

## Metallized Polypropylene (PP) - Capacitors for DC-Link Applications

### Special Features

- Very high volume/capacitance ratio
- Self-healing, internal safety disconnect
- Safe contact configurations by screwable plates
- Dry construction without electrolyte or oil
- Very low dissipation factor
- Negative capacitance change versus temperature
- Very low dielectric absorption
- According to RoHS 2011/65/EU
- Customer-specific tabs, capacitances or voltages on request
- 105° C version on request

### Typical Applications

As intermediate circuit capacitor e. g. in high power converter technology

### Construction

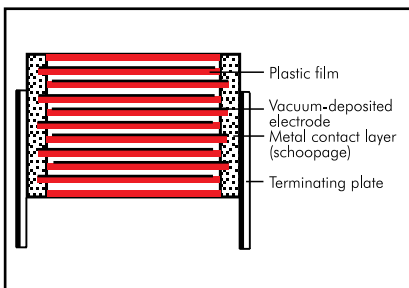
#### Dielectric:

Polypropylene (PP) film

#### Capacitor electrodes:

Vacuum-deposited

#### Internal construction:



#### Encapsulation:

Solvent resistant, flame-retardant plastic case with PU seal

#### Terminations:

Tinned plates, customized plate configurations are possible.

#### Marking:

Colour: Black. Marking: Gold.

### Electrical Data

**Capacitance range:** 140  $\mu\text{F}$  to 8250  $\mu\text{F}$

#### Rated voltages:

450 VDC, 900 VDC, 1500 VDC

**Capacitance tolerance:**  $\pm 10\%$

#### Operating temperature:

$-55^\circ\text{C}$  to  $+85^\circ\text{C}$  ( $+105^\circ\text{C}$  on request)

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

$\geq 30\,000$  sec ( $\text{M}\Omega \times \mu\text{F}$ )

(mean value: 100 000 sec)

Measuring voltage: 100 V/1 min.

**Self-inductance:**  $\leq 50$  nH depending on tab configuration

**ESR** at  $+20^\circ\text{C}$ : See General Data.

**Test voltage:**  $1.5 U_r$ , 10 sec

**Dielectric absorption:** 0.05 %

#### Voltage derating:

A derating factor of 1.35% per K must be applied from  $+70^\circ\text{C}$  for AC currents ( $I_{\text{rms}}$ )

#### Reliability:

Operational life  $> 100\,000$  hours at  $70^\circ\text{C}$  hot spot

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

#### Specific dissipation:

See General Data.

**Standards:** in accordance with IEC 61071

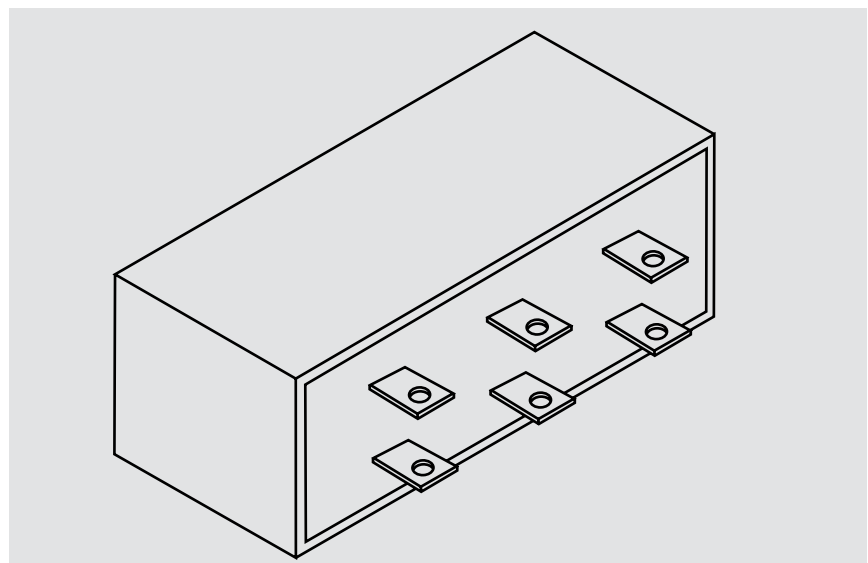
### Mounting Recommendation

Excessive mechanical strain, e.g. pressure or shock onto the capacitor body, is to be avoided during mounting and usage of the capacitors. When fixing the capacitor the screw torque is to be limited to max. 5 Nm.

### Packing

Transportation-safe packing in cardboard boxes.

For further details and graphs please refer to Technical Information.



## Continuation

### General Data

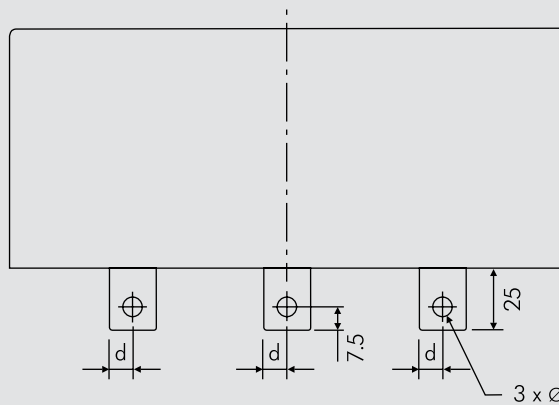
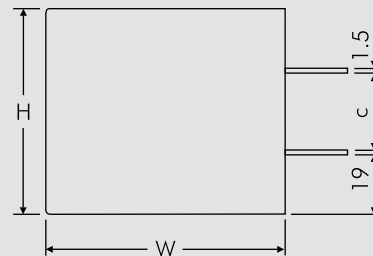
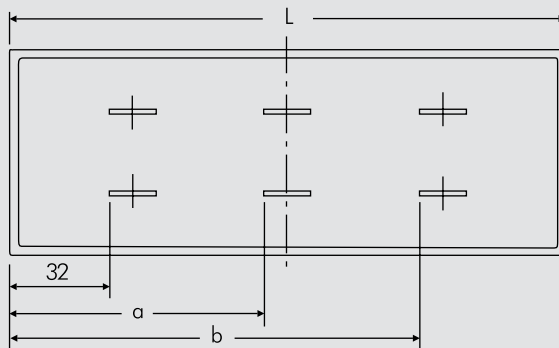
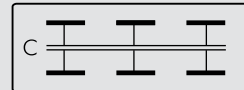
$U_R$	$C_N$	$E_N$ $W_S$	Size (mm)			$I_{rms}$ (max.)* A	$\hat{I}^*$ kA	$I_S^*$ kA	ESR (1 kHz)* m $\Omega$	$R_{th}^*$ K/W	Approx. weight g	Part number
			W	H	L							
450 VDC	1440 $\mu$ F	146	84	66	179	100	4.6	18.6	0.3	2.8	1220	DCHCH07144JB00KS00
	2400 "	243	84	66	291	170	7.7	30.9	0.2	1.8	1985	DCHCH07240JH00KS00
	3000 "	304	107	91	179	120	6.7	26.7	0.3	2.0	2145	DCHCH07300JC00KS00
	4950 "	501	130	114	179	140	8.7	34.9	0.3	1.5	3265	DCHCH07495JE00KS00
	5000 "	506	107	91	291	190	11.1	44.5	0.2	1.3	3485	DCHCH07500JI00KS00
	8250 "	835	130	114	291	210	14.5	58.1	0.2	1.1	5305	DCHCH07825JJ00KS00
900 VDC	450 $\mu$ F	182	84	66	179	90	2.2	8.8	0.5	2.8	1220	DHCN06450JB00KS00
	750 "	304	84	66	291	140	3.7	14.6	0.3	1.8	1985	DHCN06750JH00KS00
	940 "	381	107	91	179	100	2.9	11.6	0.5	2.0	2145	DHCN06940JC00KS00
	1500 "	608	130	114	179	110	3.5	14.1	0.5	1.5	3265	DHCN07150JE00KS00
	1560 "	632	107	91	291	160	4.8	19.3	0.3	1.3	3485	DHCN07156JI00KS00
	2600 "	1053	130	114	291	180	6.1	24.4	0.3	1.1	5305	DHCN07260JJ00KS00
1500 VDC	140 $\mu$ F	158	84	66	179	60	1.2	4.9	0.9	2.8	1220	DHCS06140JB00KS00
	230 "	259	84	66	291	100	2.0	8.1	0.6	1.8	1985	DHCS06230JH00KS00
	280 "	315	107	91	179	80	1.5	6.1	0.8	2.0	2145	DHCS06280JC00KS00
	460 "	518	130	114	179	90	1.8	7.3	0.8	1.5	3265	DHCS06460JE00KS00
	470 "	529	107	91	291	130	2.5	10.2	0.5	1.3	3485	DHCS06470JI00KS00
	790 "	889	130	114	291	150	3.1	12.5	0.4	1.1	5305	DHCS06790JJ00KS00

\* General guide

New values and box sizes

Customer-specific tabs, capacitances or voltages on request

External wiring:



W	H	L	a	b	c	d
84	66	179	82	132	25	7.5
107	91	179	82	132	50	7.5
130	114	179	82	132	73	7.5
84	66	291	135.5	239	25	10
107	91	291	135.5	239	50	10
130	114	291	135.5	239	73	10

Dims. in mm. Case tolerances: general tolerances in accordance with ISO 2768-1 C (approximate)

Rights reserved to amend design data without prior notification.

# WIMA Customized Capacitors for Intermediate Circuit Applications



This could be your  
intermediate circuit  
capacitor.

WIMA DC-LINK HC

WIMA DC-LINK HY

Size  
Capacitance  
Voltage  
Connection  
Casing



# 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
<b>M</b>	<b>K</b>	<b>S</b>	<b>2</b>	<b>C</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>A</b>	<b>0</b>	<b>0</b>	<b>M</b>	<b>S</b>	<b>S</b>	<b>D</b>
MKS 2				63 VDC		0.01 µF			2.5x6.5x7.2		-		20%	bulk	6-2		

<p><b>Type description:</b></p> <p>SMD-PET = SMDT SMD-PEN = SMDN SMD-PPS = SMDI FKP 02 = FKPO MKS 02 = MKSO 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-X1 R = MKX1 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 3 = DCP3 DC-LINK MKP 4 = DCP4 DC-LINK MKP 4S = DCP5 DC-LINK MKP 5 = DCP5 DC-LINK MKP 6 = DCP6 DC-LINK HC = DCHC DC-LINK HY = DCHY</p>	<p><b>Rated voltage:</b></p> <p>50 VDC = B0 63 VDC = C0 100 VDC = D0 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 305 VAC = AW 400 VAC = 3W 440 VAC = 4W 500 VAC = 5W ...</p>	<p><b>Capacitance:</b></p> <p>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 ...</p>	<p><b>Size:</b></p> <p>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 19x31x56 PCM 48.5 = 8D 35x50x57 PCM 52.5 = 9F ...</p>	<p><b>Tolerance:</b></p> <p>±20% = M ±10% = K ±5% = J ±2.5% = H ±1% = E ...</p> <p><b>Packing:</b></p> <p>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/TPS Standard = S ...</p>													

<p><b>Version code:</b></p> <p>Standard = 00 Version A1 = 1A Version A1.1.1 = 1B Version A2 = 2A ...</p>	<p><b>Pin length (untaped)</b></p> <p>3.5 ±0.5 = C9 6-2 = SD 16 ±1 = P1 ...</p>
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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.



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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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