

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

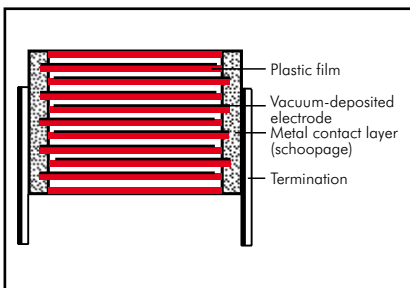
Dielectric:

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

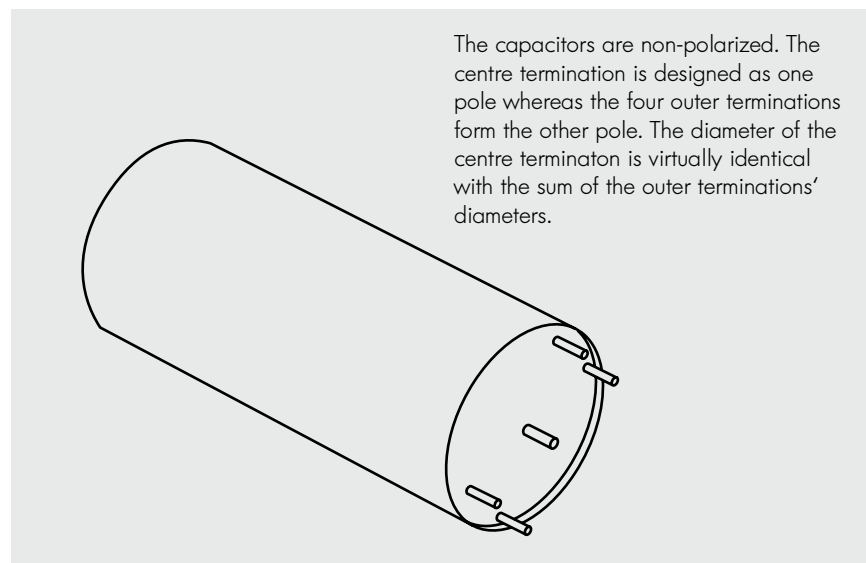
Mounting Recommendation

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.



The capacitors are non-polarized. The centre termination is designed as one pole whereas the four outer terminations form the other pole. The diameter of the centre termination is virtually identical with the sum of the outer terminations' diameters.

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_____

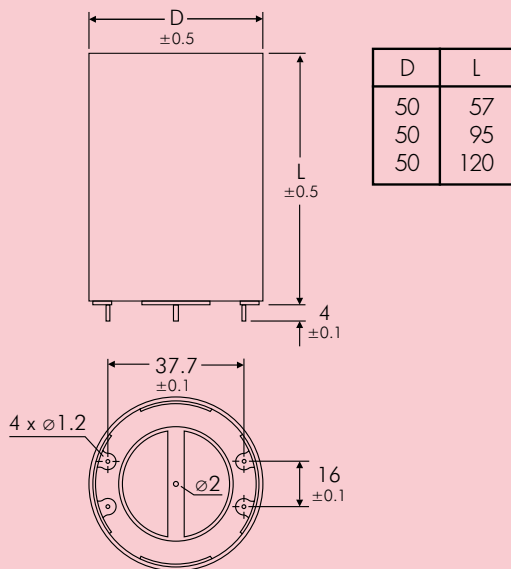
Contacts can handle: peak currents \hat{I} up to 1.1 kA
surge currents I_S up to 3.5 kA

* General guide

Dims. in mm.

Part number completion:

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



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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: SMD-PET = SMDT SMD-PPS = SMDI FKP 02 = FKP0 MKS 02 = MKS0 FKS 2 = FKS2 FKP 2 = FKP2 MKS 2 = MKS2 MKP 2 = MKP2 FKS 3 = FKS3 FKP 3 = FKP3 MKS 4 = MKS4 MKP 4 = MKP4 MKP 10 = MKP1 FKP 4 = FKP4 FKP 1 = FKP1 MKP-X2 = MKX2 MKP-X2 R = MKXR MKP-Y2 = MKY2 MP 3-X2 = MPX2 MP 3-X1 = MPX1 MP 3-Y2 = MPY2 MP 3R-Y2 = MPRY Snubber MKP = SNMP Snubber FKP = SNFP GTO MKP = GTOM DC-LINK MKP 4 = DCP4 DC-LINK MKP 5 = DCP5 DC-LINK MKP 6 = DCP6 DC-LINK HC = DCH_ SuperCap C = SCSC SuperCap MC = SCMC SuperCap R = SCSR SuperCap MR = SCMR	Rated voltage: 2.5 VDC = A1 4 VDC = A2 14 VDC = A3 28 VDC = A4 40 VDC = A5 5 VDC = A6 50 VDC = B0 63 VDC = C0 100 VDC = D0 160 VDC = E0 250 VDC = F0 400 VDC = G0 450 VDC = H0 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 400 VAC = 3W 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 1 F = A010 2.5 F = A025 50 F = A500 100 F = B100 110 F = B110 600 F = B600 1200 F = C120 ...	Size: 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 94x49x182 DCH_ = H0 94x77x182 DCH_ = H1 ...	Tolerance: 20% = M 10% = K 5% = J 2.5% = H 1% = E ...	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 ...	Lead length (untaped) 3.5 ±0.5 = C9 6-2 = SD 16 ±1 = P1 ...
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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.