

CAPACITOR



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DKMJ-S
DC—Link

POWER LINKS SUCCESS

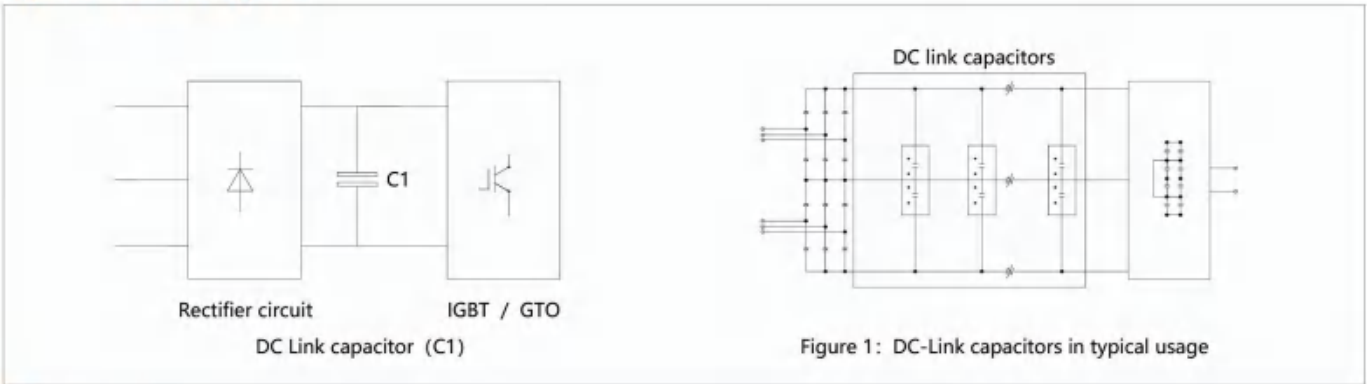
DC-Link DKMJ-S series Metalized film capacitor



Application

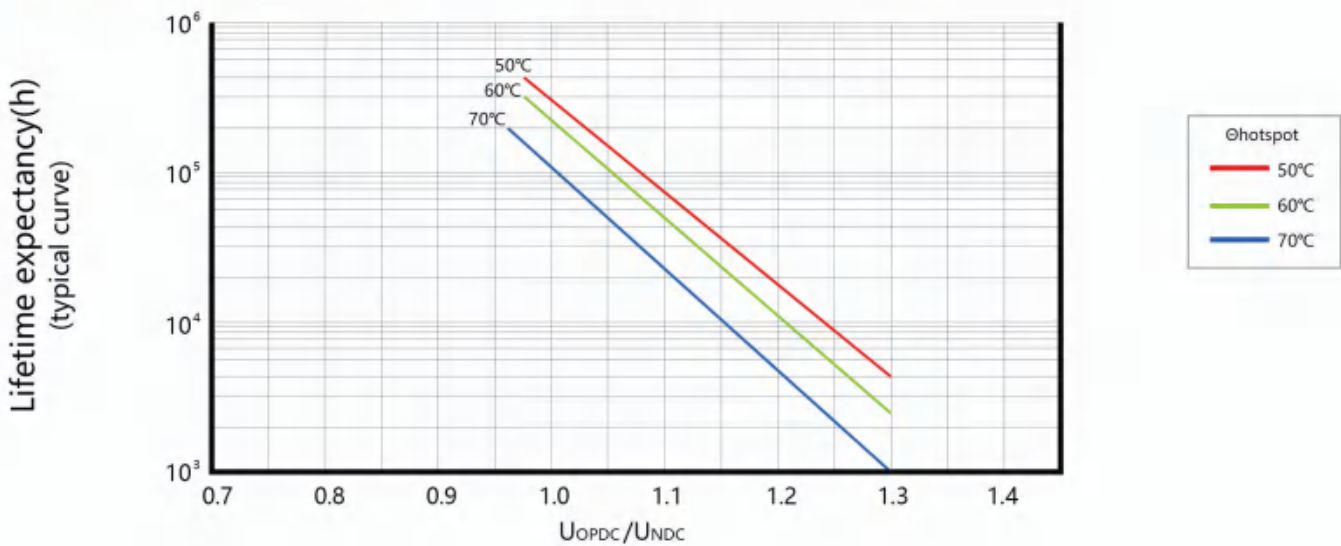
- Widely used in DC-link circuit for filtering energy storage.
- Can replace electrolytic capacitors,better performance and longer life.
- Pv inverter,wind power converter,All kinds of frequency converter and inverter power supply;Pure electric and hybrid cars;SVG,SVC devices and other kinds of power quality management.

Typical circuit diagram



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Life expectancy in the graph



Technical data

Operating temperature range	Max.Operating temperature.,Top,max:+70°C Upper category temperature:+60°C Lower category temperature:-40°C	
(C _N) /Capacitance range	100μF ~ 20000μF	
(U _N) /Rated voltage	600V.DC ~ 4000V.DC	
Cap.tol	±5% (J) ; ±10% (K)	
Withstand voltage	Vt-t	1.5U _N DC/60s
	Vt-c	1000+2×U _N /√2 (V.AC) 60s (min 3000V.AC)
Over voltage	1.1U _N (30% of on-load-dur.)	
	1.15U _N (30min/day)	
	1.2U _N (5min/day)	
	1.3U _N (1min/day)	
	1.5U _N (100ms every time,1000 times during the lifetime)	
Dissipation factor	tgδ≤0.003 f=100Hz	
	tgδ≤0.0002	
Insulation resistance	(Built-in discharge resistor) (Actual measurement)	
Withstand strike current	See the specification sheet	
I _{rms}	See the specification sheet	
ESL	< 150nH	
Flame retardation	UL94V-0	

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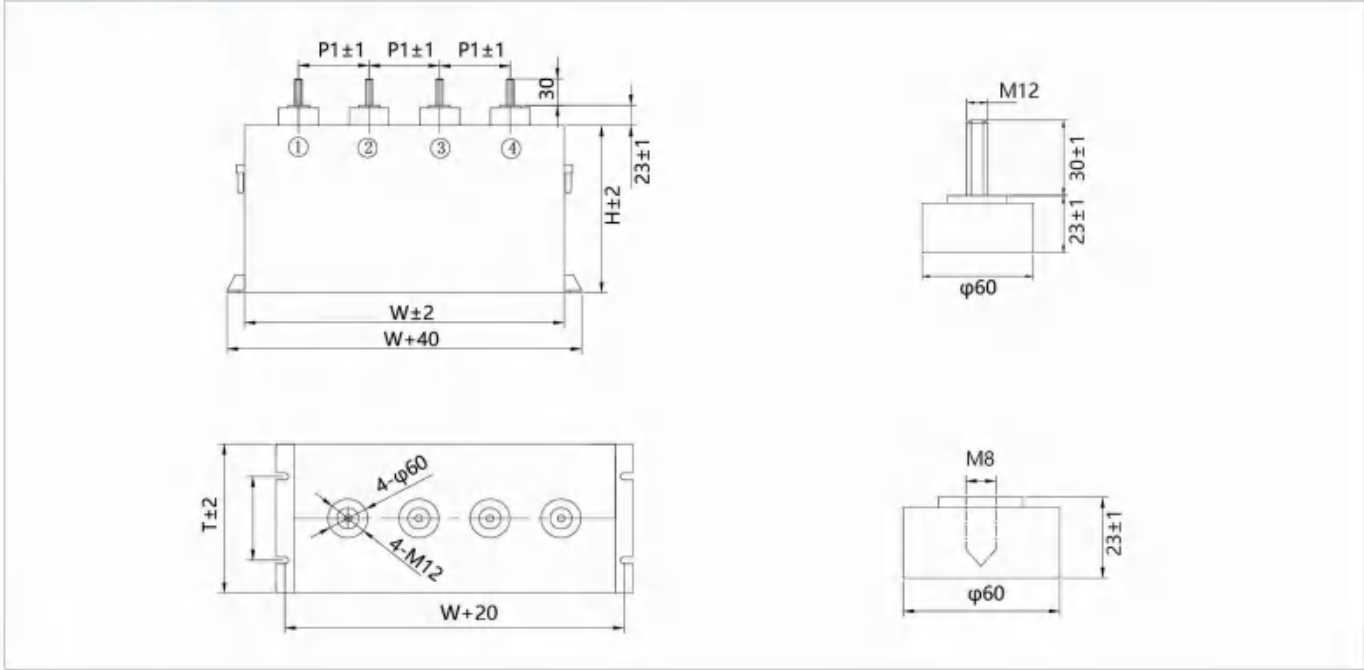
DC-Link DKMJ-S series

Metalized film capacitor

Technical data

Maximum altitude	2000m Derating should be considered when the altitude is between 2000m -5000m. (For each increase of 1000m, voltage and current will be reduced by 10%)
Life expectancy	100000h($U_N, \theta_{\text{hotspot}} \leq 70^\circ\text{C}$)
Reference standard	IEC61071;IEC61881

The contour map



Specification table

C_N (μF)	W (mm)	T (mm)	H (mm)	dv/dt (V/ μS)	I_p (kA)	I_{rms} @10kHz50°C (A)	ESR @1kHz (m Ω)	R_{th} (K/W)	Weight $\approx$ (kg)
UN 800V.DC US 1200V Ur 200V									
4000	340	125	190	5	20.0	120	1.1	0.9	17.6
8000	340	125	350	4	32.0	180	0.72	0.6	31.2
6000	420	125	245	5	30.0	150	0.95	0.7	26.4
10000	420	125	350	4	40.0	200	0.72	0.5	37.9
12000	420	215	245	4	48.0	250	0.9	0.3	44.8
20000	420	235	350	3	60.0	300	0.6	0.3	70.9
UN 1200V.DC US 1800V Ur 300V									
3300	340	125	245	8	26.4	150	0.95	0.7	22.4
5000	420	125	300	7	35.0	180	0.8	0.6	32.8
7500	420	125	430	5.5	41.3	200	0.66	0.6	44.8
5000	340	235	190	8	40.0	200	1.1	0.3	32.8
10000	340	235	350	6	60.0	250	0.8	0.3	58.4



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Specification table

续上表

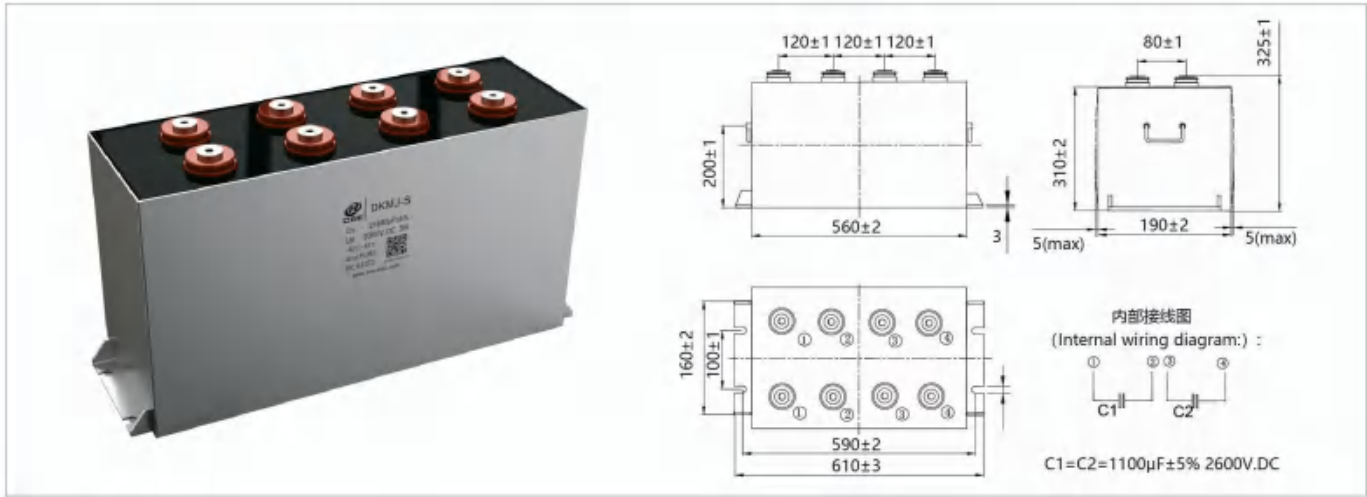
C_N (μF)	W (mm)	T (mm)	H (mm)	dv/dt (V/ μS)	I_p (kA)	I_{rms} @10kHz50°C (A)	ESR @1kHz (m Ω)	R_{th} (K/W)	Weight $\approx$ (kg)
UN 1200V.DC US 1800V Ur 300V									
5000	420	215	170	8	40.0	200	1	0.4	32
7500	420	215	235	7	52.5	250	0.9	0.3	43
10000	420	215	300	7	70.0	250	0.8	0.3	55.8
15000	420	215	430	5	75.0	300	0.6	0.3	76.9
UN 1500V.DC US 2250V Ur 450V									
1200	340	105	220	10	12.0	120	1.1	0.9	17.1
3000	340	115	430	8	24.0	180	0.66	0.7	34.8
2000	420	115	240	10	20.0	150	0.95	0.7	23.8
4000	420	115	430	8	32.0	200	0.66	0.6	41.2
5000	340	235	350	8	40.0	250	0.8	0.3	58.4
4000	420	215	235	10	40.0	250	0.9	0.3	43.5
8000	420	215	430	8	64.0	300	0.6	0.3	76.9
UN 2000V.DC US 3000V Ur 600V									
1000	340	125	245	12	12.0	150	0.95	0.7	22.4
1500	340	125	350	10	15.0	180	0.72	0.6	31.2
2000	420	125	360	10	20.0	200	0.72	0.5	39.2
2400	420	125	430	9	21.6	200	0.66	0.6	44.8
3200	340	235	350	10	32.0	250	0.8	0.3	46.4
4000	420	235	360	10	40.0	280	0.7	0.3	58.4
4800	420	235	430	9	43.2	300	0.6	0.3	67.2
UN 2200V.DC US 3300V Ur 600V									
2000	420	235	245	12	24.0	150	0.9	0.7	40
2750	420	235	300	10	27.5	200	0.8	0.5	49.6
3500	420	235	360	10	35.0	200	0.7	0.5	58.4
UN 3000V.DC US 4500V Ur 800V									
1050	420	235	245	20	21.0	150	0.9	0.7	40
1400	420	235	300	15	21.0	200	0.8	0.5	49.6
1800	420	235	360	15	27.0	200	0.7	0.5	58.4
UN 4000V.DC US 6000V Ur 1000V									
600	420	235	245	20	12.0	150	0.9	0.7	40
800	420	235	300	20	16.0	200	0.8	0.5	49.6
1000	420	235	360	20	20.0	200	0.7	0.5	58.4
可以依照客户需求定制产品									



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DC-Link DKMJ-S series

Metalized film capacitor (Custom-made)

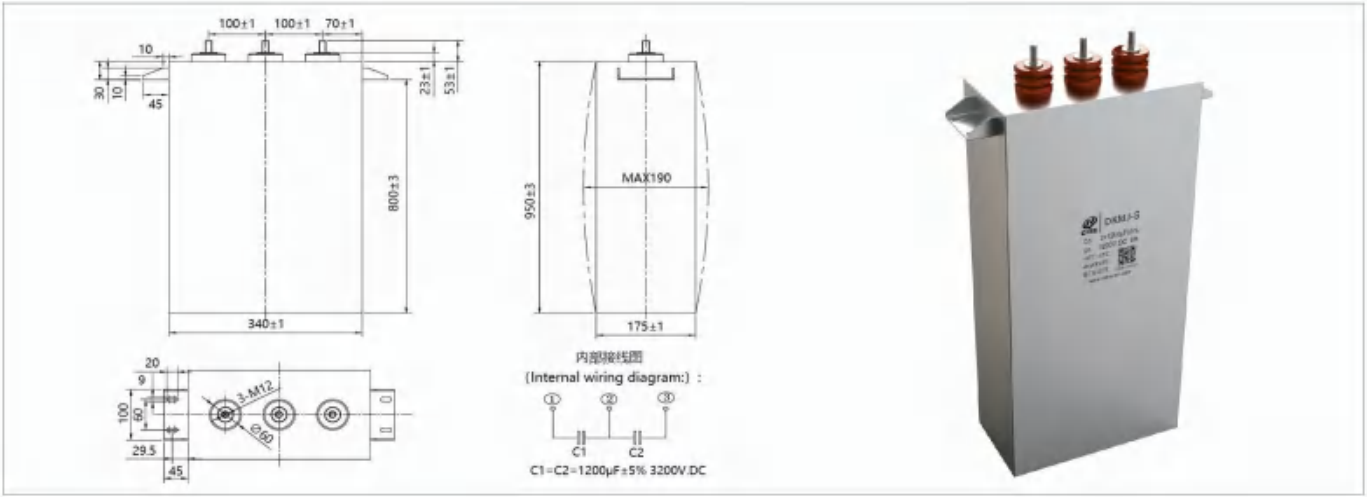


DC-Link DKMJ-S series

Operating temperature range	-40°C ~ 85°C	
Storage temperature range	-40°C ~ 85°C	
(U _N) /Rated voltage	2600V.DC	
(C _N) /Rated capacitance	2×1100µF	
Cap.tol	±5% (J)	
Withstand voltage	Vt-t	1.5U _N /10s (20°C±5°C)
	Vt-c	6000V.AC/10s (50Hz, 20°C±5°C)
Dissipation factor	tgδ≤0.003 f=100Hz	
	tgδ ₀ ≤0.0002	
Insulation resistance	R _s ×C≥10000s (at20°C 100V.DC 60s)	
ESR	0.6mΩ(1kHz)	
Ls	≤120nH	
Rth	0.8K/W	
Max.current I _{rms}	2×300A (50°C)	
Nonrecurrent surge voltage(Us)	3900V.DC	
Maximum peak current(I _p)	2×11kA	
Maximum surge current(Is)	2×33kA	
Failure quota	≤100fit	
Life expectancy	≥100000h (U _N ; θ _{hotspot} ≤70°C)	
Reference standard	IEC61071; IEC61881	
Weight	≈60kg	
Dimension	560mm×190mm×310mm	



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DC-Link DKMJ-S series

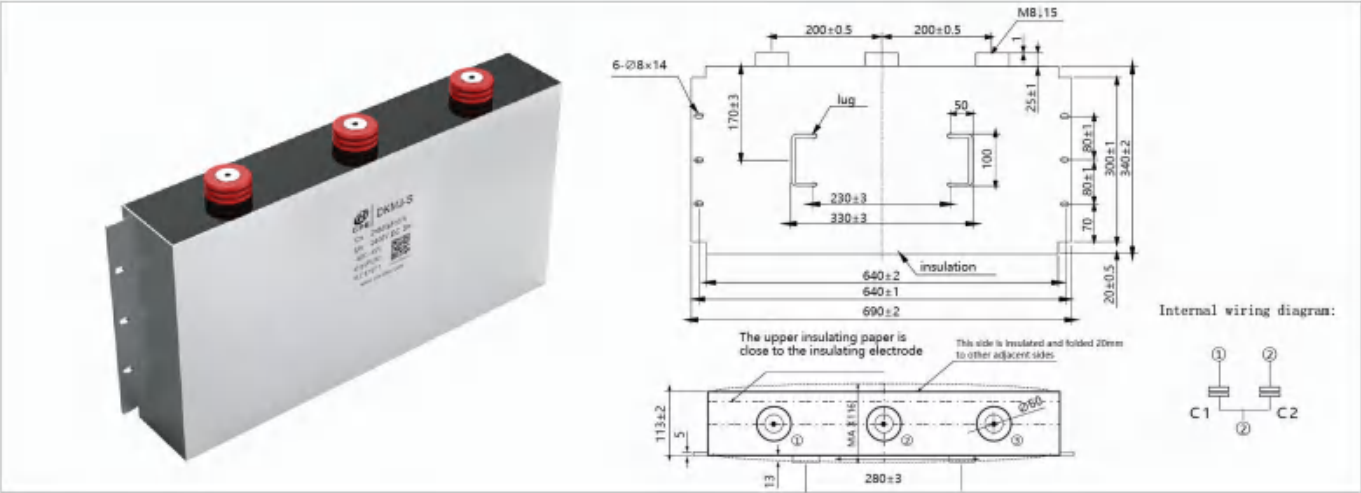
Operating temperature range	-40°C ~ 85°C	
Storage temperature range	-40°C ~ 85°C	
(U _N) /Rated voltage	3200V.DC	
(C _N) /Rated capacitance	2×1200µF	
Cap.tol	±5% (J)	
Withstand voltage	Vt-t	1.5U _N /10s (20°C±5°C)
	Vt-c	6000V.AC/10s (50Hz, 20°C±5°C)
Dissipation factor	tgδ≤0.003 f=100Hz	
	tgδ ₀ ≤0.0002	
Insulation resistance	R _s ×C≥10000s (at20°C 100V.DC 60s)	
ESR	0.5mΩ(1kHz)	
Ls	≤150nH	
Rth	0.7K/W	
Max.current I _{rms}	2×300A (50°C)	
Nonrecurrent surge voltage(Us)	4800V.DC	
Maximum peak current(I _p)	2×12kA	
Maximum surge current(Is)	2×24kA	
Failure quota	≤100fit	
Life expectancy	≥100000h (U _N ; θ _{hotspot} ≤70°C)	
Reference standard	IEC61071; IEC61881	
Weight	≈95kg	
Dimension	340mm×175mm×950mm	



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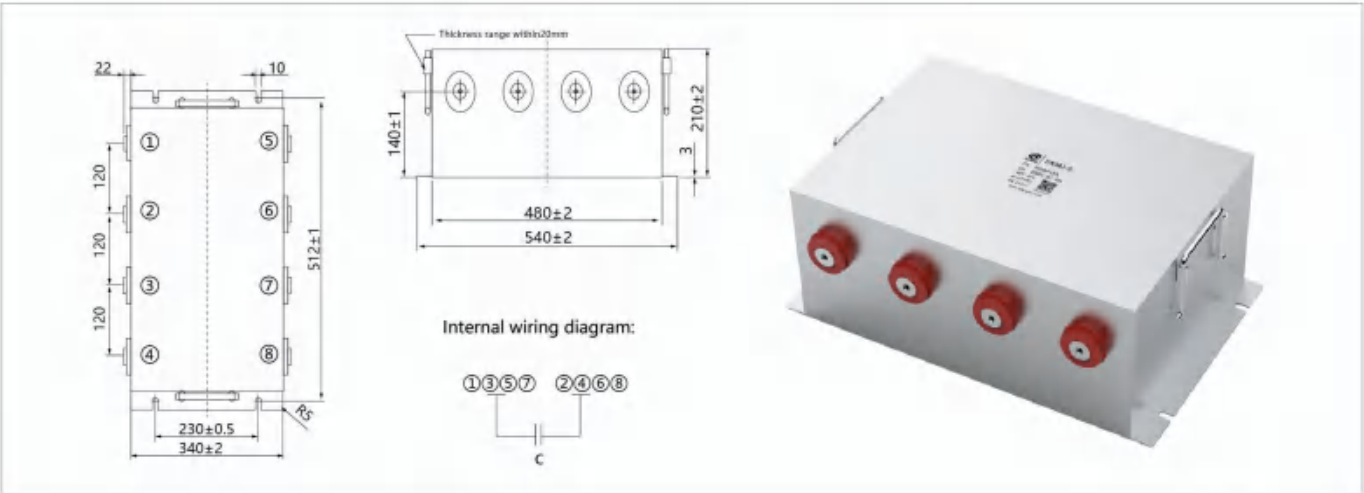
DC-Link DKMJ-S series

Metalized film capacitor (Custom-made)



DC-Link DKMJ-S series

Operating temperature range	-40°C ~ 85°C	
Storage temperature range	-40°C ~ 85°C	
(U _N) /Rated voltage	2400V.DC	
(C _N) /Rated capacitance	2×880μF	
Cap.tol	±5% (J)	
Withstand voltage	Vt-t	1.5U _N /10s (20°C±5°C)
	Vt-c	10000V.AC/60s (50Hz, 20°C±5°C)
Dissipation factor	tgδ≤0.003 f=100Hz	
	介质损耗 tgδ ₀ ≤0.0002	
Insulation resistance	R _s ×C≥10000s (at20°C 100V.DC 60s)	
ESR	0.6mΩ(1kHz)	
Ls	≤50nH	
Rth	2.5K/W	
Max.current I _{rms}	2×150A (70°C)	
Nonrecurrent surge voltage(Us)	3600V.DC	
Maximum peak current(I)	2×13.2kA	
Maximum surge current(Is)	2×39.6kA	
Failure quota	≤100fit	
Life expectancy	≥100000h (U _N ; θ _{hotspot} ≤70°C)	
Reference standard	IEC61071; IEC61881	
Weight	≈45kg	
尺寸/Dimension	640mm×113mm×340mm	



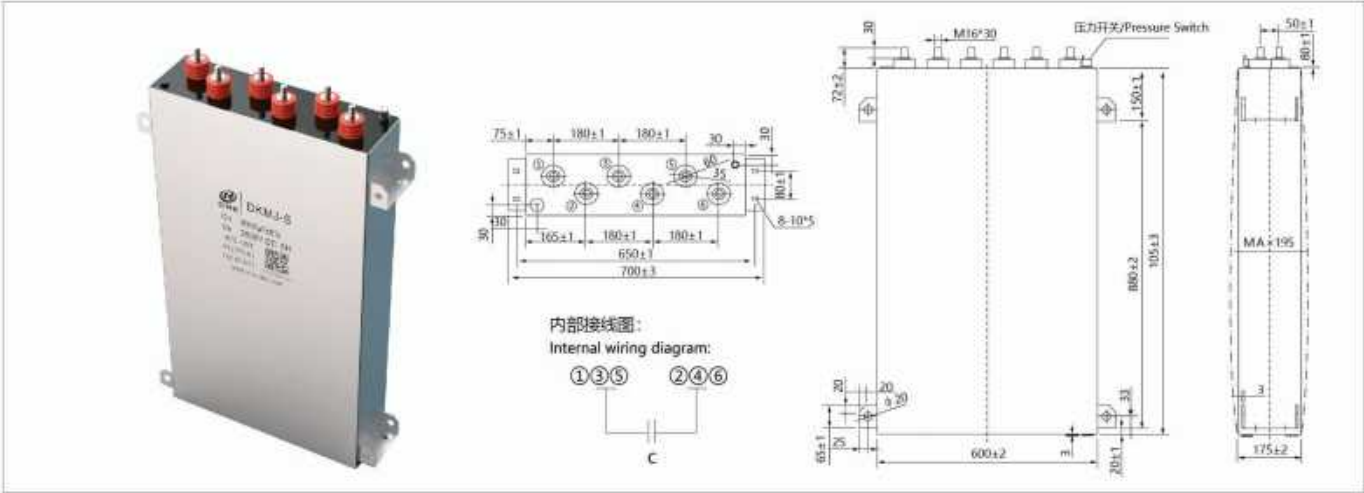
DC-Link DKMJ-S series

Operating temperature range	-40°C ~ 85°C	
Storage temperature range	-40°C ~ 85°C	
(U _N) /Rated voltage	2000V.DC	
(C _N) /Rated capacitance	3500μF	
Cap.tol	±5% (J)	
Withstand voltage	Vt-t	1.5U _N /10s (20°C±5°C)
	Vt-c	10000V.AC/60s (50Hz, 20°C±5°C)
Dissipation factor	tgδ≤0.003 f=100Hz	
	tgδ ₀ ≤0.0002	
Insulation resistance	R _s ×C≥10000s (at20°C 100V.DC 60s)	
ESR	0.9mΩ(1kHz)	
Ls	≤70nH	
Rth	0.95K/W	
Max.current I _{rms}	250A (50°C)	
Nonrecurrent surge voltage(Us)	3000V.DC	
Maximum peak current(I)	35kA	
Maximum surge current(Is)	105kA	
Failure quota	≤100fit	
Life expectancy	≥100000h (U _N ; θ _{hotspot} ≤70°C)	
Reference standard	IEC61071; IEC61881	
Weight	≈55kg	
Dimension	480mm×340mm×210mm	



DC-Link 金属化薄膜电容器 (定制品) DKMJ-S series

Metalized film capacitor (Custom-made)



DC-Link 金属化薄膜电容器 (定制品) DKMJ-S series

工作温度范围/Operating temperature range	-40℃ ~ 85℃	
贮存温度范围/Storage temperature range	-40℃ ~ 85℃	
额定电压 (U _N) /Rated voltage	2800V.DC	
额定容量 (C _N) /Rated capacitance	9000μF	
容量偏差/Cap.tol	±5% (J)	
耐电压/Withstand voltage	Vt-t	1.5U _N /10s (20℃±5℃)
	Vt-c	6000V.AC/10s (50Hz, 20℃±5℃)
损耗角正切/Dissipation factor	tgδ≤0.00144 f=120Hz	
	介质损耗 tgδ ₀ ≤0.0002	
绝缘电阻/Insulation resistance	R _s ×C≥10000s (at20℃ 100V.DC 60s)	
等效串联电阻/ESR	0.14mΩ(1kHz)	
自感/Ls	≤55nH	
热阻/Rth	0.15K/W	
额定电流/Max.current I _{rms}	750A (50℃)	
浪涌电压/Nonrecurrent surge voltage(Us)	4200V.DC	
脉冲峰值电流/Maximum peak current(I)	32kA	
浪涌电流/Maximum surge current(Is)	800kA (5次)	
失效率/Failure quota	≤100fit	
预期寿命/Life expectancy	≥100000h (U _N ; θ _{hotspot} ≤70℃)	
引用标准/Reference standard	IEC61071	
重量/Weight	≈150kg	
尺寸/Dimension	600mm×175mm×1050mm	

