# WIMA DC-LINK MKP 5

## Metallized Polypropylene (PP) - Capacitors in Cylindrical Case for DC-Link Applications. Capacitances from 16 µF to 260 µF. 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**

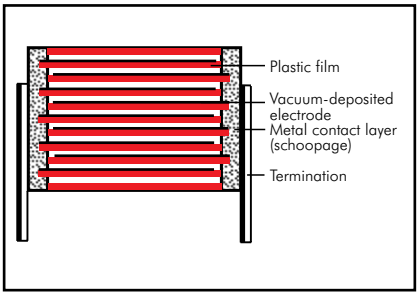
### Typical Applications

**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 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 $\delta_0$:
$2 \times 10^{-4}$
**Test voltage:** 1.5 $U_r$, 2sec
**Dielectric absorption:**
0.05 %
**Reliability:**
Operational life > 100 000 hours
Failure rate < 50 fit (hot spot ⩽ 70° C)

### Mounting Recommendation

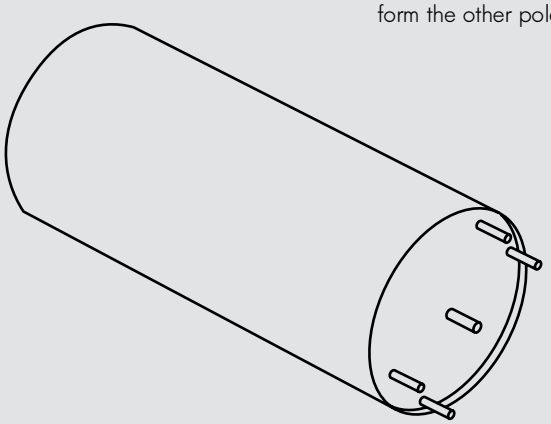
Excessive mechanical strain, e.g. pressure or shock onto the capacitor body, is to be avoided during mounting and usage of the capacitors.

### 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.



## Continuation

### General Data

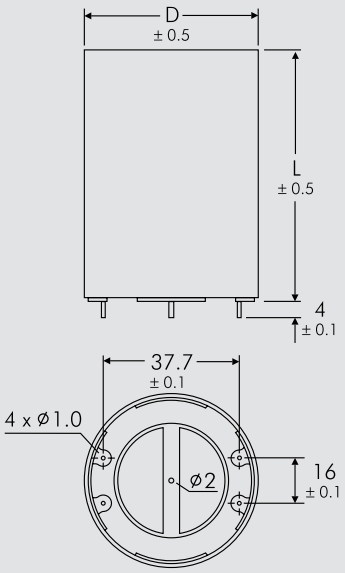
| $U_R$ | $C_N$ | D x L mm | $I_{rms}$ (1 kHz)* A | ESR (1 kHz)* mΩ | $R_{th}$ K/W | $L_e$ nH | Approx. weight g | Part number |
|---|---|---|---|---|---|---|---|---|
| 500 VDC | 85 µF | 50 x 57 | 35 | 2.0 | 11.0 | < 45 | 120 | DCP5H15850D000_ _ _ _ |
| | 195 „ | 50 x 95 | 32 | 3.4 | 7.5 | < 65 | 190 | 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

Customer-specific capacitances or voltages on request

* General guide

Dims. in mm.




| D | L |
|---|---|
| 50 | 57 |
| 50 | 95 |
| 50 | 120 |

| 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 | | | | 2.5 x 6.5 x 7.2 | | - | | 20% | bulk | 6 -2 | |

**Type description:**

| | |
|---|---|
| SMD-PET | = SMDT |
| SMD-PEN | = SMDN |
| SMD-PPS | = SMDI |
| FKP 02 | = FKP0 |
| MKS 02 | = MKS0 |
| FKS 2 | = FKS2 |
| FKP 2 | = FKP2 |
| FKS 3 | = FKS3 |
| FKP 3 | = FKP 3 |
| MKS 2 | = MKS2 |
| MKP 2 | = MKP2 |
| MKS 4 | = MKS4 |
| MKP 4C | = MKPC |
| MKP 4 | = MKP4 |
| MKP 10 | = MKP1 |
| FKP 1 | = FKP1 |
| MKP-X2 | = MKX2 |
| MKP-X1 R | = MKX1 |
| MKP-Y2 | = MKY2 |
| MP 3-X2 | = MPX2 |
| MP 3-X1 | = MPX1 |
| MP 3-Y2 | = MPY2 |
| MP 3R-Y2 | = MPRY |
| MKP 4F | = MKPF |
| Snubber MKP | = SNMP |
| Snubber FKP | = SNFP |
| GTO MKP | = GTOM |
| DC-LINK MKP 3 | = DCP3 |
| DC-LINK MKP 4 | = DCP4 |
| DC-LINK MKP 4S | = DCPS |
| DC-LINK MKP 5 | = DCP5 |
| DC-LINK MKP 6 | = DCP6 |
| DC-LINK HC | = DCHC |
| DC-LINK HY | = DCHY |

**Rated voltage:**

| | |
|---|---|
| 50 VDC | = B0 |
| 63 VDC | = C0 |
| 100 VDC | = D0 |
| 250 VDC | = F0 |
| 400 VDC | = G0 |
| 450 VDC | = H0 |
| 520 VDC | = H2 |
| 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 |
| 305 VAC | = AW |
| 350 VAC | = BW |
| 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 |
| 1000 µF | = 7100 |
| 1500 µF | = 7150 |
| ... | |

**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 |
| 19 x 31 x 56 PCM 48.5 | = 8D |
| 25 x 45 x 57 PCM 52.5 | = 9D |
| ... | |

**Version code:**

| | |
|---|---|
| Standard | = 00 |
| Version A1 | = 1A |
| Version A1.1.1 | = 1B |
| Version A2 | = 2A |
| ... | |

**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/TPS Standard | = S |
| ... | |

**Pin length (untaped)**

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

**Pin length (taped)**

| | |
|---|---|
| none | = 00 |

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.

# Unikeyic Electronics

Global Electronic Components Distributor

Click to view pricing, inventory, delivery, and lifecycle information:

## WIMA:

FKP1T031007E00JSSD MKP1J024705B00JSSD MKP4O123304C00KSSD FKP2O100471D00JSSD MKP1F044706J00KSSD MKP4O126804F00KSSD MKP1O121004B00KSSD FKP4G021004B00JSSD FKS2D013301A00JSSD FKS2D016801A00KSSD MKP1G032205D00JSSD MKP4F034704D00KSSD MKP4F041005D00KSSD MKX2AW34705F00KSSD FKP1Y022207E00KSSD FKS2D011501A00KSSD MKP4J041506F00KSSD SMDTD02100QA00KP00 SMDTD02470QA00KP00 MKP1J031505F00KSSD FKP2D021001I00HC00 MKP2D031001F00KI00 MKP2J013301B00KSSD MKP4F051007F00KSSD MKS2D024701A00JSSD MKS4G031002E00KSSD DCP4G064009JD4KSSD MKS0C021500B00KSSD MKS4C042204C00KSSD MKS4D041002F00KSSD