

Metallized Polypropylene (PP) - Capacitors in Cylindrical Case for DC-Link Applications

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 2002/95/EC

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

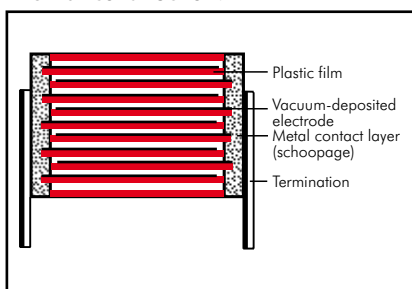
Dielectric:

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 μF to 260 μF

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°C to $+85^\circ\text{C}$

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

$\geq 5000 \text{ sec (M}\Omega \times \mu\text{F)}$

(mean value: 20 000 sec)

Measuring voltage: 100 V/1 min.

Dielectric loss factor $\tan \delta_0$:
 2×10^{-4}

Test voltage: $1.5 U_r$, 2sec

Dielectric absorption:

0.05 %

Reliability:

Operational life $> 100\,000$ hours

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

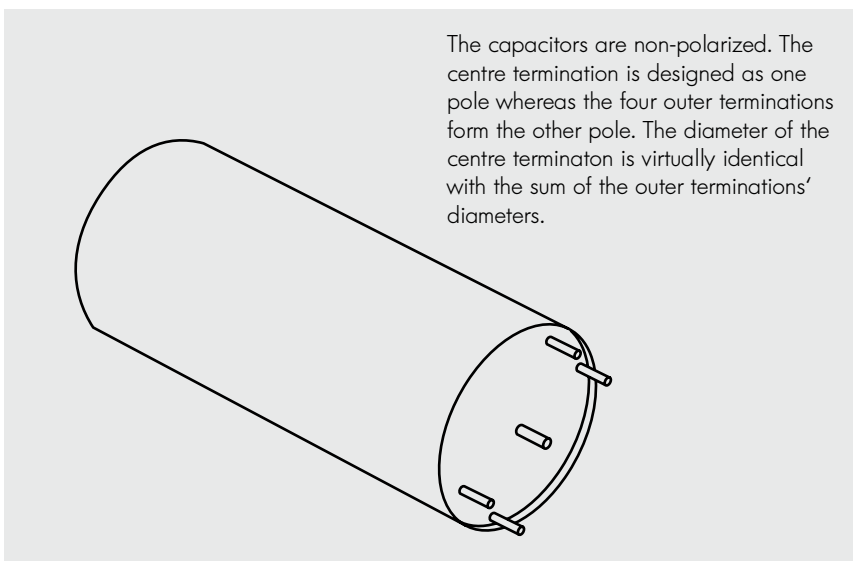
Mounting Recommendation

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 Ω	R_{th} K/W	L_e nH	Approx. weight g	Part number
500 VDC	85 μ 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 μ 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 μ 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 μ 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 μ 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_

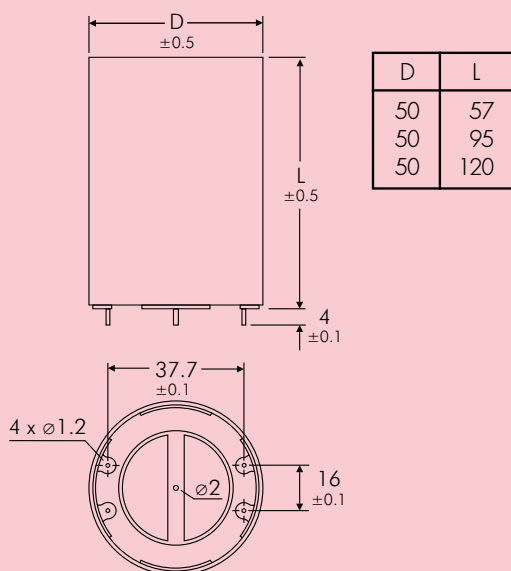
Contacts can handle: peak currents $\hat{I}$ up to 1.1 kA
surge currents I_S up to 3.5 kA

* General guide

Dims. in mm.

Part number completion:

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



Rights reserved to amend design data without prior notification.

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: Special features (e.g. Snubber versions)
- Field 15: Capacitance tolerance
- Field 16: Packing
- Field 17 - 18: Lead 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:			
SMD-PET = SMDT				2.5 VDC = A1		22 pF = 0022				4.8x3.3x3 Size 1812 = KA				20% = M			
SMD-PPS = SMDI				4 VDC = A2		47 pF = 0047				4.8x3.3x4 Size 1812 = KB				10% = K			
FKP 02 = FKP0				14 VDC = A3		100 pF = 0100				5.7x5.1x3.5 Size 2220 = QA				5% = J			
MKS 02 = MKS0				28 VDC = A4		150 pF = 0150				5.7x5.1x4.5 Size 2220 = QB				2.5% = H			
FKS 2 = FKS2				40 VDC = A5		220 pF = 0220				7.2x6.1x3 Size 2824 = TA				1% = E			
FKP 2 = FKP2				5 VDC = A6		330 pF = 0330				7.2x6.1x5 Size 2824 = TB				...			
MKS 2 = MKS2				50 VDC = B0		470 pF = 0470				10.2x7.6x5 Size 4030 = VA				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 Standard = S TPS Standard = Y ...			
MKP 2 = MKP2				63 VDC = C0		680 pF = 0680				12.7x10.2x6 Size 5040 = XA							
FKS 3 = FKS3				100 VDC = D0		1000 pF = 1100				15.3x13.7x7 Size 6054 = YA							
FKP 3 = FKP3				160 VDC = E0		1500 pF = 1150				2.5x7x4.6 PCM 2.5 = 0B							
MKS 4 = MKS4				250 VDC = F0		2200 pF = 1220				3x7.5x4.6 PCM 2.5 = 0C							
MKP 4 = MKP4				400 VDC = G0		3300 pF = 1330				2.5x6.5x7.2 PCM 5 = 1A							
MKP 10 = MKP1				450 VDC = H0		4700 pF = 1470				3x7.5x7.2 PCM 5 = 1B							
FKP 4 = FKP4				600 VDC = I0		6800 pF = 1680				2.5x7x10 PCM 7.5 = 2A							
FKP 1 = FKP1				630 VDC = J0		0.01 µF = 2100				3x8.5x10 PCM 7.5 = 2B							
MKP-X2 = MKX2				700 VDC = K0		0.022 µF = 2220				3x9x13 PCM 10 = 3A							
MKP-X2 R = MKXR				800 VDC = L0		0.047 µF = 2470				4x9x13 PCM 10 = 3C							
MKP-Y2 = MKY2				850 VDC = M0		0.1 µF = 3100				5x11x18 PCM 15 = 4B							
MP 3-X2 = MPX2				900 VDC = N0		0.22 µF = 3220				6x12.5x18 PCM 15 = 4C							
MP 3-X1 = MPX1				1000 VDC = O1		0.47 µF = 3470				5x14x26.5 PCM 22.5 = 5A							
MP 3-Y2 = MPY2				1100 VDC = P0		1 µF = 4100				6x15x26.5 PCM 22.5 = 5B							
MP 3R-Y2 = MPRY				1200 VDC = Q0		2.2 µF = 4220				9x19x31.5 PCM 27.5 = 6A							
Snubber MKP = SNMP				1250 VDC = R0		4.7 µF = 4470				11x21x31.5 PCM 27.5 = 6B							
Snubber FKP = SNFP				1500 VDC = S0		10 µF = 5100				9x19x41.5 PCM 37.5 = 7A							
GTO MKP = GTOM				1600 VDC = T0		22 µF = 5220				11x22x41.5 PCM 37.5 = 7B							
DC-LINK MKP 4 = DCP4				2000 VDC = U0		47 µF = 5470				94x49x182 DCH_ = H0							
DC-LINK MKP 5 = DCP5				2500 VDC = V0		100 µF = 6100				94x77x182 DCH_ = H1							
DC-LINK MKP 6 = DCP6				3000 VDC = W0		220 µF = 6220				...							
DC-LINK HC = DCH_				4000 VDC = X0		1 F = A010											
SuperCap C = SCSC				6000 VDC = Y0		2.5 F = A025											
SuperCap MC = SCMC				250 VAC = 0W		50 F = A500				Special features:				Lead length (untaped) 3.5 ±0.5 = C9 6 -2 = SD 16 ±1 = P1 ...			
SuperCap R = SCSR				275 VAC = 1W		100 F = B100				Standard = 00							
SuperCap MR = SCMR				300 VAC = 2W		110 F = B110				Version A1 = 1A							
				400 VAC = 3W		600 F = B600				Version A1.1.1 = 1B							
				440 VAC = 4W		1200 F = C120				Version A1.2 = 1C							
				500 VAC = 5W		...				...							