

WIMA DC-LINK MKP 3



Metallized Polypropylene (PP) - Capacitors for DC-Link Applications.
Capacitances from 35 μF to 200 μF .
Rated Voltages from 700 VDC to 1500 VDC.

Special Features

- Very high volume/capacitance ratio
- Self-healing properties
- With cylindrical plastic case and screw fixing
- Dry construction without electrolyte or oil
- No internal fuse required
- Negative capacitance change versus temperature
- Very low dielectric absorption
- According to RoHS 2011/65/EU
- Customer-specific capacitances or voltages on request

Electrical Data

Capacitance range: 35 μF to 200 μF
Rated voltages: 700 VDC, 900 VDC, 1100 VDC, 1300 VDC, 1500 VDC
Capacitance tolerances: $\pm 20\%$, $\pm 10\%$, ($\pm 5\%$ available subject to special enquiry)
Operating temperature range: -40°C to $+85^\circ\text{C}$
Insulation resistance at $+20^\circ\text{C}$: ≥ 5000 sec ($\text{M}\Omega \times \mu\text{F}$)
Measuring voltage: 100 V/1 min.

Dielectric loss factor

$\tan \delta_0: 2 \times 10^{-4}$

Test voltage: $1.5 U_r$, 2sec

Dielectric absorption:

0.05 %

Reliability:

Operational life > 100 000 hours

Failure rate < 50 fit (hot spot $\leq 70^\circ\text{C}$)

Typical Applications

DC capacitors with high capacitances for applications in power electronics also at non-sinusoidal voltages and currents e.g. in

- Wind power systems
- Inverters

Mounting Recommendation

Excessive mechanical strain, e.g. pressure or shock onto the capacitor body, is to be avoided during mounting and usage of the capacitors.

Packing

Transport-safe packing in cardboard boxes.

For further details and graphs please refer to Technical Information.

Construction

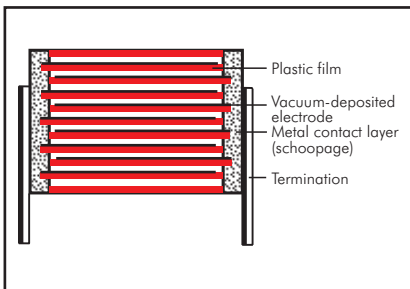
Dielectric:

Polypropylene (PP) film

Capacitor electrodes:

Vacuum-deposited

Internal construction:



Encapsulation:

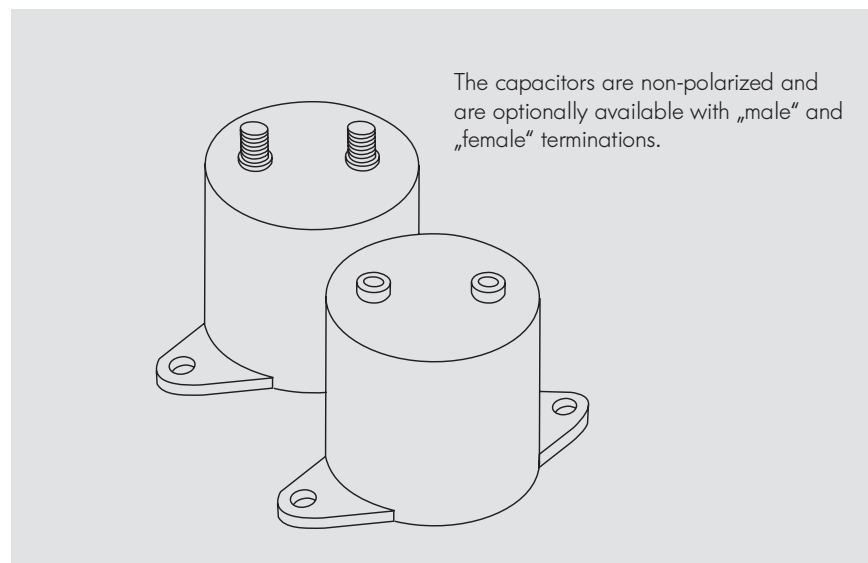
Solvent-resistant, flame-retardant plastic case with PU-sealing and screw fixing, UL 94 V-0

Terminations:

Screw connection (male or female).

Marking:

Colour: Black. Marking: Gold.



The capacitors are non-polarized and are optionally available with „male“ and „female“ terminations.

Continuation

General Data

U_R	C_N	D x L mm	I_{rms} (1 kHz)* A	ESR (1 kHz)* m Ω	R_{th} K/W	L_e nH	Approx. weight g	Part number
700 VDC	150 μ F	84.5 x 51	100	0.9	7.0	< 32	430	DCP3K06150G100_-----
	200 "	84.5 x 64	100	1.0	8.5	< 40	510	DCP3K06200G200_-----
900 VDC	100 μ F	84.5 x 51	90	1.0	7.2	< 30	430	DCP3N06100G100_-----
	140 "	84.5 x 64	100	1.3	8.5	< 40	510	DCP3N06140G200_-----
1100 VDC	70 μ F	84.5 x 51	100	1.1	7.0	< 32	430	DCP3P05700G100_-----
	90 "	84.5 x 64	100	1.2	8.5	< 40	510	DCP3P05900G200_-----
1300 VDC	50 μ F	84.5 x 51	60	1.7	7.0	< 35	430	DCP3R25500G100_-----
	70 "	84.5 x 64	50	2.1	8.5	< 40	510	DCP3R25700G200_-----
1500 VDC	35 μ F	84.5 x 51	60	1.7	7.0	< 35	430	DCP3S05350G100_-----
	50 "	84.5 x 64	70	1.9	8.5	< 40	510	DCP3S05500G200_-----

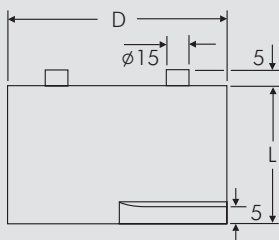
Contacts can handle: peak currents \hat{I} up to 5 kA
surge currents I_S up to 20 kA

Customer-specific capacitances or voltages on request

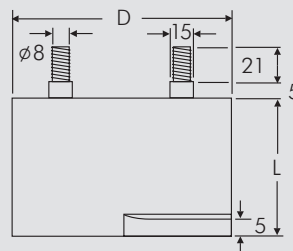
* General guide

Dims. in mm.

female

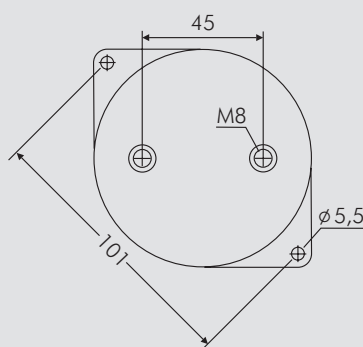
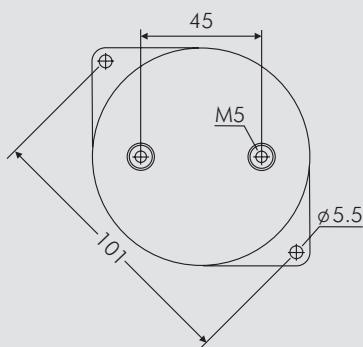


male



Part number completion:

Tolerance: 20 % = M
10 % = K
5 % = J
Packing: bulk = S
Connection: male = 0M
female = 0F



D	L
84.5	51
84.5	64

Rights reserved to amend design data without prior notification.



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			2.5x6.5x7.2		-	20%	bulk	6-2			
Type description:				Rated voltage:		Capacitance:			Size:		Tolerance:			Packing:			
SMD-PET = SMDT				50 VDC = B0		22 pF = 0022			4.8x3.3x3 Size 1812 = KA		±20% = M			Packing: 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 ...			
SMD-PEN = SMDN				63 VDC = C0		47 pF = 0047			4.8x3.3x4 Size 1812 = KB		±10% = K						
SMD-PPS = SMDI				100 VDC = D0		100 pF = 0100			5.7x5.1x3.5 Size 2220 = QA		±5% = J						
FKP 02 = FKPO				250 VDC = F0		150 pF = 0150			5.7x5.1x4.5 Size 2220 = QB		±2.5% = H						
MKS 02 = MKS0				400 VDC = G0		220 pF = 0220			7.2x6.1x3 Size 2824 = TA		±1% = E						
FKS 2 = FKS2				450 VDC = H0		330 pF = 0330			7.2x6.1x5 Size 2824 = TB		...						
FKP 2 = FKP2				520 VDC = H2		470 pF = 0470			10.2x7.6x5 Size 4030 = VA								
FKS 3 = FKS3				600 VDC = I0		680 pF = 0680			12.7x10.2x6 Size 5040 = XA								
FKP 3 = FKP 3				630 VDC = J0		1000 pF = 1100			15.3x13.7x7 Size 6054 = YA								
MKS 2 = MKS2				700 VDC = K0		1500 pF = 1150			2.5x7x4.6 PCM 2.5 = 0B								
MKP 2 = MKP2				800 VDC = L0		2200 pF = 1220			3x7.5x4.6 PCM 2.5 = 0C								
MKS 4 = MKS4				850 VDC = M0		3300 pF = 1330			2.5x6.5x7.2 PCM 5 = 1A								
MKP 4C = MKPC				900 VDC = N0		4700 pF = 1470			3x7.5x7.2 PCM 5 = 1B								
MKP 4 = MKP4				1000 VDC = O1		6800 pF = 1680			2.5x7x10 PCM 7.5 = 2A								
MKP 10 = MKP1				1100 VDC = P0		0.01 µF = 2100			3x8.5x10 PCM 7.5 = 2B								
FKP 1 = FKP1				1200 VDC = Q0		0.022 µF = 2220			3x9x13 PCM 10 = 3A								
MKP-X2 = MKX2				1250 VDC = R0		0.047 µF = 2470			4x9x13 PCM 10 = 3C								
MKP-X1 R = MKX1				1500 VDC = S0		0.1 µF = 3100			5x11x18 PCM 15 = 4B								
MKP-Y2 = MKY2				1600 VDC = T0		0.22 µF = 3220			6x12.5x18 PCM 15 = 4C								
MP 3-X2 = MPX2				2000 VDC = U0		0.47 µF = 3470			5x14x26.5 PCM 22.5 = 5A								
MP 3-X1 = MPX1				2500 VDC = V0		1 µF = 4100			6x15x26.5 PCM 22.5 = 5B								
MP 3-Y2 = MPY2				3000 VDC = W0		2.2 µF = 4220			9x19x31.5 PCM 27.5 = 6A								
MP 3R-Y2 = MPRY				4000 VDC = X0		4.7 µF = 4470			11x21x31.5 PCM 27.5 = 6B								
MKP 4F = MKPF				6000 VDC = Y0		10 µF = 5100			9x19x41.5 PCM 37.5 = 7A								
Snubber MKP = SNMP				250 VAC = 0W		22 µF = 5220			11x22x41.5 PCM 37.5 = 7B								
Snubber FKP = SNFP				275 VAC = 1W		47 µF = 5470			19x31x56 PCM 48.5 = 8D								
GTO MKP = GTOM				300 VAC = 2W		100 µF = 6100			25x45x57 PCM 52.5 = 9D								
DC-LINK MKP 3 = DCP3				305 VAC = AW		220 µF = 6220			...								
DC-LINK MKP 4 = DCP4				350 VAC = BW		1000 µF = 7100											
DC-LINK MKP 4S = DCP5				440 VAC = 4W		1500 µF = 7150											
DC-LINK MKP 5 = DCP5				500 VAC = 5W		...											
DC-LINK MKP 6 = DCP6				...													
DC-LINK HC = DCHC									Version code:								
DC-LINK HY = DCHY									Standard = 00								
									Version A1 = 1A								
									Version A1.1.1 = 1B								
									Version A2 = 2A								
									...								
											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.