1.0 µF	17	29	31.5	27.5	MKS4O141006G_____	24	45.5	41.5	37.5	MKS4S041007H_____
	17	29	41.5	37.5	MKS4O141007E_____					
1.5 „	19	32	41.5	37.5	MKS4O141507F_____	31	46	41.5	37.5	MKS4S041507I_____
2.2 „	20	39.5	41.5	37.5	MKS4O142207G_____	35	50	41.5	37.5	MKS4S042207J_____
						35	50	57	52.5	MKS4S042209F_____
3.3 „	24	45.5	41.5	37.5	MKS4O143307H_____	45	55	57	52.5	MKS4S043309H_____
4.7 „	35	50	41.5	37.5	MKS4O144707J_____	45	65	57	52.5	MKS4S044709J_____
6.8 „	40	55	41.5	37.5	MKS4O146807K_____					
	35	50	57	52.5	MKS4O146809F_____					
10 µF	45	55	57	52.5	MKS4O151009H_____					

* AC voltages: f = 50 Hz; 1.4 x U_{rms} + UDC ⩽ U_r

** PCM = printed circuit module = pin spacing

Dims. in mm.

Part number completion:		
Version code:	2-pin	= 00
	4-pin	= D4
Tolerance:	20 %	= M
	10 %	= K
	5 %	= J
Packing:	bulk	= S
Pin length:	6-2	= SD

Taped version see page 149.

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Continuation page 55

Continuation

General Data

Capacitance	2000 VDC/400 VAC* W	H	L	PCM**	Part number
1000 pF	4	9	13	10	MKS4U011003C_____
1500 „	4	9	13	10	MKS4U011503C_____
2200 „	5	11	13	10	MKS4U012203F_____
3300 „	6	12	13	10	MKS4U013303H_____
	5	11	18	15	MKS4U013304B_____
4700 „	5	11	18	15	MKS4U014704B_____
6800 „	6	12.5	18	15	MKS4U016804C_____
0.01 µF	7	14	18	15	MKS4U021004D_____
	6	15	26.5	22.5	MKS4U021005B_____
0.015 „	6	15	26.5	22.5	MKS4U021505B_____
0.022 „	7	16.5	26.5	22.5	MKS4U022205D_____
0.033 „	10.5	19	26.5	22.5	MKS4U023305G_____
0.047 „	11	21	26.5	22.5	MKS4U024705I_____
	11	21	31.5	27.5	MKS4U024706B_____
0.068 „	11	21	31.5	27.5	MKS4U026806B_____
0.1 µF	13	24	31.5	27.5	MKS4U031006D_____
0.15 „	17	29	31.5	27.5	MKS4U031506G_____
	13	24	41.5	37.5	MKS4U031507C_____
0.22 „	17	29	41.5	37.5	MKS4U032207E_____
0.33 „	20	39.5	41.5	37.5	MKS4U033307G_____
0.47 „	24	45.5	41.5	37.5	MKS4U034707H_____
0.68 „	31	46	41.5	37.5	MKS4U036807I_____
1.0 µF	40	55	41.5	37.5	MKS4U041007K_____
	35	50	57	52.5	MKS4U041009F_____
1.5 „	45	55	57	52.5	MKS4U041509H_____
2.2 „	45	65	57	52.5	MKS4U042209J_____

* AC voltage: f = 50 Hz; 1.4 x U_{rms} + UDC ⩽ U_r

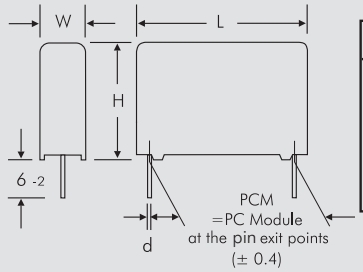
** PCM = Printed circuit module = pin spacing

Dims. in mm.

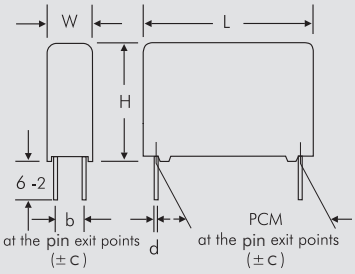
The values of the WIMA MKM 4 ranges according to the main catalogue 2009 are still available on request.

Part number completion:		
Version code:	2-pin	= 00
	4-pin	= D4
Tolerance:	20 %	= M
	10 %	= K
	5 %	= J
Packing:	bulk	= S
Pin length:	6-2	= SD

Taped version see page 149.



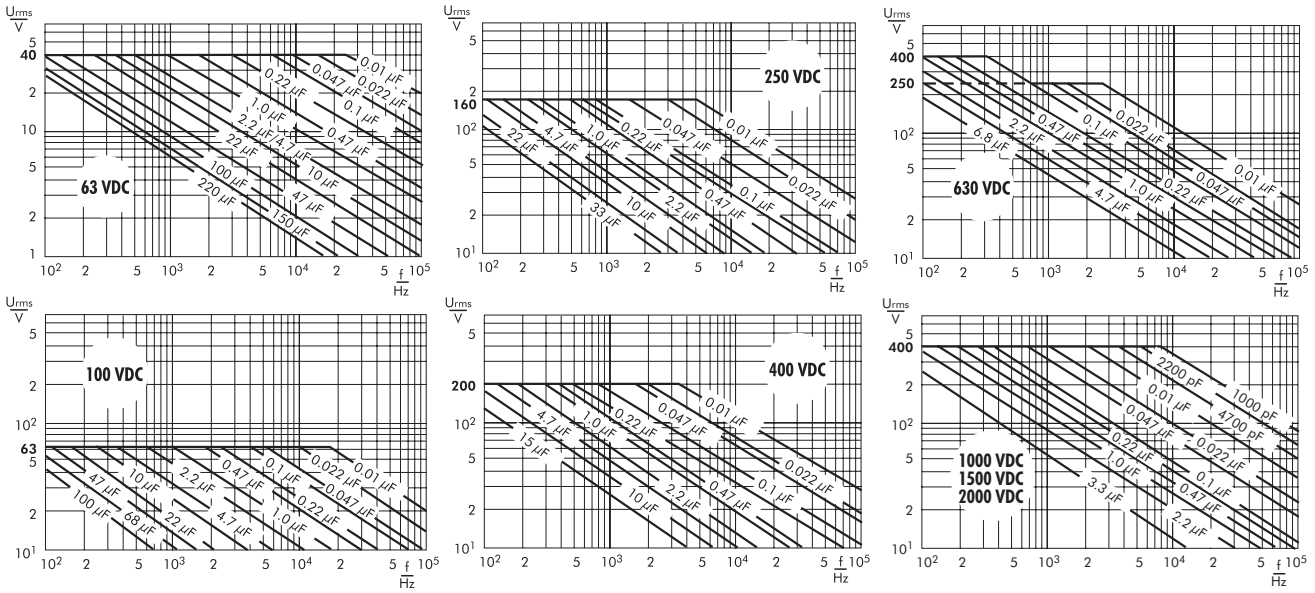
Ø d	PCM	W
0.5	7.5	⩽ 3
0.6	7.5	⩾ 4
0.6	10	
0.8	15 - 27.5	
1.0	37.5	



W	PCM	b	Ø d	c
17	37.5	10	1.0	0.4
19	37.5	10	1.0	0.4
20	37.5	12.5	1.0	0.4
24	37.5	12.5	1.0	0.4
31	37.5	20	1.0	0.4
35	37.5	20	1.0	0.4
40	37.5	20	1.0	0.4
35	52.5	20	1.2	0.8
45	52.5	20	1.2	0.8

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



Recommendation for Processing and Application of Through-Hole Capacitors

Soldering Process

Internal temperature of the capacitor must be kept as follows:

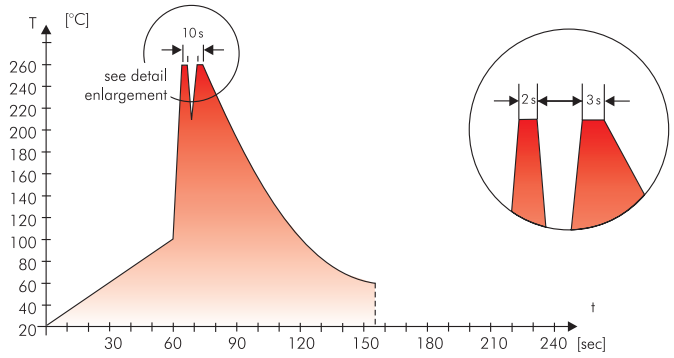
Polyester:	preheating:	$T_{max.} \leqslant 125°$ C
	soldering:	$T_{max.} \leqslant 135°$ C
Polypropylene:	preheating:	$T_{max.} \leqslant 100°$ C
	soldering:	$T_{max.} \leqslant 110°$ C

Single wave soldering
Soldering bath temperature: T < 260° C
Dwell time: t < 5 sec

Double wave soldering
Soldering bath temperature: T < 260° C
Dwell time: Σt < 5 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 9001:2015 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 refraind from using such substances since years already.

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

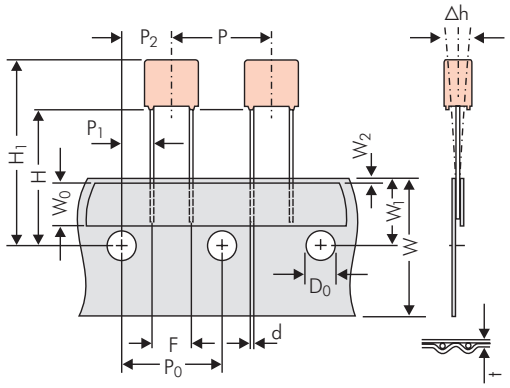


Diagram 1:
PCM 2.5/5/7.5mm

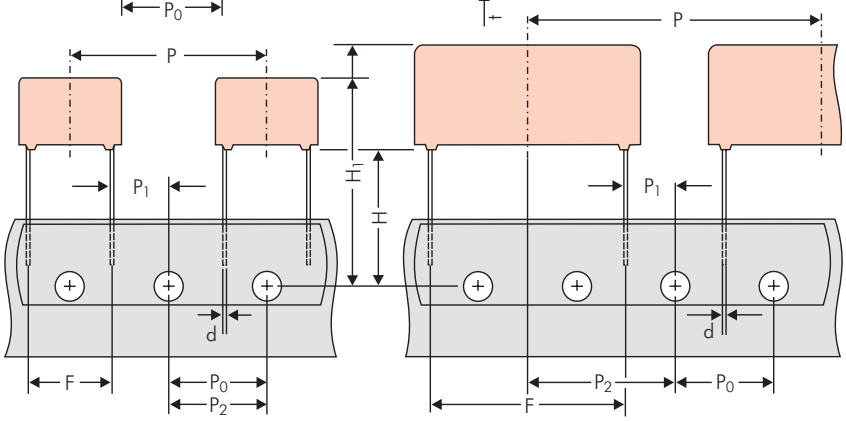


Diagram 2: PCM 10/15 mm

Diagram 3: PCM 22.5 and 27.5*mm
*PCM 27.5 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	0.6 ±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 150)		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 } depending on PCM and component dimensions				
Unit		see details page 151.						

Dims in mm.

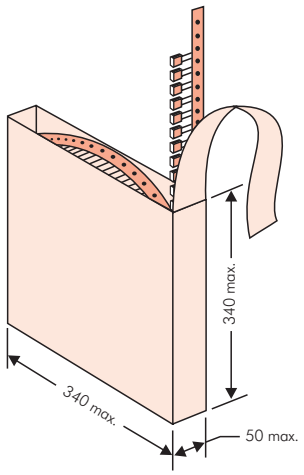
• Diameter of pins see General Data.

Please clarify customer-specific deviations with the manufacturer.

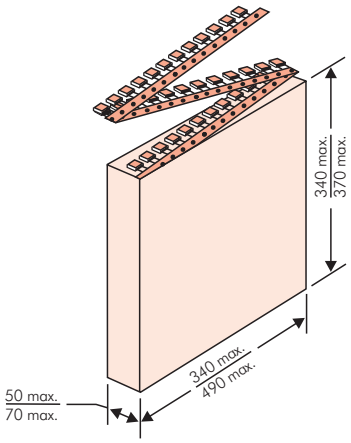
* PCM 10 and PCM 15 can be crimped to PCM 7.5.
Position of components according to PCM 7.5 (sketch 1). P_0 = 12.7 or 15.0 is possible

Types of Tape Packaging of Capacitors for Automatic Radial Insertion

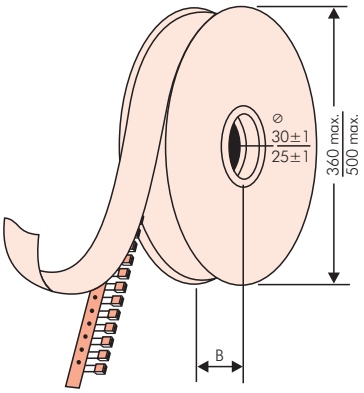
ROLL Packaging



AMMO Packaging



REEL Packaging



BAR CODE (Labelling)

Labelling of package units in plain text and with 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.



BARCODE „Code 39"

01.19

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			
								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
	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	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		3100	
	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	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**	570*	–		–		420		–		380	
	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	
	12	24	28	**FJ**	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				pcs. per packing unit									
					bulk	ROLL		REEL				AMMO			
								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
	W	H	L	Codes	S	N	O	F	I	H	J	A	C	B	D
27.5 mm	9	19	31.5	**6A**	567*	–		–		460/340*		–		420	
	11	21	31.5	**6B**	459*	–		–		380/280*		–		350	
	13	24	31.5	**6D**	378*	–		–		300		–		290	
	13	25	33	**FK**	405*	–		–		–		–		–	
	15	26	31.5	**6F**	324*	–		–		270		–		250	
	15	26	33	**FL**	324*	–		–		–		–		–	
	17	29	31.5	**6G**	198*	–		–		–		–		–	
	17	34.5	31.5	**6I**	198*	–		–		–		–		–	
	20	32	33	**FM**	162*	–		–		–		–		–	
	20	39.5	31.5	**6J**	162*	–		–		–		–		–	
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*	–		–		–		–		–	
	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*	–		–		–		–		–	

* 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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Updated data on www.wima.com

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 x 6.5 x 7.2		-		20%	bulk	6 -2	

Type description:

SMD-PET	= SMDT
SMD-PEN	= SMDN
SMD-PPS	= SMDI
FKP 02	= FKP0
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 4C	= MKPC
MKP 4	= MKP4
MKP 10	= MKP1
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 3	= DCP3
DC-LINK MKP 4	= DCP4
DC-LINK MKP 4S	= DCPS
DC-LINK MKP 5	= DCP5
DC-LINK MKP 6	= DCP6
DC-LINK HC	= DCHC
DC-LINK HY	= DCHY

Rated voltage:

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
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
...	

Capacitance:

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
...	

Size:

4.8 x 3.3 x 3 Size 1812	= KA
4.8 x 3.3 x 4 Size 1812	= KB
5.7 x 5.1 x 3.5 Size 2220	= QA
5.7 x 5.1 x 4.5 Size 2220	= QB
7.2 x 6.1 x 3 Size 2824	= TA
7.2 x 6.1 x 5 Size 2824	= TB
10.2 x 7.6 x 5 Size 4030	= VA
12.7 x 10.2 x 6 Size 5040	= XA
15.3 x 13.7 x 7 Size 6054	= YA
2.5 x 7 x 4.6 PCM 2.5	= 0B
3 x 7.5 x 4.6 PCM 2.5	= 0C
2.5 x 6.5 x 7.2 PCM 5	= 1A
3 x 7.5 x 7.2 PCM 5	= 1B
2.5 x 7 x 10 PCM 7.5	= 2A
3 x 8.5 x 10 PCM 7.5	= 2B
3 x 9 x 13 PCM 10	= 3A
4 x 9 x 13 PCM 10	= 3C
5 x 11 x 18 PCM 15	= 4B
6 x 12.5 x 18 PCM 15	= 4C
5 x 14 x 26.5 PCM 22.5	= 5A
6 x 15 x 26.5 PCM 22.5	= 5B
9 x 19 x 31.5 PCM 27.5	= 6A
11 x 21 x 31.5 PCM 27.5	= 6B
9 x 19 x 41.5 PCM 37.5	= 7A
11 x 22 x 41.5 PCM 37.5	= 7B
19 x 31 x 56 PCM 48.5	= 8D
25 x 45 x 57 PCM 52.5	= 9D
...	

Version code:

Standard	= 00
Version A1	= 1A
Version A1.1.1	= 1B
Version A2	= 2A
...	

Tolerance:

±20%	= M
±10%	= K
±5%	= J
±2.5%	= H
±1%	= E
...	

Packing:

AMMO H16.5 340 x 340	= A
AMMO H16.5 490 x 370	= B
AMMO H18.5 340 x 340	= C
AMMO H18.5 490 x 370	= 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
...	

Pin length (untaped)

3.5 ±0.5	= C9
6 -2	= SD
16 ±1	= P1
...	

Pin length (taped)

none	= 00

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.