WIMA DC-LINK MKP 5 NEW

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**

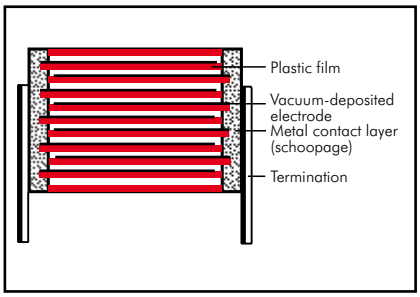
Typical Applications

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: ±20%, ±10% (±5% available subject to special enquiry)
Operating temperature range:
–40° C to +85° C
Insulation resistance at +20° C:
⩾ 5 000 sec (MΩ x µF)
(mean value: 20 000 sec)
Measuring voltage: 100 V/1 min.

Dielectric loss factor tan δ_0:
2×10^{-4}
Test voltage: 1.5 U_r, 2sec
Dielectric absorption:
0.05 %
Reliability:
Operational life > 100 000 hours
Failure rate < 50 fit (hot spot ⩽ 70° C)

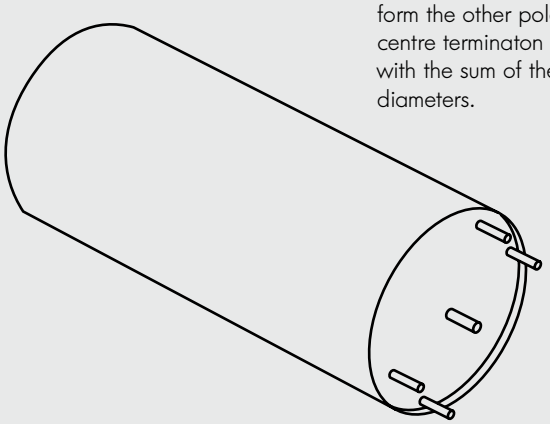
Mounting Recommendation

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 terminaton is virtually identical with the sum of the outer terminations' diameters.

Continuation

General Data

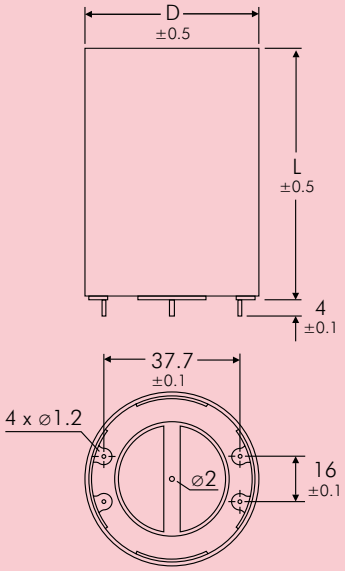
U_R	C_N	D x L mm	I_{rms} (1 kHz)* A	ESR (1 kHz)* mΩ	R_{th} K/W	L_e nH	Approx. weight g	Part number
500 VDC	85 µF	50 x 57	35	2.0	11.0	45	120	DCP5H15850D000____
	195 „	50 x 95	32	3.4	7.5	65	190	DCP5H16195D100____
	260 „	50 x 120	30	5.2	6.0	85	220	DCP5H16260D200____
700 VDC	59 µF	50 x 57	30	1.9	11.0	45	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 µF	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 µF	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 µF	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



D	L
50	57
50	95
50	120

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: 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				2.5 x 6.5 x 7.2		-		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:

4.8 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
94 x 49 x 182 DCH_	= H0
94 x 77 x 182 DCH_	= H1
...	

Special features:

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

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 Standard	= S
TPS Standard	= Y
...	

Lead length (untaped)

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

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.