WIMA DC-LINK MKP 6 NEW

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

Special Features

- **Very high volume/capacitance ratio**
- **Self-healing properties**
- **With cylindrical aluminium case for bus bar 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**

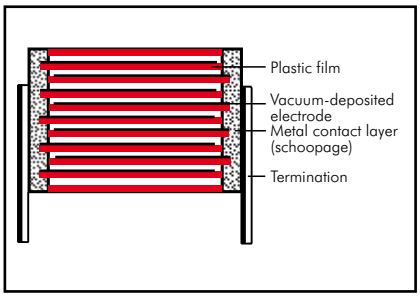
Typical Applications

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:
Aluminium case with PU-sealing, UL 94 V-0
Terminations:
Screw connection (male or female), screw bolt M12 x 16.
Marking:
Colour: Metallic. Marking: Black on silver label.

Electrical Data

Capacitance range: 165 µF to 1560 µF
Rated voltages: 600 VDC, 700 VDC, 900 VDC,1100 VDC, 1300 VDC, 1500 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

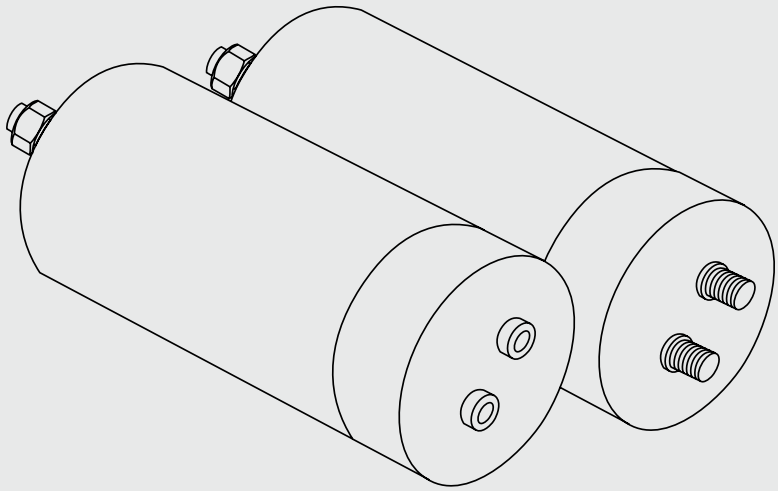
Excessive mechanical strain, e.g. pressure or shock onto the capacitor body, is to be avoided during mounting and usage of the capacitors.

Packing

Transportation-safe packing in cardboard boxes.

For further details and graphs please refer to Technical Information.

The capacitors are non-polarized and are optionally available with „male" and „female" terminations. The earth bolt is electrically inactive and serves for fixing and/or earthing of the metal case.



WIMA DC-LINK MKP 6

Continuation

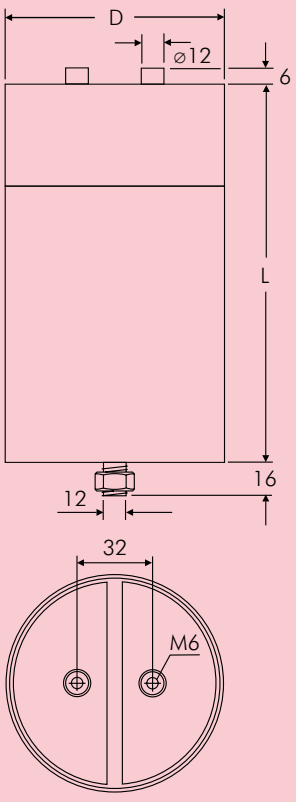
General Data

U_R	C_N	D x L mm	I_{rms} (max.)* A	ESR (1 kHz)* mΩ	R_{th} K/W	L_e nH	Approx. weight g	Part number
600 VDC	780 µF	85 x 120	30	1.6	5.3	⩽ 60	700	DCP6I06780E000_ _ _ _
	1000 „	85 x 132	35	1.7	4.2	⩽ 60	850	DCP6I07100E100_ _ _ _
	1560 „	85 x 210	60	1.3	2.7	⩽ 60	1400	DCP6I07156E200_ _ _ _
700 VDC	585 µF	85 x 120	30	1.7	5.3	⩽ 60	700	DCP6K06585E000_ _ _ _
	750 „	85 x 132	35	1.9	4.2	⩽ 60	850	DCP6K06750E100_ _ _ _
	1170 „	85 x 210	60	1.3	2.7	⩽ 60	1400	DCP6K07117E200_ _ _ _
900 VDC	480 µF	85 x 120	30	1.7	5.3	⩽ 60	700	DCP6N06480E000_ _ _ _
	550 „	85 x 132	36	1.8	4.2	⩽ 60	850	DCP6N06550E100_ _ _ _
	900 „	85 x 210	60	1.5	2.7	⩽ 60	1400	DCP6N06900E200_ _ _ _
1100 VDC	325 µF	85 x 120	30	1.8	5.3	⩽ 60	700	DCP6P06325E000_ _ _ _
	420 „	85 x 132	40	1.9	4.2	⩽ 60	850	DCP6P06420E100_ _ _ _
	650 „	85 x 210	60	1.3	2.7	⩽ 60	1400	DCP6P06650E200_ _ _ _
1300 VDC	215 µF	85 x 120	30	1.8	5.3	⩽ 60	700	DCP6R26215E000_ _ _ _
	270 „	85 x 132	40	2.4	4.2	⩽ 60	850	DCP6R26270E100_ _ _ _
	430 „	85 x 210	60	1.5	2.7	⩽ 60	1400	DCP6R26430E200_ _ _ _
1500 VDC	165 µF	85 x 120	30	2.2	5.3	⩽ 60	700	DCP6S06165E000_ _ _ _
	210 „	85 x 132	40	2.5	4.2	⩽ 60	850	DCP6S06210E100_ _ _ _
	330 „	85 x 210	60	1.7	2.7	⩽ 60	1400	DCP6S06330E200_ _ _ _

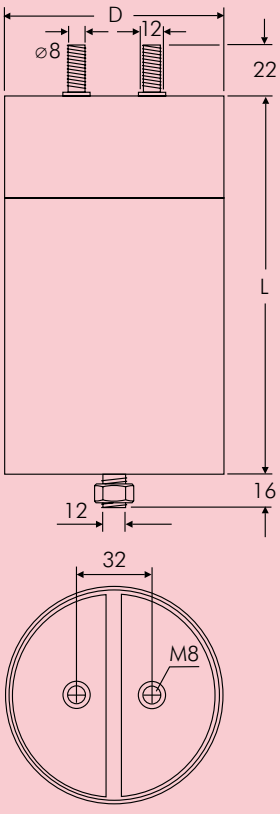
Contacts can handle: peak currents $\hat{I}$ up to 5 kA
surge currents I_S up to 20 kA

* General guide

female



male



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

D	L
85	120
85	132
85	210

Dims. in mm.

Customized capacitances or voltages on request.

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: 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.