

## Metallized Polypropylene (PP) - Capacitors in Cylindrical Case for DC-Link Applications. Capacitances from 16 $\mu\text{F}$ to 260 $\mu\text{F}$ . Rated Voltages from 500 VDC to 1300 VDC.

### Special Features

- Very high volume/capacitance ratio
- Self-healing properties
- With cylindrical plastic case for PCB mounting
- 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

### 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

### Construction

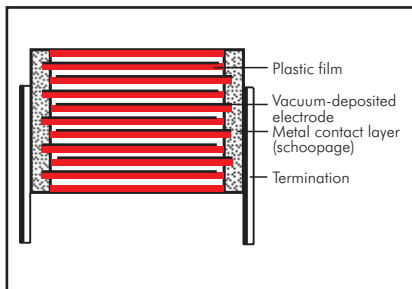
#### Dielectric:

Polypropylene (PP) film

#### Capacitor electrodes:

Vacuum-deposited

#### Internal construction:



#### Encapsulation:

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

#### Terminations:

Tinned wire.

#### Marking:

Colour: Grey. Marking: Black on silver label.

### Electrical Data

**Capacitance range:** 16  $\mu\text{F}$  to 260  $\mu\text{F}$

**Rated voltages:** 500 VDC, 700 VDC, 900 VDC, 1100 VDC, 1300 VDC

**Capacitance tolerances:**  $\pm 20\%$ ,  $\pm 10\%$  ( $\pm 5\%$  available subject to special enquiry)

**Operating temperature range:**

$-40^\circ\text{C}$  to  $+85^\circ\text{C}$

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

$\geq 5000$  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  $\leq 70^\circ\text{C}$ )

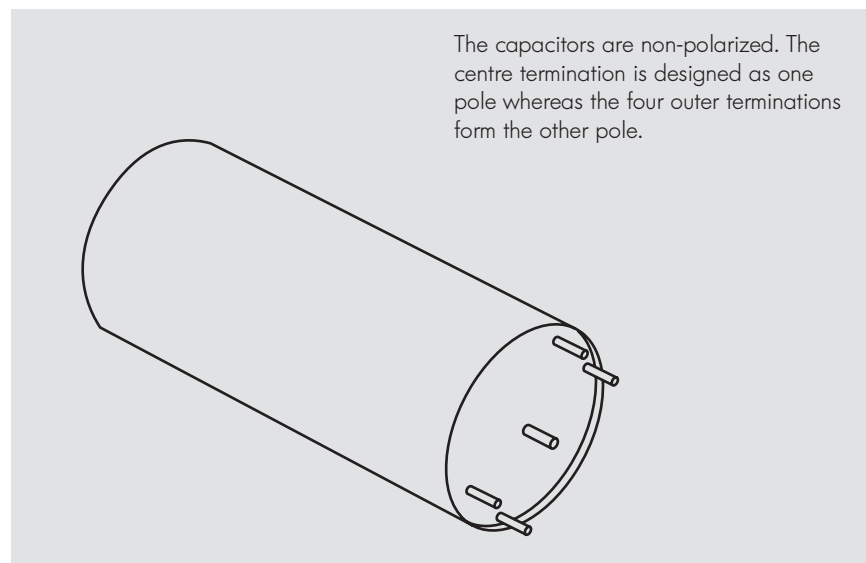
### Mounting Recommendation

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

### Packing

Transportation-safe packing in cardboard boxes.

For further details and graphs please refer to Technical Information.



## Continuation

### General Data

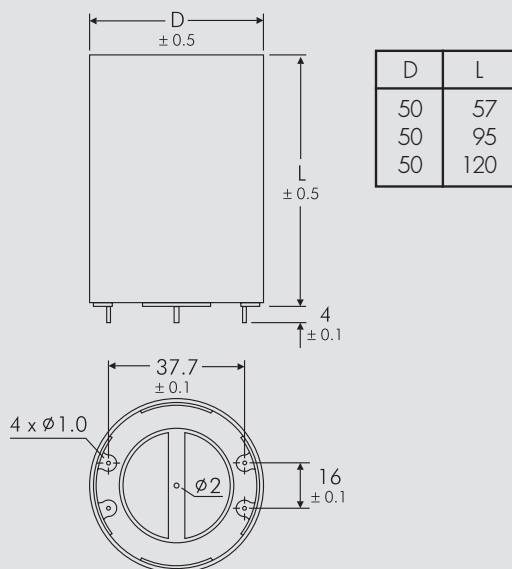
$U_R$	$C_N$	D x L mm	$I_{rms}$ (1 kHz)* A	ESR (1 kHz)* m $\Omega$	$R_{th}$ K/W	$L_e$ nH	Approx. weight g	Part number
500 VDC	85 $\mu$ F	50 x 57	35	2.0	11.0	< 45	120	DCP5H15850D000_
	195 "	50 x 95	32	3.4	7.5	< 65	190	DCP5H16195D100_
	260 "	50 x 120	30	5.2	6.0	< 85	220	DCP5H16260D200_
700 VDC	59 $\mu$ F	50 x 57	30	1.9	11.0	< 45	120	DCP5K05590D000_
	143 "	50 x 95	32	3.5	7.5	< 65	190	DCP5K06143D100_
	190 "	50 x 120	25	4.7	6.0	< 85	220	DCP5K06190D200_
900 VDC	53 $\mu$ F	50 x 57	35	2.3	11.0	< 45	120	DCP5N05530D000_
	114 "	50 x 95	32	4.2	7.5	< 65	190	DCP5N06114D100_
	158 "	50 x 120	30	6.0	6.0	< 85	220	DCP5N06158D200_
1100 VDC	30 $\mu$ F	50 x 57	20	2.8	11.0	< 45	120	DCP5P05300D000_
	72 "	50 x 95	25	4.5	7.5	< 65	190	DCP5P05720D100_
	100 "	50 x 120	25	6.1	6.0	< 85	220	DCP5P06100D200_
1300 VDC	16 $\mu$ F	50 x 57	20	3.0	11.0	< 45	120	DCP5R25160D000_
	40 "	50 x 95	25	5.7	7.5	< 65	190	DCP5R25400D100_
	55 "	50 x 120	25	7.7	6.0	< 85	220	DCP5R25550D200_

Contacts can handle: peak currents  $\hat{I}$  up to 1.1 kA  
surge currents  $I_S$  up to 3.5 kA

Customer-specific capacitances or voltages on request

\* General guide

Dims. in mm.



Part number completion:

Tolerance: 20 % = M  
10 % = K  
5 % = J  
Packing: bulk = S  
Pin length: none = 00

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		
<b>Type description:</b>				<b>Rated voltage:</b>		<b>Capacitance:</b>			<b>Size:</b>		<b>Tolerance:</b>		<b>Packing:</b>				
SMD-PET = SMDT				50 VDC = B0		22 pF = 0022			4.8x3.3x3 Size 1812 = KA		±20% = M		AMMO H16.5 340x340 = A				
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		AMMO H16.5 490x370 = B				
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		AMMO H18.5 340x340 = C				
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		REEL H16.5 360 = F		AMMO H18.5 490x370 = D				
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		REEL H16.5 500 = H		AMMO H18.5 490x370 = D				
MKS 2 = MKS2				700 VDC = K0		1500 pF = 1150			2.5x7x4.6 PCM 2.5 = 0B		REEL H18.5 360 = I						
MKP 2 = MKP2				800 VDC = L0		2200 pF = 1220			3x7.5x4.6 PCM 2.5 = 0C		REEL H18.5 500 = J		ROLL H16.5 = N				
MKS 4 = MKS4				850 VDC = M0		3300 pF = 1330			2.5x6.5x7.2 PCM 5 = 1A		ROLL H18.5 = O						
MKP 4C = MKPC				900 VDC = N0		4700 pF = 1470			3x7.5x7.2 PCM 5 = 1B		BLISTER W12 180 = P		BLISTER W16 330 = R				
MKP 4 = MKP4				1000 VDC = O1		6800 pF = 1680			2.5x7x10 PCM 7.5 = 2A		BLISTER W24 330 = T						
MKP 10 = MKP1				1100 VDC = P0		0.01 µF = 2100			3x8.5x10 PCM 7.5 = 2B		Bulk/TPS Standard = S		...				
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		...		Pin length (untaped)				
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		Pin length (taped)		3.5 ±0.5 = C9				
MP 3-X2 = MPX2				2000 VDC = U0		0.47 µF = 3470			5x14x26.5 PCM 22.5 = 5A		6-2 = SD						
MP 3-X1 = MPX1				2500 VDC = V0		1 µF = 4100			6x15x26.5 PCM 22.5 = 5B		16 ±1 = P1		...				
MP 3-Y2 = MPY2				3000 VDC = W0		2.2 µF = 4220			9x19x31.5 PCM 27.5 = 6A		none = 00						
MP 3R-Y2 = MPRY				4000 VDC = X0		4.7 µF = 4470			11x21x31.5 PCM 27.5 = 6B		...		Pin length (taped)				
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		...		Pin length (taped)				
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		...		Pin length (taped)				
DC-LINK MKP 3 = DCP3				305 VAC = AW		220 µF = 6220			...								
DC-LINK MKP 4 = DCP4				350 VAC = BW		1000 µF = 7100			...		...		Pin length (taped)				
DC-LINK MKP 4S = DCP5				440 VAC = 4W		1500 µF = 7150			...								
DC-LINK MKP 5 = DCP5				500 VAC = 5W		...			...		...		Pin length (taped)				
DC-LINK MKP 6 = DCP6				...		...			...								
DC-LINK HC = DCHC				...		...			...		...		Pin length (taped)				
DC-LINK HY = DCHY				...		...			...								

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.