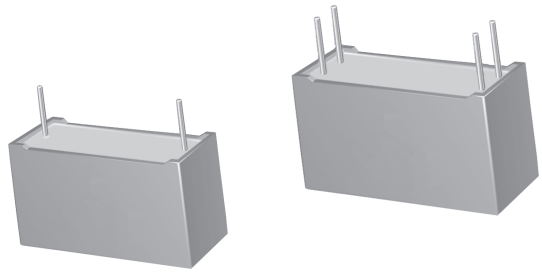
DCB (NEW - In progress)

Metallized polypropylene film capacitor
MKP - DC Link capacitor - small size
Up to 4 x leads execution

Main applications: DC capacitor for medium-low power DC-Link applications in inverters, AC / DC motor controls and welding equipments.



Dielectric	Polypropylene
Electrodes	Vacuum deposited metal layers
Coating (flame retardant)	Solvent resistant plastic case with resin sealing (UL 94 V-0)
Construction	Extended metallized film (refer to general technical information)
Terminals	Tinned copper wire (lead-free); 2 x leads (S=5±1mm, L=25±5mm leads length) or 4 x leads (SD=5,5±1,5mm)
Degree of protection	IP00
Installation	Whatever position assuring correct heat dissipation. Arrangement of many components with box walls in contact not admitted; suggested minimum distance between side by side elements ≥ 1/8 of the box thickness.
Reference standard	IEC 61071, IEC 60068, RoHS compliant
Climatic category	40/85/21 (IEC 60068/1), GPE (DIN40040)
Operating temperature range (case)	-40°...+85°C (at +85°C without power applied)
Max. permissible ambient temperature	+70°C (operation at rated power, current, voltage and natural cooling)
Rated capacitance (Cr)	7,5μF to 55μF. Refer to article table
Capacitance tolerance (at 1kHz)	±10% (code=K), ±5% (code=J). Other tolerances upon request
Capacitance temperature coefficient	Refer to graphs in general technical information
Long term stability (at 1kHz)	Capacitance variation≤ ±1% after a period of 2 years at standard environmental conditions
Rated voltage (Ur)	700, 900, 1100 Vdc
Non recurrent surge voltage (Upk)	875, 1125, 1375 Vdc
Max. repetitive peak voltage (Upkr)	1,15x Ur (30 min. max./ day)
Self inductance	≤ 1nH/mm of capacitor and leads length used for connection
Maximum pulse rise time	Refer to article table
Maximum peak current (Ipeak)	Refer to article table
Dissipation factor (DF), max.	(tgδ x10^{-4}, measured at 25±5°C) ≤ 0,0015 at 1kHz for Cr≤ 30μF; ≤ 0,0020 at 1kHz for Cr> 30μF;
Insulation resistance (IR)	3000s after 1 minute of electrification at 100Vdc (25 ± 5°C)
Test voltage between terminals (Ut)	1,5xUr (DC) applied for 10s at 25±5°C
Test voltage between terminals and case (Utc)	3kV 50÷60Hz applied for 60s at 25±5°C
Damp heat test (steady state)	**Test conditions:** Temperature= +40±2°C; Relative humidity= 93±2%; Test Duration= 21 days — **Performance:** Capacitance change≤ ±3%; DF change≤ 0,0010 at 1kHz; IR≥ 50% of initial limit value
Typical capacitance change versus operating time	-5% after 100'000 hours at Ur
Life expectancy	≥ 100'000 hours (Ur)
Failure quota	300/10^9 component hours Faliure criteria: Short / Open circuit; Capacitance change >±10%; DF change > 2x initial value
Resistance to soldering heat	**Test conditions:** Solder bath temperature= +260±5°C; Dipping time (with heat screen)= 10±1s — **Performance:** Capacitance change≤ ±1%; DF change≤ 0,0010 at1kHz; IR≥ 50% of limit value

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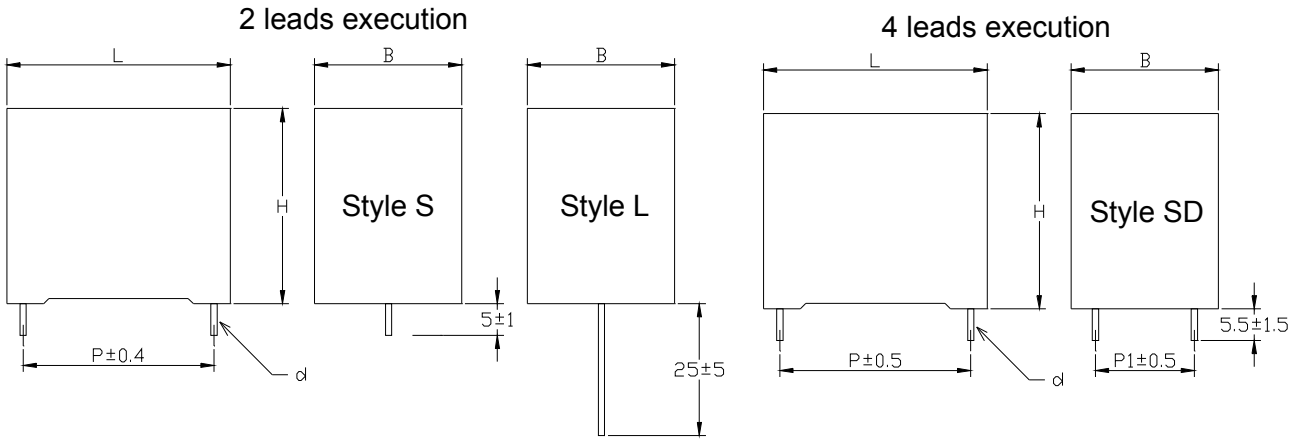

DCB article table (different values available upon request)

Ur	Upk	Upkr	Cap.	Dimension in mm						du/dt	Ipeak	Irms(2)	ESR(3)	ICEL Code(1)
Vdc	Vdc	Vdc	µF	B	H	L	d	P	P1	V/µs	A	A	mΩ	
700	875	805	12,5	22	30	42,5	1,2	37,5	-	13	162,5	7,5	8,5	DCB1705125*J#
700	875	805	15	22	33,5	42,5	1,2	37,5	-	13	195	8	7,5	DCB1705150*J#
700	875	805	15	22	33,5	42,5	1,2	37,5	10,2	13	195	9,5	6,5	DCB1705150*JSD
700	875	805	20	28	37	42,5	1,2	37,5	-	13	260	10	6,3	DCB1705200*J#
700	875	805	20	28	37	42,5	1,2	37,5	10,2	13	260	12	5,3	DCB1705200*JSD
700	875	805	22	28	37	42,5	1,2	37,5	-	13	286	10	6	DCB1705220*J#
700	875	805	22	28	37	42,5	1,2	37,5	10,2	13	286	12	5	DCB1705220*JSD
700	875	805	30	30	45	42,5	1,2	37,5	-	13	390	12,5	4,9	DCB1705300*J#
700	875	805	30	30	45	42,5	1,2	37,5	20,3	13	390	15	3,9	DCB1705300*JSD
700	875	805	45	30	45	57,5	1,2	52,5	-	10	400	13,5	5	DCB1705450*R#
700	875	805	45	30	45	57,5	1,2	52,5	20,3	10	400	16,5	4	DCB1705450*RSD
700	875	805	55	35	50	57,5	1,2	52,5	-	10	500	14	4,5	DCB1705550*R#
700	875	805	55	35	50	57,5	1,2	52,5	20,5	10	500	19	3,5	DCB1705550*RSD
900	1125	1035	10	22	33,5	42,5	1,2	37,5	-	16	160	7,5	8,3	DCB1905100*J#
900	1125	1035	12	20	40	41,5	1,2	37,5	-	16	192	8,5	7,5	DCB1905120*J#
900	1125	1035	12	20	40	41,5	1,2	37,5	10,2	16	192	10	6,5	DCB1905120*JSD
900	1125	1035	15	28	37	42,5	1,2	37,5	-	16	240	9,5	6,7	DCB1905150*J#
900	1125	1035	15	28	37	42,5	1,2	37,5	10,2	16	240	11,5	5,7	DCB1905150*JSD
900	1125	1035	16	24	44	41,5	1,2	37,5	-	16	256	10	6,5	DCB1905160*J#
900	1125	1035	16	24	44	41,5	1,2	37,5	10,2	16	256	12	5,5	DCB1905160*JSD
900	1125	1035	20	30	45	42,5	1,2	37,5	-	16	320	11,5	5,7	DCB1905200*J#
900	1125	1035	20	30	45	42,5	1,2	37,5	20,3	16	320	14	4,7	DCB1905200*JSD
900	1125	1035	30	30	45	57,5	1,2	52,5	-	11	330	12,5	5,6	DCB1905300*R#
900	1125	1035	30	30	45	57,5	1,2	52,5	20,3	11	330	15,5	4,6	DCB1905300*RSD
900	1125	1035	40	35	50	57,5	1,2	52,5	-	11	440	14	4,8	DCB1905400*R#
900	1125	1035	40	35	50	57,5	1,2	52,5	20,3	11	440	19	3,8	DCB1905400*RSD
1100	1375	1265	7,5	22	33,5	42,5	1,2	37,5	-	20	150	7	9,4	DCB2114750*J#
1100	1375	1265	10	28	37	42,5	1,2	37,5	-	20	200	9	7,7	DCB2115100*J#
1100	1375	1265	10	28	37	42,5	1,2	37,5	10,2	20	200	10,5	6,7	DCB2115100*JSD
1100	1375	1265	12,5	30	45	42,5	1,2	37,5	-	20	250	10,5	6,7	DCB2115125*J#
1100	1375	1265	12,5	30	45	42,5	1,2	37,5	20,3	20	250	12,5	5,7	DCB2115125*JSD
1100	1375	1265	20	30	45	57,5	1,2	52,5	-	13	260	12	6,4	DCB2115200*R#
1100	1375	1265	20	30	45	57,5	1,2	52,5	20,3	13	260	14	5,4	DCB2115200*RSD
1100	1375	1265	25	35	50	57,5	1,2	52,5	-	13	325	14	5,7	DCB2115250*R#
1100	1375	1265	25	35	50	57,5	1,2	52,5	20,3	13	325	16	4,7	DCB2115250*RSD

(1)Change the * symbol with the needed capacitance tolerance code: J=±5%, K=±10% and the # symbol with S for 5mm lead length and with L for 25 mm lead length - (2) Maximum values at 10kHz, +70°C, Cap. tol.≤ ±10%- (3) Typical values at 10kHz

Warning

This specification must be completed with the data given in the "General technical information" chapter