

www.cgegd.com

创新引领未来



CGE Film Capacitor

创格电子·薄膜电容器

Electric vehicle and charger capacitor

电动车及其充电设备专用电容器



佛山市顺德区创格电子实业有限公司

FOSHAN SHUNDE CHUANGGE ELECTRONIC INDUSTRIAL CO., LTD.



佛山市顺德区创格电子实业有限公司 成立于1997年，是一家集研发、设计、生产、销售及售后服务于一体的大型专业薄膜电容器制造企业，产品产销量历年来在广东省一直居于同行前列。公司自建 30000 平方米高标准厂房，现有员工400多人，工程技术人员50多人，拥有企业工程技术研究开发中心，技术力量雄厚，研发能力强，拥有电容器领域48项专利，其中发明专利14项，实用新型专利27项，外观设计专利7项。

作为国家级高新技术企业、顺德区优质企业成长工程重点扶持企业（龙腾企业），公司获得了ISO9001质量管理体系认证、ISO14001环境管理体系认证，产品先后通过了CQC、UL、VDE、TUV、CB等产品认证，“能源设备用电力电容器”被评为广东省名牌产品，15个系列产品先后获得广东省高新技术产品认定。

公司拥有完善的市场网络和较强的市场管理能力，生产规模和产品的市场占有率在金属化膜电容器行业居领先地位。公司注重技术创新，研发费用投入逐年增长，每年研发投入至少占销售收入的4%以上，在自主研发的同时积极同国内高校进行产学研合作，先后与华中科技大学、辽宁工业大学、广东工业大学等高校开展了广泛的合作。

公司产品一部（家电IH类）主要产品有MKP-X2、MKPH系列家用电磁炉专用电容器。优质的产品，满意的服务在家用IH行业中拥有非常好的口碑。

公司产品二部(商用、工业类) 主要产品有DC-link电容器、IGBT吸收保护电容器、MKPH高压谐振、耦合电容器以及输入输出滤波电容器。广泛应用于商用电磁炉、感应加热设备、UPS、小功率逆变器、高频开关电源、焊机电源、电镀电源、大功率变频器、电动车，并在风能/太阳能发电、变流/变频设备等其他新能源行业得到广泛的应用。

公司产品三部（消费电子类）主要产品有CBB61、CBB60系列交流电动机电容，以及安规电容、分频电容、点火滤波电容、滤波器等系列。在抽油烟机、微波炉、洗衣机、办公设备等行业得到广泛的应用。

Foshan shunde CG Electronic Industry Co., LTD. was founded in 1997, is a large professional film capacitor manufacturer which is collection of R&D, design, production, sales and after-sales service in one. Production and sales volume has been in the forefront in guangdong province in the pass few years. CG Electronic has high standard workshop of 30000 square meters, staff more than 400 people, engineering technical personnel more than 50 people, with the enterprise engineering technology research and development centers. Technical force is abundant, the research and development ability is strong, with 48 patents in the field of capacitor, including 14 invention patents, 27 utility patents and 7 design patents.

As a national high-tech enterprise, obtained support of shunde government program which named "longteng enterprises", company obtained ISO9001 quality management system certification, ISO14001 environmental management system certification, products have passed CQC, UL, VDE, TUV, CB certification, "power capacitor for energy equipment" was rated as brand-name products in guangdong province, 15 series products has won the guangdong high-tech products certification.

CG Electronic has perfect market network and strong ability of marketing management, production scale and product market share in the leading position in the metallized film capacitor industry. Company focus on technological innovation, R&D investment increased year by year, annual R&D investing accounts is more than 4% of sales revenue, not only independent research and development, but also cooperation with domestic colleges and universities, successively carry out extensive cooperation with huazhong university of science and technology, liaoning university of technology, guangdong university of technology and other colleges and universities.

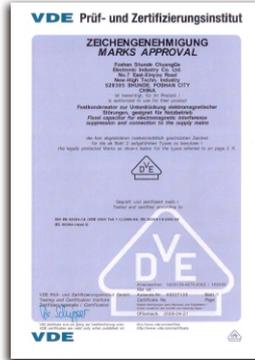
Product department 1 (home appliances IH class) the main products are special MKP - X2, MKPH household induction cooker series capacitor. Win very good reputation in household IH market with high quality products and satisfactory service.

Product department 2 (commercial and industrial) main products are DC link capacitor, IGBT snubber capacitor, MKPH resonance capacitor, coupling capacitor and AC filter capacitor. It is widely applied to commercial induction cooker, induction heating equipment, UPS, small power inverter, high frequency switching power supply, power supply, plating power supply, inverter welding machine, electric cars and so on. And widely used in new energy solar and wind power system.

Product department 3 (consumption electronics), the main products are CBB61, CBB60 ac motor capacitor, X2 capacitor, CBB20 capacitor, ignition capacitor, filter module, etc. Widely used in smoke exhaust ventilator, microwave ovens, washing machines, office equipment and so on.



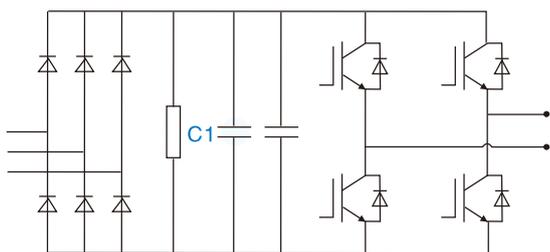
生产流程/荣誉证书



产品介绍/Introduction

采用金属化聚丙烯薄膜进行无感式卷绕，特殊喷金工艺，工程塑料、铝或不锈钢外壳封装，阻燃导热环氧树脂灌封，铜插片或铜螺母引出。具有高容量，大电流，低温升，杂散电感小等优点，主要应用于电动汽车及混合动力汽车作直流滤波及支撑。Non-inductive winding with metallized polypropylene film, special metal spray, plastics, aluminum or stainless steel shell encapsulation, flame retardant and thermal conductivity epoxy potting, copper sheet or copper nut terminal. big capacitance, large current, low temperature rise, low stray inductance, mainly used in electric vehicles and hybrid vehicles for dc-link.

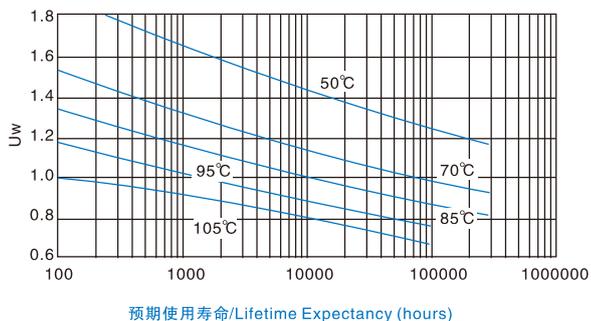
典型线路图/Typical circuit



引用标准/Referenced standard

标准号 (No.)	标准 (Standards)
GB/T 17702 (IEC 61071)	电力电子电容器 Capacitors for power electronics
GB-T 4798-1 (IEC 60721-3-1)	电工电子产品应用环境条件 第1部分 贮存。 Classification of environmental conditions Part3 Classification of groups of environmental parameters and their severities Section 1 storage
GB-T 4798-3 (IEC 60721-3-3)	电工电子产品应用环境条件 第3部分 有气候防护场所固定使用 Classification of environmental conditions Part3 Classification of groups of environmental parameters and their severities Section 3 Stationary use at weatherprotected locations

预期使用寿命/Lifetime expectancy for MKP-LB

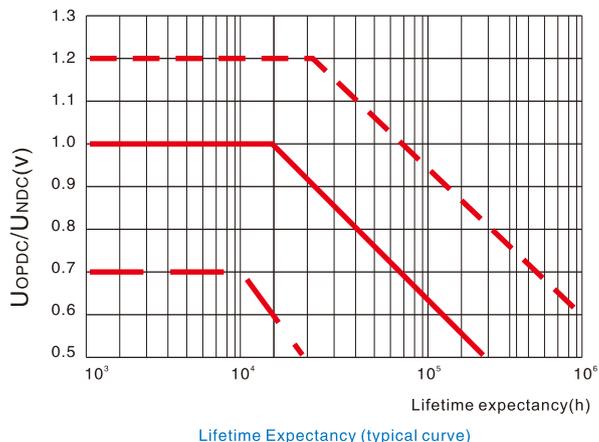


工作电压/Uw: permanent working or operating DC-voltage

性能指标/Technical data

引用标准 Reference	GB/T17702-2013, IEC61071:2007, SJ/T11614-2016, AEC-Q200D-2010
容量范围 Capacitance	200~2000 μ F
容量偏差 Capacitance Tol.	$\pm 10\%$ (K)
电压范围 Voltage	400V.DC~800V.DC
极间耐压 U_{T-T}	1.5Un/10s 1.1Un (30% of on-load-dur.)
过电压 Over Voltage	1.15Un (30min/day) 1.2Un (5min/day) 1.3Un (1min/day)
介质损耗角 $\text{tg } \delta_o$	$\text{tg } \delta_o \leq 0.0002$
绝缘电阻 $R_i X C_n$	$\geq 15000s$ (20°C $\pm 5^\circ\text{C}$ 100V.DC 60s)
耐电流冲击能力 dv/dt	$> 50V/\mu s$
气候类别 Climatic Category	40/105/56
工作温度范围 Operating Temp.	-40°C~105°C ($\theta h.s \leq 105^\circ\text{C}$)
储存温度范围 Storage Temp.	-40°C~85°C
最大电极扭矩 Torque of terminals	M6:3.5N.m M8:6N.m
使用海拔 Max.Altitude	$< 4000m$
预期寿命 Lifetime Expectancy	100 000h ($\theta h.s \leq 70^\circ\text{C}$)
封装形式 Encapsulation	不锈钢外壳或塑料外壳，黑色环氧

注：海拔使用高度超过4000m，应该考虑海拔对冷却和绝缘的影响。



MKP-LB

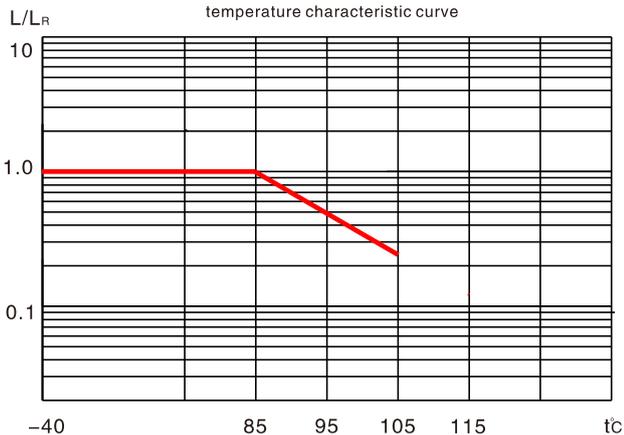
车载方形DC-LINK滤波电容器
DC-LINK capacitor(box type) for Electric vehicles



特性曲线/Characteristic curve

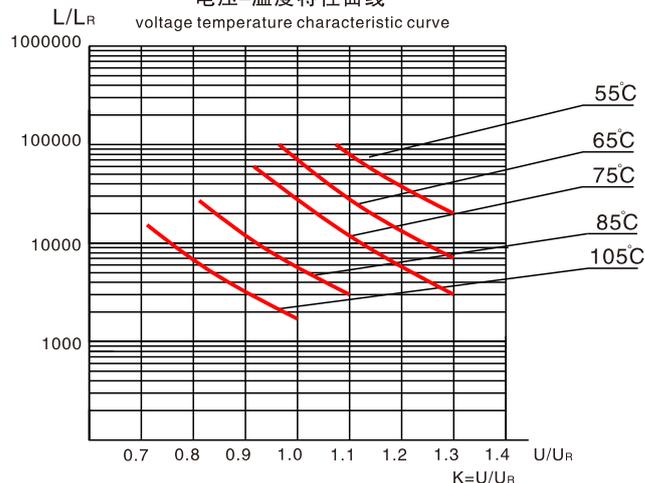
温度特性曲线

temperature characteristic curve



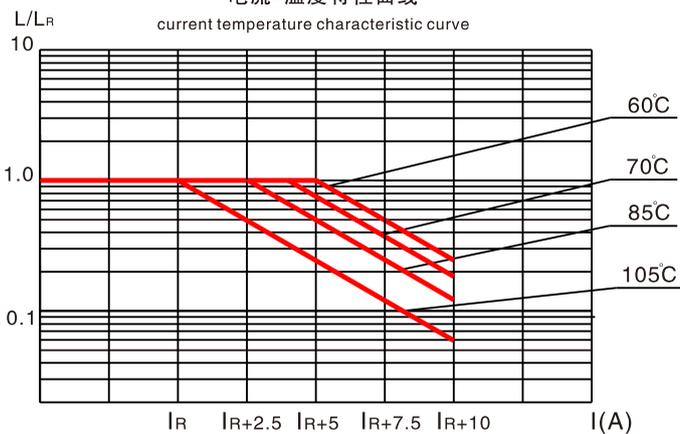
电压-温度特性曲线

voltage temperature characteristic curve



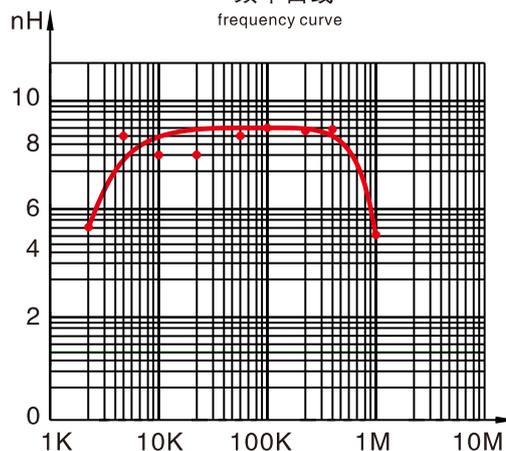
电流-温度特性曲线

current temperature characteristic curve



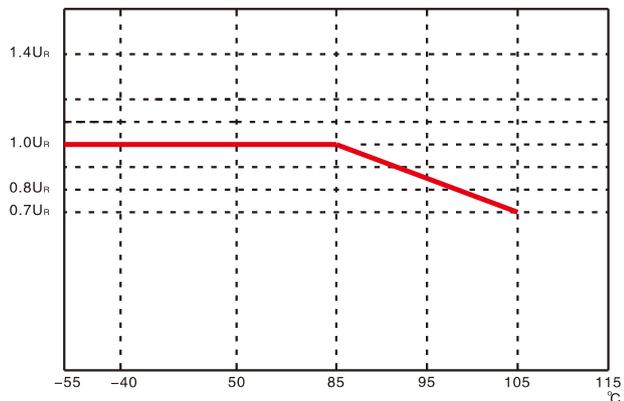
频率曲线

frequency curve



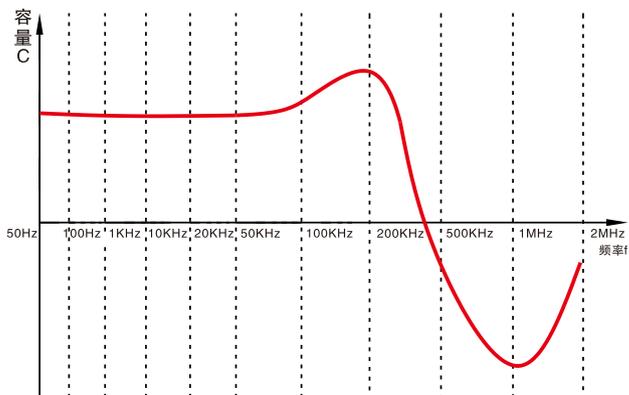
电压降额曲线

voltage derating curve

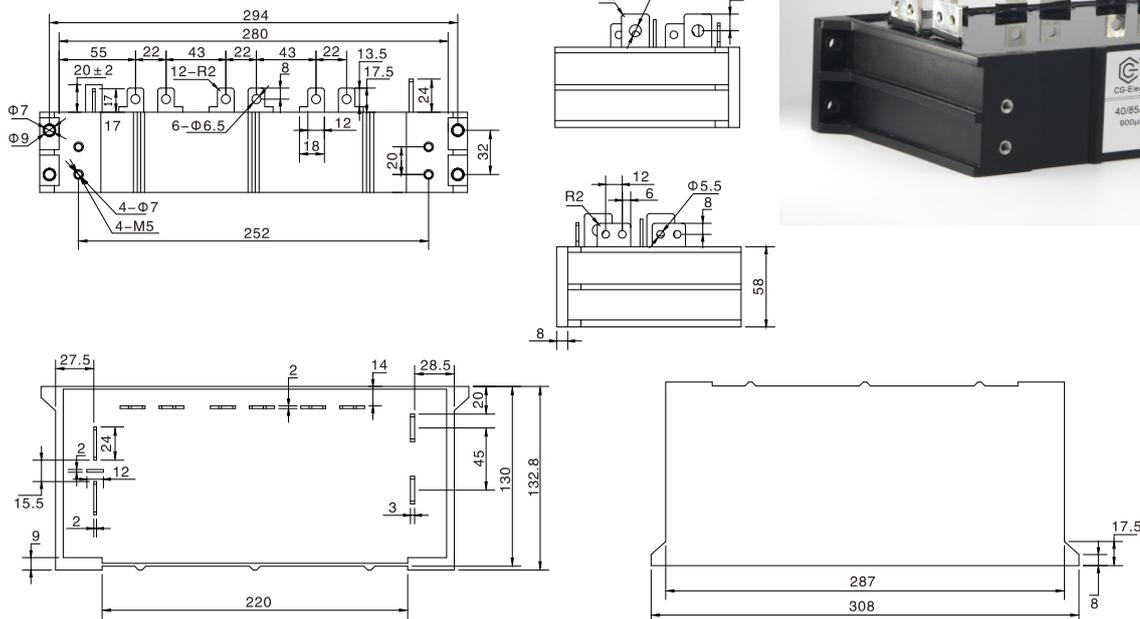


频率和容量关系曲线

frequency and capacity curve



外型及尺寸/Outline drawing



性能指标/Technical data

引用标准 Reference Standard	IEC61071:2007、GB/T17702-2013、SJ/T11614-2016、AEC-Q200D-2010
气候类别 Climatic Category	40/85/56
工作温度范围 Operating Temperature Range	最高定行温度105℃ MAX. Setting Temperature 105℃
储存温度范围 Storage Temperature Range	-40℃ ~ 105℃
额定电压 (Un)Rated Voltage	900V.DC
额定容量 (Cn)Rated Capacitance	1350 µF
电容量允许偏差 Capacitance Tolerance	± 10%(K)
耐电压 Voltage Proof	极间Between Terminals 1.5Un(10s, 20 ± 5℃) 极壳之间Between Terminals And Case 3000V.AC(10s, 50Hz)
介质损耗 tg δ 0	0.0002
IR × Cn	≥ 15 000s(20℃, 100V.DC, 1min)
等效串联电阻 ESR(1KHz)	0.6mΩ
杂散电感 ESL	18nH
最大直流侧电流 Max Irms for DC	280A ≤ 1min
最大纹波电流值 Max ripple Irms	220A
额定功率 Rated power	198KW
最大功率 Max power	277KW
脉冲电流 Ip	6750A
浪涌电流 Is	13 000A
浪涌电压 Us	1400V.DC
爬电距离 Creepage distance	13mm
电气间隙 Clearance	13mm
最大电极扭矩 Max Torque of terminals	3.5Nm
预期寿命 Expected lifetime	100 000hours(UN, θ hotspot ≤ 70℃)
失效率 Failure rate	50Fit
尺寸 Dimension(L × W × H)	287mm × 130mm × 58mm

● θ case: 外壳温度;

● ESR: 电容器内部串联电阻总和;

● θ h.s= θ case + I_{rms} × R_s × R_{thhc}.

● θ case: Temperature of case.

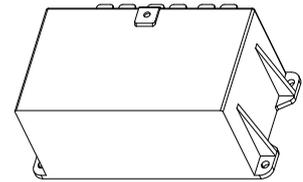
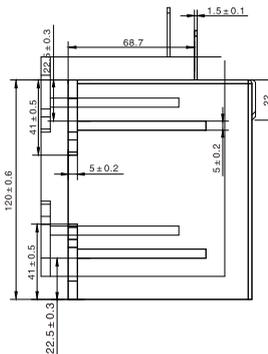
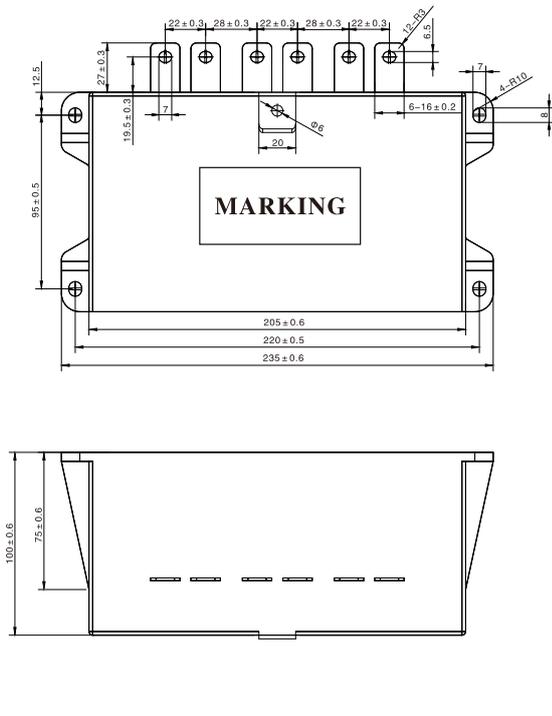
● ESR: The sum of all ohmic resistances occurring inside the capacitor

MKP-LB

车载方形DC-LINK滤波电容器
DC-LINK capacitor(box type) for Electric vehicles



外型及尺寸/Outline drawing



性能指标/Technical data

引用标准 Reference Standard	IEC61071:2007、GB/T17702-2013、SJ/T11614-2016、AEC-Q200D-2010
气候类别 Climatic Category	40/85/56
工作温度范围 Operating Temperature Range	最高定行温度105°C MAX. Setting Temperature 105°C
储存温度范围 Storage Temperature Range	-40°C ~ 105°C
额定电压 (Un)Rated Voltage	900V.DC
额定容量 (Cn)Rated Capacitance	1000 µF
电容量允许偏差 Capacitance Tolerance	±5%(J)
耐电压 Voltage Proof	极间Between Terminals 1.5Un(10s, 20±5°C) 极壳之间Between Terminals And Case 3000V.AC(10s, 50Hz)
介质损耗 tg δ 0	0.0002
IR × Cn	≥ 15 000s(20°C, 100V.DC, 1min)
等效串联电阻ESR(1KHz)	0.2mΩ
杂散电感ESL	25nH
最大直流侧电流 Max Irms for DC	280A ≤ 1min
最大纹波电流值 Max ripple Irms	220A
额定功率 Rated power	198KW
最大功率 Max power	277KW
脉冲电流 Ip	25KA
浪涌电流 Is	50KA
浪涌电压 Us	1400V.DC
爬电距离 Creepage distance	10mm
电气间隙 Clearance	10mm
最大电极扭矩 Max Torque of terminals	3.5Nm
预期寿命 Expected Lifetime	100 000hours(UN, θ hotspot ≤ 70°C)
失效率 Failure rate	50Fit
尺寸 Dimension(L × W × H)	205mm × 100mm × 120mm

● θ case: 外壳温度;

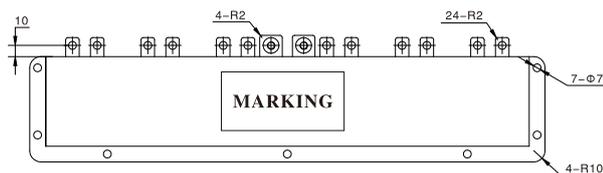
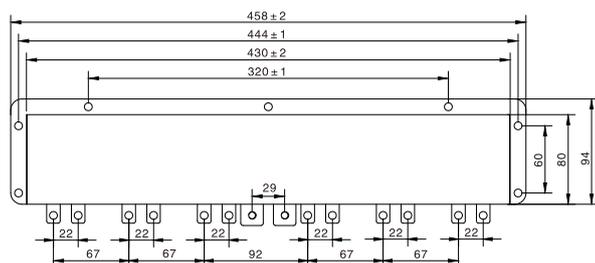
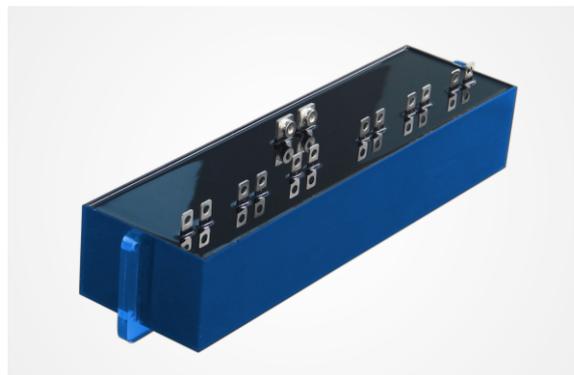
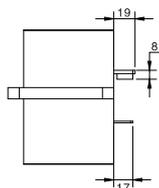
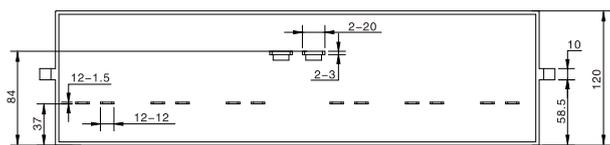
● ESR: 电容器内部串联电阻总和;

● θ h.s = θ case + I_{rms} × R_s × R_{thhc}.

● θ case: Temperature of case.

● ESR: The sum of all ohmic resistances occurring inside the capacitor

外型及尺寸/Outline drawing



性能指标/Technical data

引用标准 Reference Standard	IEC61071:2007、GB/T17702-2013、SJ/T11614-2016、AEC-Q200D-2010	
气候类别 Climatic Category	40/85/56	
工作温度范围 Operating Temperature Range	-40°C ~ 105°C	
储存温度范围 Storage Temperature Range	-40°C ~ 105°C	
额定电压 (Un)Rated Voltage	450V.DC	
额定容量 (Cn)Rated Capacitance	550 μF	
电容量允许偏差 Capacitance Tolerance	± 10%(K)	
耐电压 Voltage Proof	极间Between Terminals	1.5Un(10s, 20 ± 5°C)
	极壳之间Between Terminals And Case	3000V.AC(10s, 50Hz)
介质损耗 tg δ 0	0.0002	
IR × Cn	≥ 10 000s(20°C, 100V.DC, 1min)	
等效串联电阻ESR(1KHz)	0.8mΩ	
杂散电感ESL	20nH	
热阻(热点到外壳) Rthhc(θ hotspot to θ case)	1.0K/W	
最大直流侧电流 Max Irms for DC	200A	
最大纹波电流值 Max ripple Irms	130A	
额定功率 Rated power	58.5KW	
最大功率 Max power	87.7KW	
脉冲电流 Ip	2200A	
浪涌电流 Is	8800A	
浪涌电压 Us	600V.DC	
爬电距离 Creepage distance	9mm	
电气间隙 Clearance	9mm	
最大电极扭矩 Max Torque of terminals	5Nm	
预期寿命 Expected Lifetime	50 000hours(UN, θ hotspot=85°C)	
失效率 Failure rate	50Fit	
尺寸 Dimension(L × W × H)	195mm × 70mm × 75mm	
重量 Weight	≈ 1.0Kg	

● θ case: 外壳温度;

● ESR: 电容器内部串联电阻总和;

● $\theta_{h.s} = \theta_{case} + I_{rms}^2 \times R_s \times R_{thhc}$.

● θ case: Temperature of case.

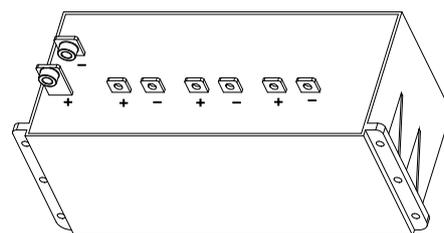
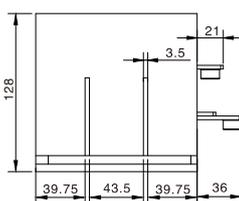
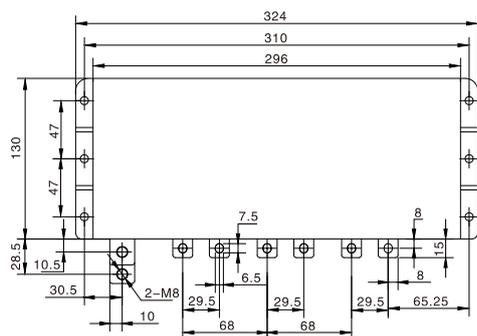
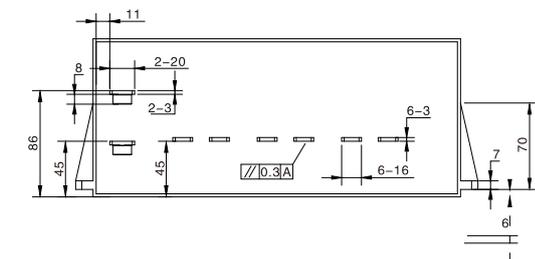
● ESR: The sum of all ohmic resistances occurring inside the capacitor

MKP-LB

车载方形DC-LINK滤波电容器
DC-LINK capacitor(box type) for Electric vehicles



外型及尺寸/Outline drawing



性能指标/Technical data

引用标准 Reference Standard	IEC61071:2007、GB/T17702-2013、SJ/T11614-2016、AEC-Q200D-2010	
气候类别 Climatic Category	40/85/56	
工作温度范围 Operating Temperature Range	最高定行温度105°C MAX. Setting Temperature 105°C	
储存温度范围 Storage Temperature Range	-40°C ~ 105°C	
额定电压 (Un)Rated Voltage	900V.DC	
额定容量 (Cn)Rated Capacitance	1900 µ F	
电容量允许偏差 Capacitance Tolerance	±5%(J)	
耐电压 Voltage Proof	极间Between Terminals	1.5Un(10s, 20 ± 5%)
	极壳之间Between Terminals And Case	3000V.AC(10s, 50Hz)
介质损耗 tg δ 0	0.0002	
IR × Cn	≥ 10 000s(20°C, 100V.DC, 1min)	
等效串联电阻ESR(1KHz)	0.4mΩ	
杂散电感ESL	18nH	
最大直流侧电流 Max Irms for DC	250A ≤ 2min	
最大纹波电流值 Max ripple Irms	260A	
额定功率 Rated power	234KW	
最大功率 Max power	351KW	
脉冲电流 Ip	9500A	
浪涌电流 Is	19KA	
浪涌电压 Us	1400V.DC	
爬电距离 Creepage distance	13.5mm	
电气间隙 Clearance	13.5mm	
最大电极扭矩 Max Torque of terminals	3.5Nm	
预期寿命 Expected Lifetime	100 000hours(UN, θ hotspot ≤ 70°C)	
失效率 Failure rate	50Fit	
尺寸 Dimension(L × W × H)	296mm × 128mm × 130mm	

● θ case: 外壳温度;

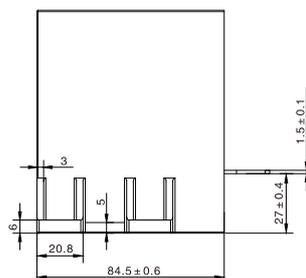
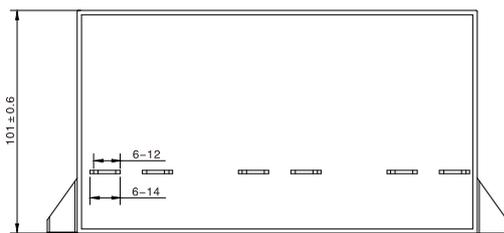
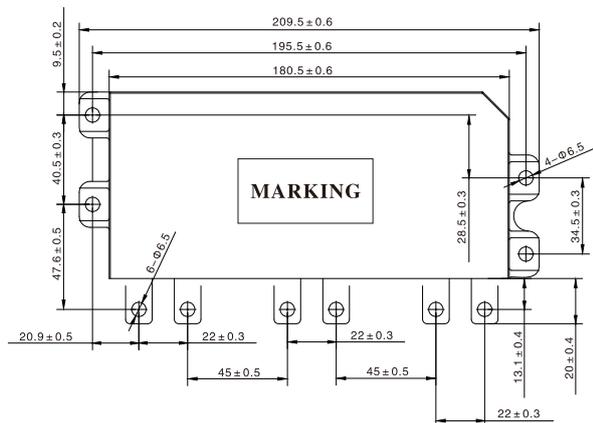
● ESR: 电容器内部串联电阻总和;

● θ h.s = θ case + I_{rms} × R_s × R_{thhc}.

● θ case: Temperature of case.

● ESR: The sum of all ohmic resistances occurring inside the capacitor

外型及尺寸/Outline drawing



性能指标/Technical data

引用标准 Reference Standard	IEC61071:2007、GB/T17702-2013、SJ/T11614-2016、AEC-Q200D-2010	
气候类别 Climatic Category	40/105/56	
工作温度范围 Operating Temperature Range	最高定行温度105°C MAX. Setting Temperature 105°C	
储存温度范围 Storage Temperature Range	-40°C ~ 105°C	
额定电压 (Un)Rated Voltage	800V.DC	
额定容量 (Cn)Rated Capacitance	560 µ F	
电容量允许偏差 Capacitance Tolerance	± 5%(J)	
耐电压 Voltage Proof	极间Between Terminals	1.5Un(10s, 20 ± 5°C)
	极壳之间Between Terminals And Case	3000V.AC(10s, 50Hz)
介质损耗 tg δ 0	0.0002	
IR × Cn	≥ 15 000s(20°C, 100V.DC, 1min)	
等效串联电阻ESR(1KHz)	0.35mΩ	
杂散电感ESL	22nH	
最大直流侧电流 Max.Irms for DC	275A ≤ 1min	
最大纹波电流值 Max ripple Irms	200A	
额定功率 Rated power	112KW	
最大功率 Max power	168KW	
脉冲电流 Ip	8000A	
浪涌电流 Is	1920A	
浪涌电压 Us	1300V.DC	
爬电距离 Creepage distance	14mm	
电气间隙 Clearance	10mm	
最大电极扭矩 Max Torque of terminals	3.5Nm	
预期寿命 Expected Lifetime	100 000hours(UN, θ hotspot ≤ 70°C)	
失效率 Failure rate	50Fit	
尺寸 Dimension(L × W × H)	180.5mm × 101mm × 84.5mm	

● θ case: 外壳温度;

● ESR: 电容器内部串联电阻总和;

● θ h.s.= θ case+I_{rms} × R_s × R_{thhc}.

● θ case: Temperature of case.

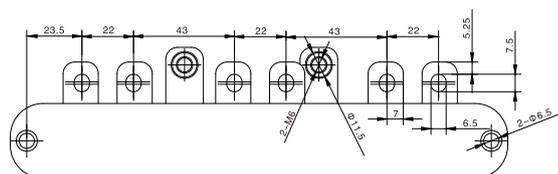
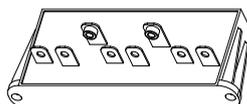
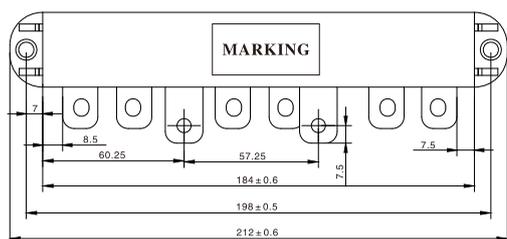
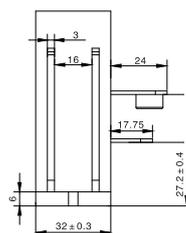
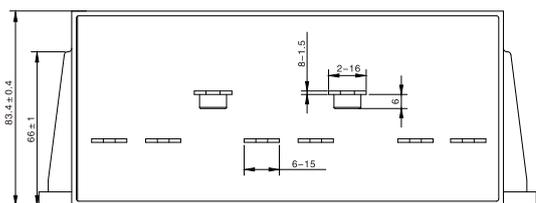
● ESR: The sum of all ohmic resistances occurring inside the capacitor

MKP-LB

车载方形DC-LINK滤波电容器
DC-LINK capacitor(box type) for Electric vehicles



外型及尺寸/Outline drawing



性能指标/Technical data

引用标准 Reference Standard	IEC61071:2007、GB/T17702-2013、SJ/T11614-2016、AEC-Q200D-2010
气候类别 Climatic Category	40/105/56
工作温度范围 Operating Temperature Range	最高定行温度105°C MAX. Setting Temperature 105°C
储存温度范围 Storage Temperature Range	-40°C ~ 105°C
额定电压 (Un)Rated Voltage	900V.DC
额定容量 (Cn)Rated Capacitance	110 μ F
电容量允许偏差 Capacitance Tolerance	± 10%(K)
耐压 Voltage Proof	极间Between Terminals 1.5Un(10s, 20 ± 5°C) 极壳之间Between Terminals And Case 3000V.AC(10s, 50Hz)
介质损耗 tg δ 0	0.0002
IR × Cn	≥ 15 000s(20°C, 100V.DC, 1min)
等效串联电阻ESR(1KHz)	0.8mΩ
杂散电感ESL	22nH
最大直流侧电流 Max Irms for DC	200A ≤ 1min
最大纹波电流值 Max ripple Irms	120A
额定功率 Rated power	108KW
最大功率 Max power	151KW
脉冲电流 Ip	2200A
浪涌电流 Is	5000A
浪涌电压 Us	1400V.DC
爬电距离 Creepage distance	8mm
电气间隙 Clearance	8mm
最大电极扭矩 Max Torque of terminals	3.5Nm
预期寿命 Expected Lifetime	100 000hours(UN, θ hotspot ≤ 70°C)
失效率 Failure rate	50Fit
尺寸 Dimension(L × W × H)	184mm × 83.4mm × 32mm

● θ case: 外壳温度;

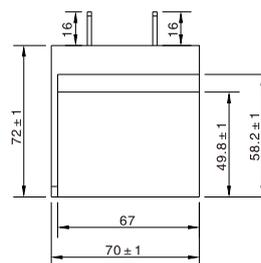
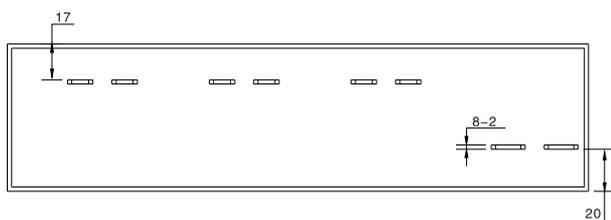
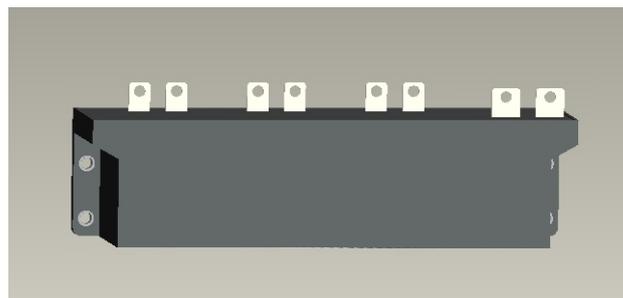
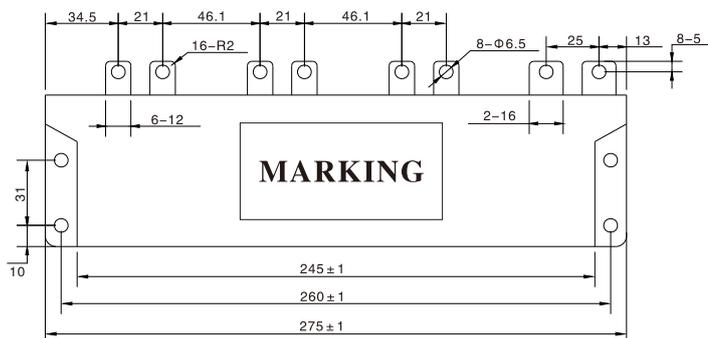
● ESR: 电容器内部串联电阻总和;

● θ h.s= θ case + I_{rms} × R_s × R_{thhc}.

● θ case: Temperature of case.

● ESR: The sum of all ohmic resistances occurring inside the capacitor

外型及尺寸/Outline drawing



性能指标/Technical data

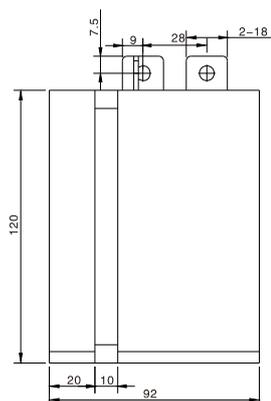
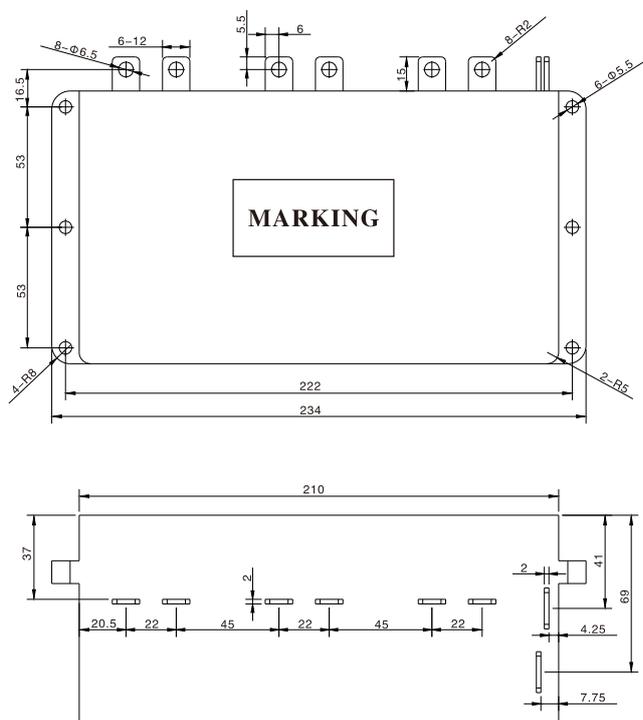
引用标准 Reference Standard	IEC61071:2007、GB/T17702-2013、SJ/T11614-2016、AEC-Q200D-2010	
气候类别 Climatic Category	40/105/56	
工作温度范围 Operating Temperature Range	最高定行温度105℃ MAX. Setting Temperature 105℃	
储存温度范围 Storage Temperature Range	-40℃ ~ 105℃	
额定电压 (Un)Rated Voltage	450V.DC	
额定容量 (Cn)Rated Capacitance	1000 μ F	
电容量允许偏差 Capacitance Tolerance	\pm 5%(J)	
耐电压 Voltage Proof	极间Between Terminals	1.5Un(10s, 20 \pm 5℃)
	极壳之间Between Terminals And Case	3000V.AC(10s, 50Hz)
介质损耗 tg δ 0	0.0002	
IR \times Cn	\geq 10 000s(20℃, 100V.DC, 1min)	
等效串联电阻ESR(1KHz)	0.5m Ω	
杂散电感ESL	20nH	
最大直流侧电流 Max.Irms for DC	210A \leq 1min	
最大纹波电流值 Max ripple Irms	150A	
额定功率 Rated power	67.5KW	
最大功率 Max power	101.2KW	
脉冲电流 Ip	10KA	
浪涌电流 Is	15KA	
浪涌电压 Us	900V.DC	
爬电距离 Creepage distance	9mm	
电气间隙 Clearance	9mm	
预期寿命 Expected Lifetime	100 000hours(UN, θ hotspot \leq 70℃)	
失效率 Failure rate	50Fit	
尺寸 Dimension(l \times W \times H)	245mm \times 70mm \times 72mm	
● θ case: 外壳温度;	● θ case: Temperature of case.	
● ESR: 电容器内部串联电阻总和;	● ESR: The sum of all ohmic resistances occurring inside	
● θ h.s.= θ case+I $_{rms}^2$ \times R $_s$ \times R $_{thc}$.	the capacitor	

MKP-LB

车载方形DC-LINK滤波电容器
DC-LINK capacitor(box type) for Electric vehicles



外型及尺寸/Outline drawing



性能指标/Technical data

引用标准 Reference Standard	IEC61071:2007、GB/T17702-2013、SJ/T11614-2016、AEC-Q200D-2010
气候类别 Climatic Category	40/105/56
工作温度范围 Operating Temperature Range	最高定行温度105°C MAX. Setting Temperature 105°C
储存温度范围 Storage Temperature Range	-40°C ~ 105°C
额定电压 (Un)Rated Voltage	800V.DC
额定容量 (Cn)Rated Capacitance	1000 µF
电容量允许偏差 Capacitance Tolerance	±5%(J)
耐压 Voltage Proof	极间Between Terminals 1.5Un(10s, 20 ± 5°C) 极壳之间Between Terminals And Case 3000V.AC(10s, 50Hz)
介质损耗 tg δ 0	0.0002
IR × Cn	≥ 15 000s(20°C, 100V.DC, 1min)
等效串联电阻ESR(1KHz)	0.4m Ω
杂散电感ESL	22nH
最大直流侧电流 Max Irms for DC	250A ≤ 1min
最大纹波电流值 Max ripple Irms	200 @ 85°C
额定功率 Rated power	160KW
最大功率 Max power	240KW
脉冲电流 Ip	5000A
浪涌电流 Is	7500A
浪涌电压 Us	1300V.DC
爬电距离 Creepage distance	14mm
电气间隙 Clearance	10mm
最大电极扭矩 Max Torque of terminals	3.5Nm
预期寿命 Expected Lifetime	100 000hours(UN, θ hotspot ≤ 70°C)
失效率 Failure rate	50Fit
尺寸 Dimension(L × W × H)	210mm × 92mm × 120mm

● θ case: 外壳温度;

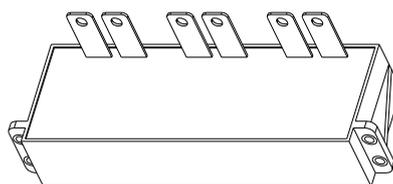
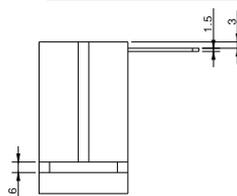
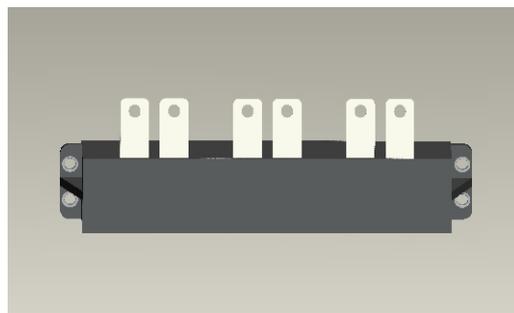
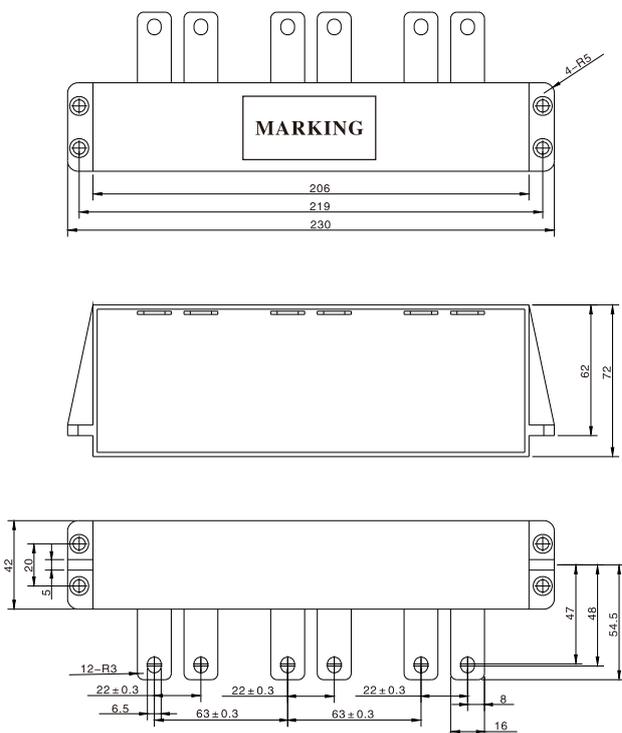
● ESR: 电容器内部串联电阻总和;

● θ h.s= θ case + I_{rms} × R_s × R_{thhc}.

● θ case: Temperature of case.

● ESR: The sum of all ohmic resistances occurring inside the capacitor

外型及尺寸/Outline drawing



性能指标/Technical data

引用标准 Reference Standard	IEC61071:2007、GB/T17702-2013、SJ/T11614-2016、AEC-Q200D-2010	
气候类别 Climatic Category	40/105/56	
工作温度范围 Operating Temperature Range	最高定行温度105°C MAX. Setting Temperature 105°C	
储存温度范围 Storage Temperature Range	-40°C ~ 105°C	
额定电压 (Un)Rated Voltage	450V.DC	
额定容量 (Cn)Rated Capacitance	300 μ F	
电容量允许偏差 Capacitance Tolerance	± 10%(K)	
耐电压 Voltage Proof	极间Between Terminals	1.5Un(10s, 20 ± 5°C)
	极壳之间Between Terminals And Case	3000V.AC(10s, 50Hz)
介质损耗 tg δ 0	0.0002	
IR × Cn	≥ 10 000s(20°C, 100V.DC, 1min)	
等效串联电阻ESR(1KHz)	0.4mΩ	
杂散电感ESL	22nH	
最大直流侧电流 Max.Irms for DC	225A ≤ 1min	
最大纹波电流值 Max ripple Irms	150A	
额定功率 Rated power	67.5KW	
最大功率 Max power	101.2KW	
脉冲电流 Ip	4500A	
浪涌电流 Is	6750A	
浪涌电压 Us	750V.DC	
爬电距离 Creepage distance	6mm	
电气间隙 Clearance	6mm	
最大电极扭矩 Max Torque of terminals	3.5Nm	
预期寿命 Expected Lifetime	100 000hours(UN, θ hotspot ≤ 70°C)	
失效率 Failure rate	50Fit	
尺寸 Dimension(L × W × H)	206mm × 72mm × 42mm	

● θ case: 外壳温度;

● ESR: 电容器内部串联电阻总和;

● θ h.s= θ case + I_{rms} × R_s × R_{thhc}.

● θ case: Temperature of case.

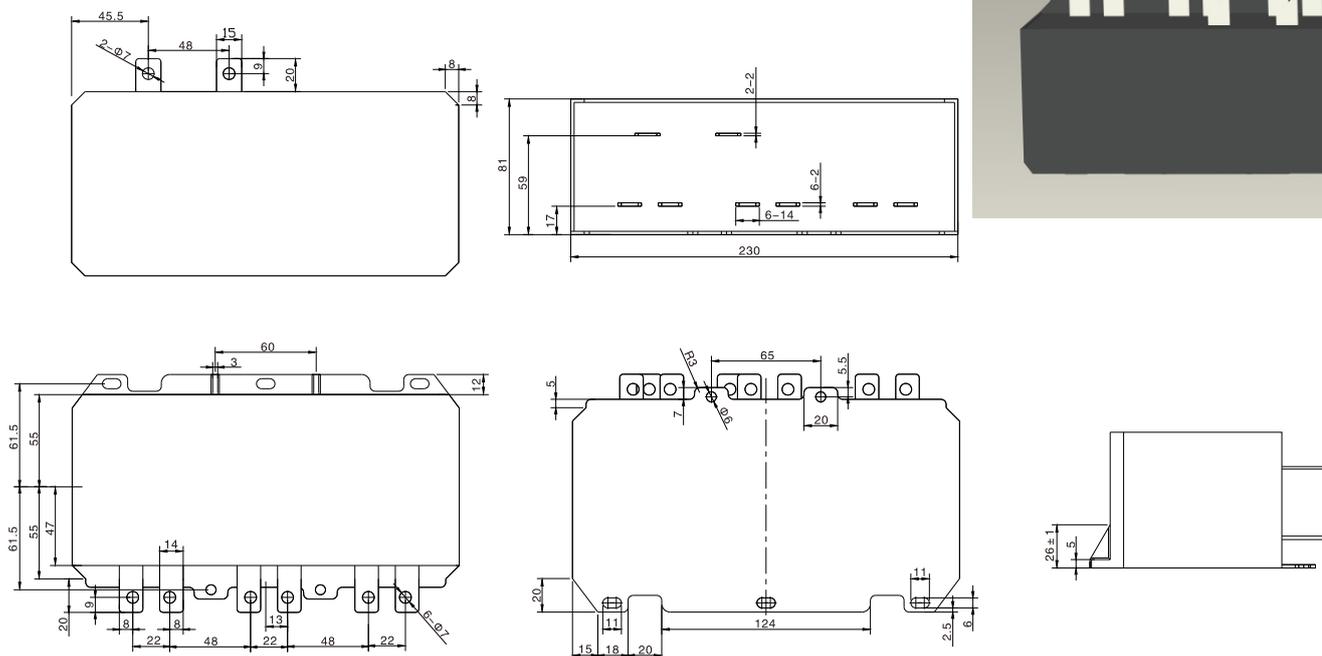
● ESR: The sum of all ohmic resistances occurring inside the capacitor

MKP-LB

车载方形DC-LINK滤波电容器
DC-LINK capacitor(box type) for Electric vehicles



外型及尺寸/Outline drawing



性能指标/Technical data

引用标准 Reference Standard	IEC61071:2007、GB/T17702-2013、SJ/T11614-2016、AEC-Q200D-2010	
气候类别 Climatic Category	40/105/56	
工作温度范围 Operating Temperature Range	最高定行温度105°C MAX. Setting Temperature 105°C	
储存温度范围 Storage Temperature Range	-40°C ~ 105°C	
额定电压 (Un)Rated Voltage	800V.DC	
额定容量 (Cn)Rated Capacitance	800 μ F	
电容量允许偏差 Capacitance Tolerance	± 10%(K)	
耐电压 Voltage Proof	极间Between Terminals	1.5Un(10s, 20 ± 5°C)
	极壳之间Between Terminals And Case	3000V.AC(10s, 50Hz)
介质损耗 tg δ 0	0.0002	
IR × Cn	≥ 10 000s(20°C, 100V.DC, 1min)	
等效串联电阻ESR(1KHz)	0.2mΩ	
杂散电感ESL	20nH	
最大直流侧电流 Max Irms for DC	500A ≤ 1min	
最大纹波电流值 Max ripple Irms	320A	
额定功率 Rated power	256KW	
最大功率 Max power	384KW	
脉冲电流 Ip	24KA	
浪涌电流 Is	36KA	
浪涌电压 Us	1300V.DC	
爬电距离 Creepage distance	10mm	
电气间隙 Clearance	6mm	
最大电极扭矩 Max Torque of terminals	3.5Nm	
预期寿命 Expected Lifetime	100 000hours(UN, θ hotspot ≤ 70°C)	
失效率 Failure rate	50Fit	
尺寸 Dimension(L × W × H)	230mm × 81mm × 110mm	

● θ case: 外壳温度;

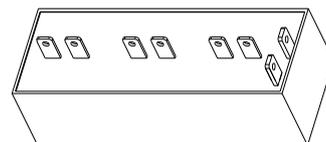
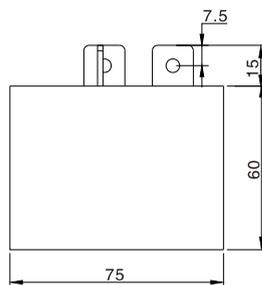
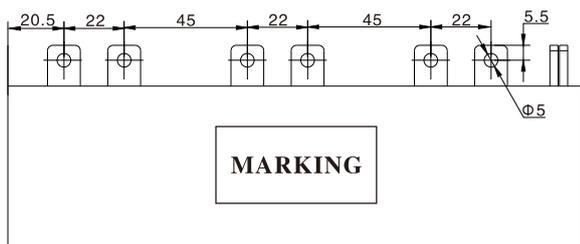
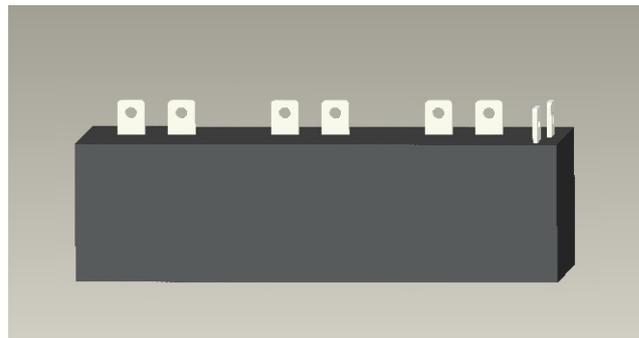
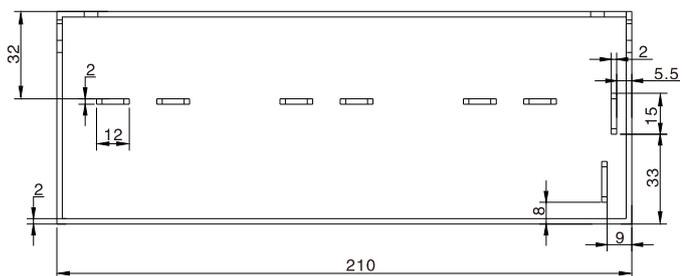
● ESR: 电容器内部串联电阻总和;

● θ h.s = θ case + I_{rms} × R_s × R_{thhc}.

● θ case: Temperature of case.

● ESR: The sum of all ohmic resistances occurring inside the capacitor

外型及尺寸/Outline drawing



性能指标/Technical data

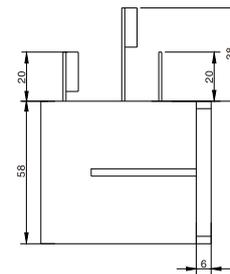
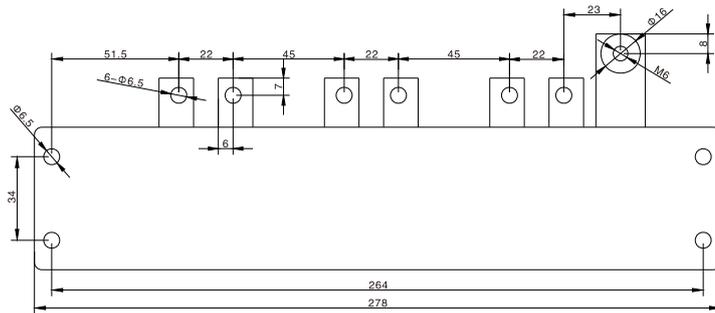
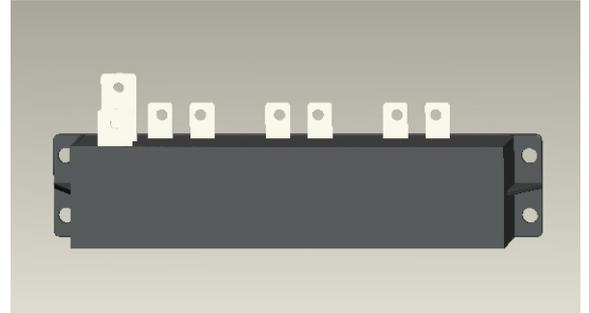
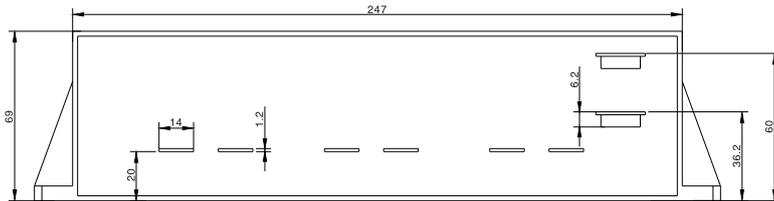
引用标准 Reference Standard	IEC61071:2007、GB/T17702-2013、SJ/T11614-2016、AEC-Q200D-2010	
气候类别 Climatic Category	40/105/56	
工作温度范围 Operating Temperature Range	最高定行温度105°C MAX. Setting Temperature 105°C	
储存温度范围 Storage Temperature Range	-40°C ~ 105°C	
额定电压 (Un)Rated Voltage	600V.DC	
额定容量 (Cn)Rated Capacitance	600 μ F	
电容量允许偏差 Capacitance Tolerance	± 5%(J)	
耐电压 Voltage Proof	极间Between Terminals	1.5Un(10s, 20 ± 5°C)
	极壳之间Between Terminals And Case	3000V.AC(10s, 50Hz)
介质损耗 tg δ 0	0.0002	
IR × Cn	≥ 10 000s(20°C, 100V.DC, 1min)	
等效串联电阻ESR(1KHz)	1.5mΩ	
杂散电感ESL	20nH	
最大直流侧电流 Max.Irms for DC	200A ≤ 1min	
最大纹波电流值 Max ripple Irms	120A	
额定功率 Rated power	72KW	
最大功率 Max power	108KW	
脉冲电流 Ip	6000A	
浪涌电流 Is	9000A	
浪涌电压 Us	1000V.DC	
爬电距离 Creepage distance	10mm	
电气间隙 Clearance	10mm	
预期寿命 Expected Lifetime	100 000hours(UN, θ hotspot ≤ 70°C)	
失效率 Failure rate	50Fit	
尺寸 Dimension(L × W × H)	210mm × 75mm × 60mm	
● θ case: 外壳温度;	● θ case: Temperature of case.	
● ESR: 电容器内部串联电阻总和;	● ESR: The sum of all ohmic resistances occurring inside	
● θ h.s.= θ case+I _{rms} × R _s × R _{thhc} .	the capacitor	

MKP-LB

车载方形DC-LINK滤波电容器
DC-LINK capacitor(box type) for Electric vehicles



外型及尺寸/Outline drawing



性能指标/Technical data

引用标准 Reference Standard	IEC61071:2007、GB/T17702-2013、SJ/T11614-2016、AEC-Q200D-2010	
气候类别 Climatic Category	40/105/56	
工作温度范围 Operating Temperature Range	最高定行温度105°C MAX. Setting Temperature 105°C	
储存温度范围 Storage Temperature Range	-40°C ~ 105°C	
额定电压 (Un)Rated Voltage	500V.DC	
额定容量 (Cn)Rated Capacitance	800 μ F	
电容量允许偏差 Capacitance Tolerance	± 10%(K)	
耐电压 Voltage Proof	极间Between Terminals	1.5Un(10s, 20 ± 5°C)
	极壳之间Between Terminals And Case	3000V.AC(10s, 50Hz)
介质损耗 tg δ 0	0.0002	
IR × Cn	≥ 10 000s(20°C, 100V.DC, 1min)	
等效串联电阻ESR(1KHz)	0.4mΩ	
杂散电感ESL	40nH	
最大直流侧电流 Max Irms for DC	250A ≤ 1min	
最大纹波电流值 Max ripple Irms	160A	
额定功率 Rated power	108KW	
最大功率 Max power	80KW	
脉冲电流 Ip	120A	
浪涌电流 Is	6400A	
浪涌电压 Us	800V.DC	
爬电距离 Creepage distance	10mm	
电气间隙 Clearance	10mm	
最大电极扭矩 Max Torque of terminals	3.5Nm	
预期寿命 Expected Lifetime	100 000hours(UN, θ hotspot ≤ 70°C)	
失效率 Failure rate	50Fit	
尺寸 Dimension(L × W × H)	247mm × 69mm × 58mm	

● θ case: 外壳温度;

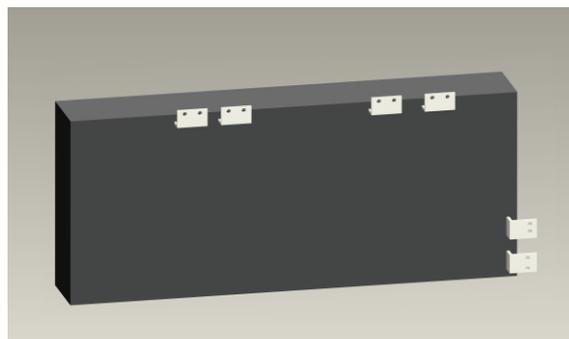
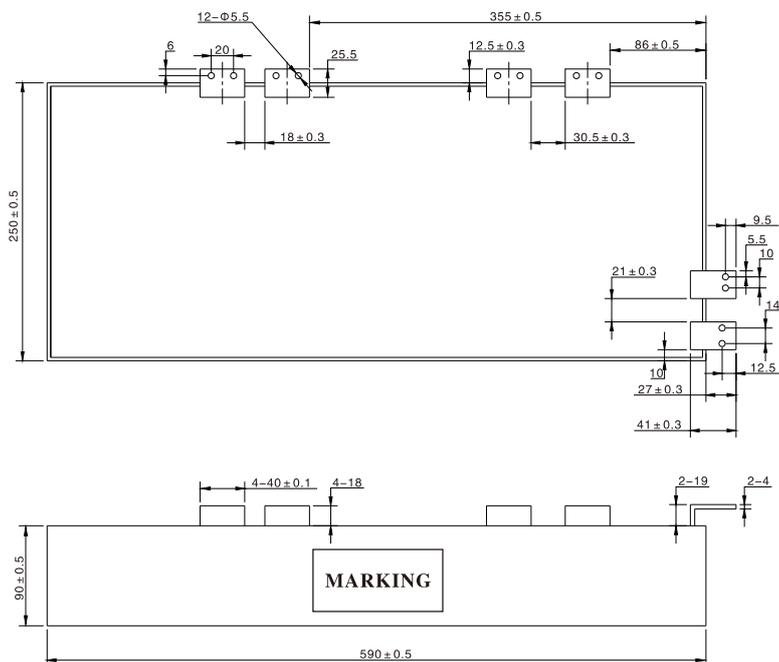
● ESR: 电容器内部串联电阻总和;

● θ h.s = θ case + I_{rms} × R_s × R_{thhc}.

● θ case: Temperature of case.

● ESR: The sum of all ohmic resistances occurring inside the capacitor

外型及尺寸/Outline drawing



性能指标/Technical data

引用标准 Reference Standard	IEC61071:2007、GB/T17702-2013、SJ/T11614-2016、AEC-Q200D-2010
气候类别 Climatic Category	40/105/56
工作温度范围 Operating Temperature Range	最高定行温度105°C MAX. Setting Temperature 105°C
储存温度范围 Storage Temperature Range	-40°C ~ 105°C
额定电压 (Un)Rated Voltage	1100V.DC
额定容量 (Cn)Rated Capacitance	4200 μF
电容量允许偏差 Capacitance Tolerance	± 5%(J)
耐电压 Voltage Proof	极间Between Terminals 1.5Un(10s, 20 ± 5°C) 极壳之间Between Terminals And Case 3000V.AC(10s, 50Hz)
介质损耗 tg δ 0	0.0002
IR × Cn	≥ 10 000s(20°C, 100V.DC, 1min)
等效串联电阻ESR(1KHz)	0.4mΩ
杂散电感ESL	25nH
最大直流侧电流 Max.Irms for DC	1000 (5min/30min)
最大纹波电流值 Max ripple Irms	580A
额定功率 Rated power	160KW
最大功率 Max power	638KW
脉冲电流 Ip	957KW
浪涌电流 Is	8400A
浪涌电压 Us	1800V.DC
爬电距离 Creepage distance	25mm
电气间隙 Clearance	18mm
最大电极扭矩 Max Torque of terminals	3.5Nm
预期寿命 Expected Lifetime	100 000hours(UN, θ hotspot ≤ 70°C)
失效率 Failure rate	50Fit
尺寸 Dimension(L × W × H)	590mm × 250mm × 90mm

● θ case: 外壳温度;

● ESR: 电容器内部串联电阻总和;

● θ h.s= θ case+I_{rms} × R_s × R_{thhc}.

● θ case: Temperature of case.

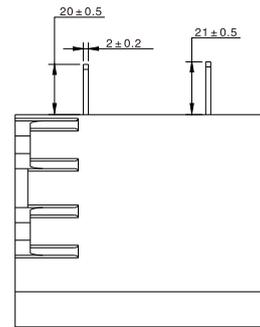
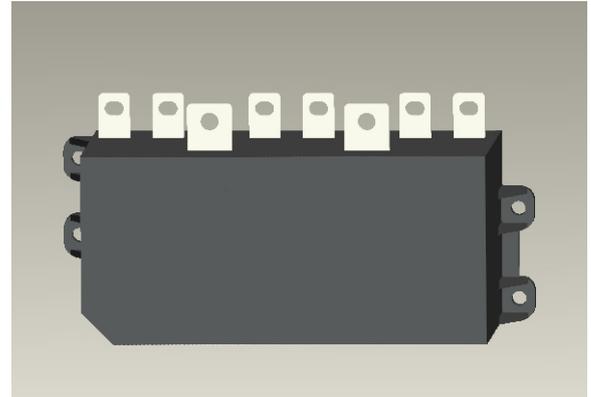
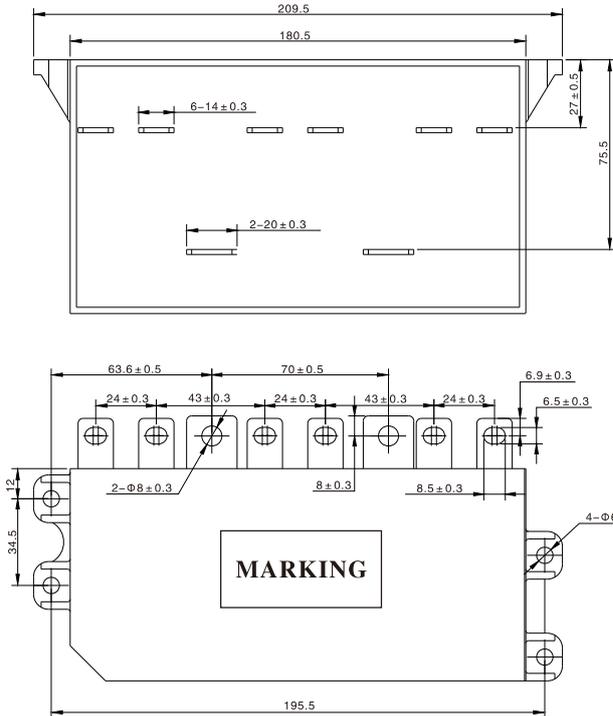
● ESR: The sum of all ohmic resistances occurring inside the capacitor

MKP-LB

车载方形DC-LINK滤波电容器
DC-LINK capacitor(box type) for Electric vehicles



外型及尺寸/Outline drawing



性能指标/Technical data

引用标准 Reference Standard	IEC61071:2007、GB/T17702-2013、SJ/T11614-2016、AEC-Q200D-2010
气候类别 Climatic Category	40/105/56
工作温度范围 Operating Temperature Range	最高定行温度105℃ MAX. Setting Temperature 105℃
储存温度范围 Storage Temperature Range	-40℃ ~ 105℃
额定电压 (Un)Rated Voltage	450V.DC
额定容量 (Cn)Rated Capacitance	900 μ F
电容量允许偏差 Capacitance Tolerance	± 5%(J)
耐电压 Voltage Proof	极间Between Terminals 1.5Un(10s, 20 ± 5℃) 极壳之间Between Terminals And Case 3000V.AC(10s, 50Hz)
介质损耗 tg δ 0	0.0002
IR × Cn	≥ 10 000s(20℃, 100V.DC, 1min)
等效串联电阻ESR(1KHz)	0.3mΩ
杂散电感ESL	25nH
最大直流侧电流 Max Irms for DC	300A ≤ 1min
最大纹波电流值 Max ripple Irms	200A
额定功率 Rated power	90KW
最大功率 Max power	135KW
脉冲电流 Ip	4500A
浪涌电流 Is	6750A
浪涌电压 Us	800V.DC
爬电距离 Creepage distance	14mm
电气间隙 Clearance	10mm
最大电极扭矩 Max Torque of terminals	3.5Nm
预期寿命 Expected Lifetime	100 000hours(UN, θ hotspot ≤ 70℃)
失效率 Failure rate	50Fit
尺寸 Dimension(L × W × H)	180.5mm × 101.5mm × 32mm

● θ case: 外壳温度;

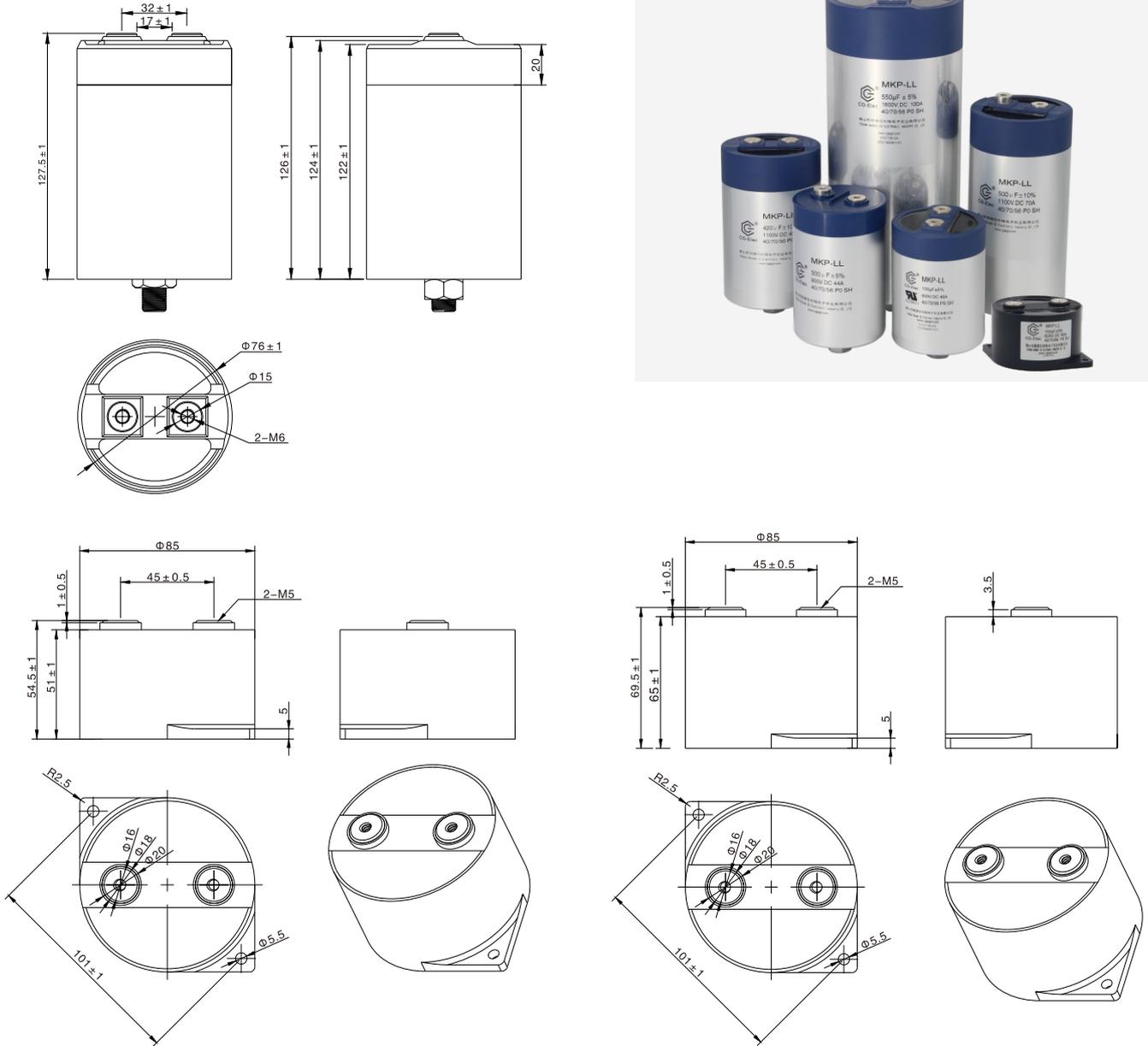
● ESR: 电容器内部串联电阻总和;

● θ h.s= θ case + I_{rms} × R_s × R_{thhc}.

● θ case: Temperature of case.

● ESR: The sum of all ohmic resistances occurring inside the capacitor

外型及尺寸/Outline drawing



技术参数/Technical parameters

Un=500V.DC@85°C/Un=600V.DC@70°C

Cn(μF)	Part number	ΦD(mm)	H(mm)	P(mm)	ESR(mΩ)	ESL(nH)	dv/dt(V/μs)	Ipk(A)	Irms(A)	Wt(kg)
150	C157060051101	85	51	45	1.0	30	15	2250	90	0.36

Un=800V.DC@85°C/Un=900V.DC@70°C

Cn(μF)	Part number	ΦD(mm)	H(mm)	P(mm)	ESR(mΩ)	ESL(nH)	dv/dt(V/μs)	Ipk(A)	Irms(A)	Wt(kg)
140	C147080051201	85	65	45	1.3	30	15	2100	82	0.45
300	C307090051102	76	122	32	2.0	40	5	1500	44	0.73

注：以上参数仅供参考，以实际图纸为准。

Note: the above parameters for reference only, see the drawing for details.

MKPH-SB

轴向类吸收电容器(扁形)
Metallized film snubber protection capacitor(ellipse)



产品介绍/Introduction

采用金属化聚丙烯薄膜进行无感式卷绕，特殊喷金工艺，迈拉胶带封装，阻燃环氧树脂灌封，镀锡铜线或软线引出。具有优秀的高频纹波吸收能力，高dv/dt，频率特性好，杂散电感小。产品广泛应用于电动车、混合动力汽车及其充电设备用作直流滤波及吸收保护。

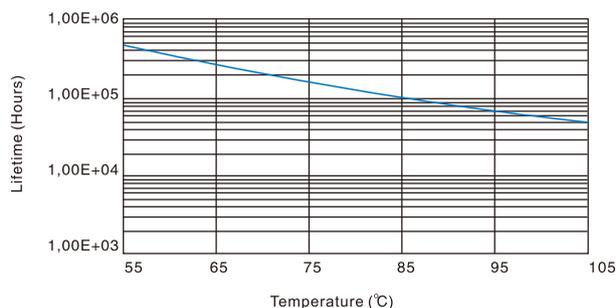
Non-inductive winding with metallized polypropylene film, special metal spray, Mylar tape encapsulation, flame retardant epoxy potting, tin plated copper wire, copper sheet or soft wire leads. Excellent high-frequency ripple absorption ability, high dv/dt, good frequency characteristic, low stray inductance. Widely used in electric vehicles, hybrid electric vehicles and charger for dc filter and protection.



性能指标/Technical data

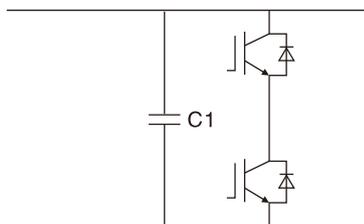
引用标准 Reference	GB/T17702, IEC61071
容量范围 Capacitance	0.01~6.8 μF
容量偏差 Capacitance Tol.	±5% (J), ±10%(K)
电压范围 Voltage	630V.DC~3000V.DC
极间耐压 U_{T-T}	1.5~1.75Un/60s
浪涌电压 Surge Voltage	2Un (t < 100ms)
损耗角正切 tg δ	tg δ ≤ 0.0008 (10kHz 20°C)
绝缘电阻 RiXcn	Cn ≤ 0.33 μF ≥ 15000MΩ Cn > 0.33 μF ≥ 10000s
耐电流冲击能力 dv/dt	> 200V/μs
气候类别 Climatic Category	40/85/21 or 40/105/21
工作温度范围 Operating Temp.	-40°C~85°C/105°C
储存温度范围 Storage Temp.	-40°C~85°C
引出方式 Lead Methods	插针、软线
预期寿命 Lifetime Expectancy	100000h (θ h.s ≤ 85°C)
封装形式 Encapsulation	迈拉胶带，白色环氧

预期使用寿命/Lifetime expectancy for MKPH-SB

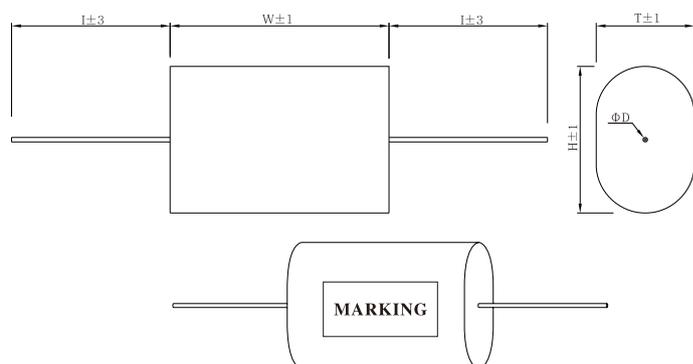


预期使用寿命/Lifetime Expectancy (hours)

典型线路图/Typical circuit



外型及尺寸/Outline drawing



Un=600/630V.DC

Cn(μF)	Part number	L(mm)	T(mm)	H(mm)	Φd(mm)	ESR(mΩ)	ESL(nH)	Dv/dt(V/μs)	Ipk(A)	Irms(A)	Wt(g)
0.47	C4740600311--	30	16.3	22.5	1	8.5	13	1000	470	10	10

Un=1200V.DC

Cn(μF)	Part number	L(mm)	T(mm)	H(mm)	Φd(mm)	ESR(mΩ)	ESL(nH)	Dv/dt(V/μs)	Ipk(A)	Irms(A)	Wt(g)
0.22	C2241200311--	30	13.4	19.7	1	10.9	13	1200	264	9	7
0.33	C3341200311--	30	17.1	23.4	1	7.2	15	1200	396	11	10
0.47	C4741200311--	32	17.2	23.5	1	8.5	15	1000	470	11	11

注：以上参数仅做参考，以实际图纸为准。

Note: the above parameters for reference only, see the drawing for details.

产品介绍/Introduction

采用金属化聚丙烯薄膜进行无感式卷绕，特殊喷金工艺，阻燃塑料壳或迈拉胶带封装，阻燃环氧树脂灌封，镀锡铜线、铜插片或铜螺母引出。具有体积小，电流大，温升高，杂散电感小，长寿命等优点，广泛应用于电动车、混合动力汽车及其充电设备用作直流滤波及吸收保护。

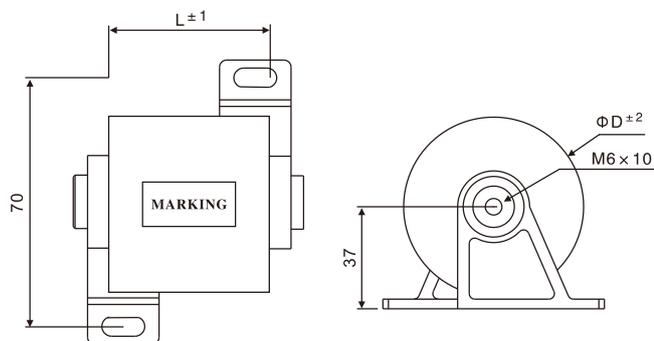
Non-inductive winding with metallized polypropylene film, special metal spray, flame retardant plastic shell or mylar tape encapsulation, flame retardant epoxy potting, tin plated copper wire, copper sheet or copper nut terminal. small size and large current, low temperature rise, low stray inductance, long lifetime, widely used in electric vehicles, hybrid electric vehicles and charger for dc filter and protection.

性能指标/Technical data

引用标准 Reference	GB/T17702, IEC61071
容量范围 Capacitance	1~150 μ F
容量偏差 Capacitance Tol.	$\pm 5\%$ (J), $\pm 10\%$ (K)
电压范围 Voltage	400V.DC~1600V.DC
极间耐压 U_{T-T}	1.5Un/10s 1.1Un (30% of on-load-dur.) 1.15Un (30min/day) 1.2Un (5min/day) 1.3Un (1min/day)
过电压 Over Voltage	
介质损耗角 $\text{tg } \delta_o$	$\text{tg } \delta_o \leq 0.0002$
绝缘电阻 $R_i X C_n$	$\geq 5000s$ (20 $^{\circ}$ C \pm 5 $^{\circ}$ C 100V.DC 60s)
耐电流冲击能力 dv/dt	$> 50V/\mu s$
气候类别 Climatic Category	40/85/21
工作温度范围 Operating Temp.	-40 $^{\circ}$ C~85 $^{\circ}$ C (θ h.s \leq 85 $^{\circ}$ C)
储存温度范围 Storage Temp.	-40 $^{\circ}$ C~85 $^{\circ}$ C
最大电极扭矩 Torque of terminals	M6:3.5N.m M8:6N.m
使用海拔 Max.Altitude	$< 4000m$
预期寿命 Lifetime Expectancy	100000h (θ h.s \leq 70 $^{\circ}$ C)
封装形式 Encapsulation	迈拉胶带或塑料外壳，黑色或白色环氧
阻燃性 Flame retardation	UL94V-0

注：海拔使用高度超过4000m，应该考虑海拔对冷却和绝缘的影响。

外型及尺寸/Outline drawing



$U_n=800V.DC$ $U_s=1300V.DC$ (100ms) $U_{tc}=2100V.AC/60s$

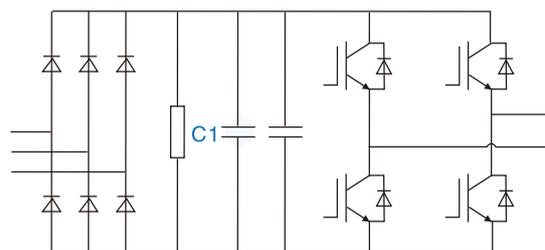
$C_n(\mu F)$	Part number	$\Phi D(mm)$	L(mm)	$R_{th}(K/W)$	ESR(m Ω)	ESL(nH)	$dv/dt(V/\mu s)$	$I_{pk}(A)$	$I_{rms}(A)$	Wt(g)
10	C1060800312--	42	40	3.4	3.6	25	60	600	35	96
20	C2060800312--	59	40	2.5	2.4	25	60	1200	50	150
30	C3060800312--	61	50	3.1	1.6	35	60	1800	55	187

注：以上参数仅供参考，以实际图纸为准。

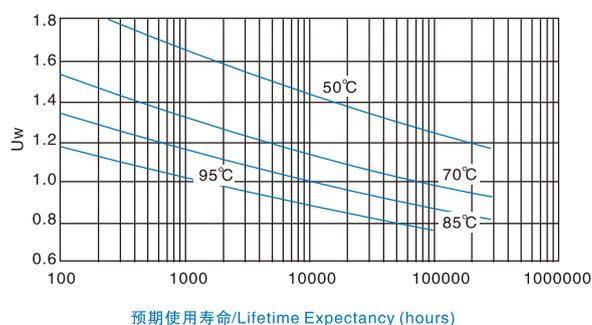
Note: the above parameters for reference only, see the drawing for details.



典型线路图/Typical circuit



预期使用寿命/Lifetime expectancy for MKP-LS

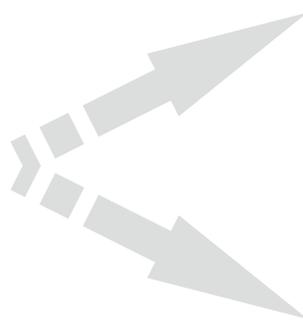


工作电压/ U_w : permanent working or operating DC-voltage

市场应用



高可靠设计理念
提供系统稳定运行的保障



<http://www.cgegd.com>

Innovation Lead the Future



家用电容器
Household appliance
capacitors
Tel:0757-28378927
Fax:0757-28378928

工业、商用电容器
Industrial&commercial
induction capacitors
Tel:0757-23619357
Fax:0757-28378928

消费类电容器
Consumptive capacitors
and filters:
Tel:0757-23619356
Fax:0757-28378928

技术支持
Technical Support
Tel:0757-28378933
网络销售 E-Marketing
Tel:0757-28378169

Contact

地址：广东佛山市顺德区容桂高新技术产业开发园新有东路7号
Add: No.7 East-Xinyou Rd. New-High Techn. Ind.
Shunde Foshan City Guangdong Province China
Tel:+86-757-28399722 Fax:+86-757-28370050
Postcode:528305
E-mail:cge@cgegd.com



▶▶ 本公司保留更改产品设计与规格的权利，届时恕不另行通知；本资料有关数据仅供参考，具体参数请以产品和说明为准
We reserve to change product designs and specifications at any time without notice; all information here is for reference only,
specific parameters should be subject to productions and instruction.