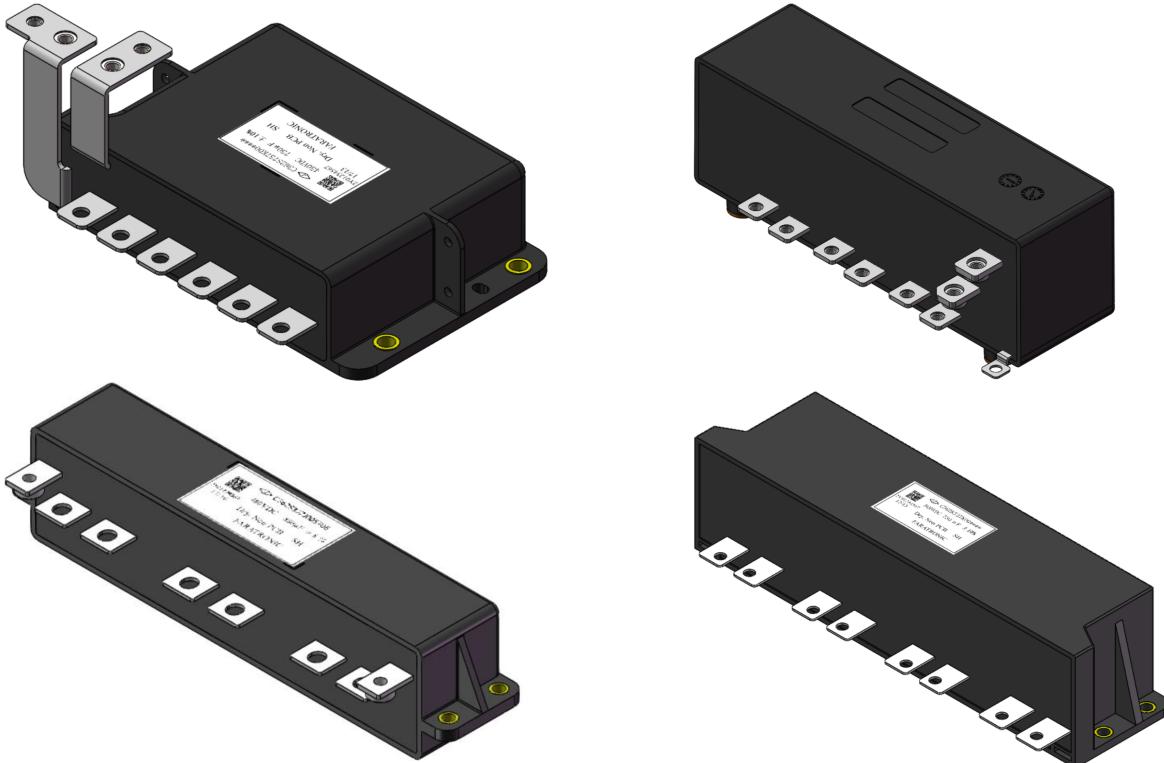


干式直流滤波电容器（定制品）

DC-Link Capacitor (Customized products)

■ 外形图 Outline Drawing



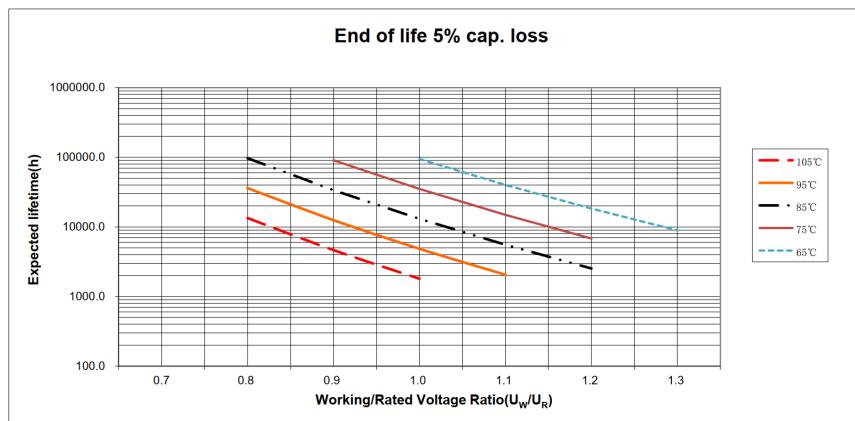
■ 特点

- 应用于直流滤波电路中，可替代电解电容
- 等效串联电阻小，能承受大的纹波电流
- 自感小
- 有自愈性
- 寿命长
- 树酯灌封

■ 应用场合

- 交通工具，如：电动车和混合动力车

■ 预期寿命曲线 Expected lifetime curve

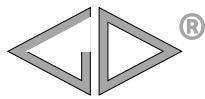


■ Features

- Used in DC-Link circuits, can replace electrolytic capacitor
- Low ESR, high ripple current handling capabilities
- Low L_s
- Self-healing property
- Long lifetime
- Filled with resin

■ Applications

- Transportation: EV or HEV



■ 产品代码 Part number

C362S757K0*****

■ 技术参数 Technical Data

引用标准 Reference Standard	GB/T 17702(IEC 61071)、AEC-Q200D-2010	
气候类别 Climatic Category	40/105/56	
工作温度范围 Operating temperature range	-40°C~105°C ($\theta_{hs} \leq 105^\circ\text{C}$)	
贮存温度范围 Storage temperature range	-40°C~105°C	
额定电压 (U _N) Rated voltage	450Vdc	
额定电容量 (C _N) Rated capacitance	750μF	
电容量偏差 Capacitance Tolerance	±10%(K)	
耐电压 Voltage Proof	极间 Between Terminals:	1.5U _N (10s, 20°C±5°C)
	极壳之间 Between Terminals And Case:	3 000Vac(10s, 50Hz, 20°C±5°C)
介质损耗角正切 (tanδ _d)	2×10^{-4}	
IR × C _N	≥10 000s (20°C, 100Vdc, 1min)	
等效串联电阻 ESR (10kHz)	≤0.36mΩ	
自感 L _s	≤16nH@1MHz (measure at center of holes)	
热阻(热点到外壳) R _{thhc} (θ _{hs} to θ _{case})	1.2K/W	
最大直流侧电流 Max. I _{rms} for DC	178A ($\theta_{amb} \leq 85^\circ\text{C}$, $\theta_{IGBT-terminal} \leq 95^\circ\text{C}$)	
最大纹波电流值 Max. ripple I _{rms}	120A (Continuous@10kHz, $\theta_{amb} \leq 85^\circ\text{C}$, $\theta_{IGBT-terminal} \leq 95^\circ\text{C}$)	
I	4 300A (t≤10μs, interval time≥1.3s)	
I _s	12 900A (≤30ms every time, 1 000 times during lifetime)	
U _s	600Vdc	
爬电距离 Creepage distance	≥5.5mm	
电气距离 Clearance	≥5.5mm	
预期寿命 Expected lifetime	参考预期寿命曲线 Refer to Expected lifetime curve	
失效率 Failure rate	50 FIT	
尺寸 Dimension(l×w×h)	164mm×106mm×43mm	
重量 Weight	≈1.1kg	

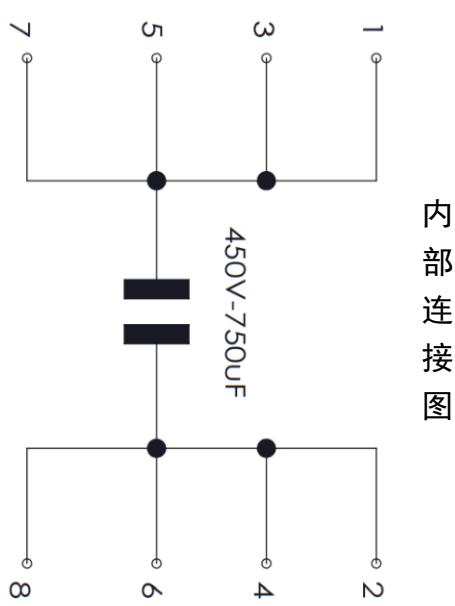
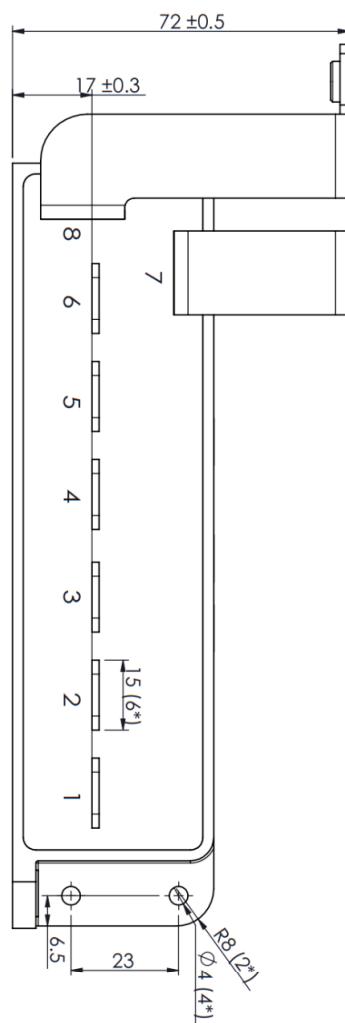
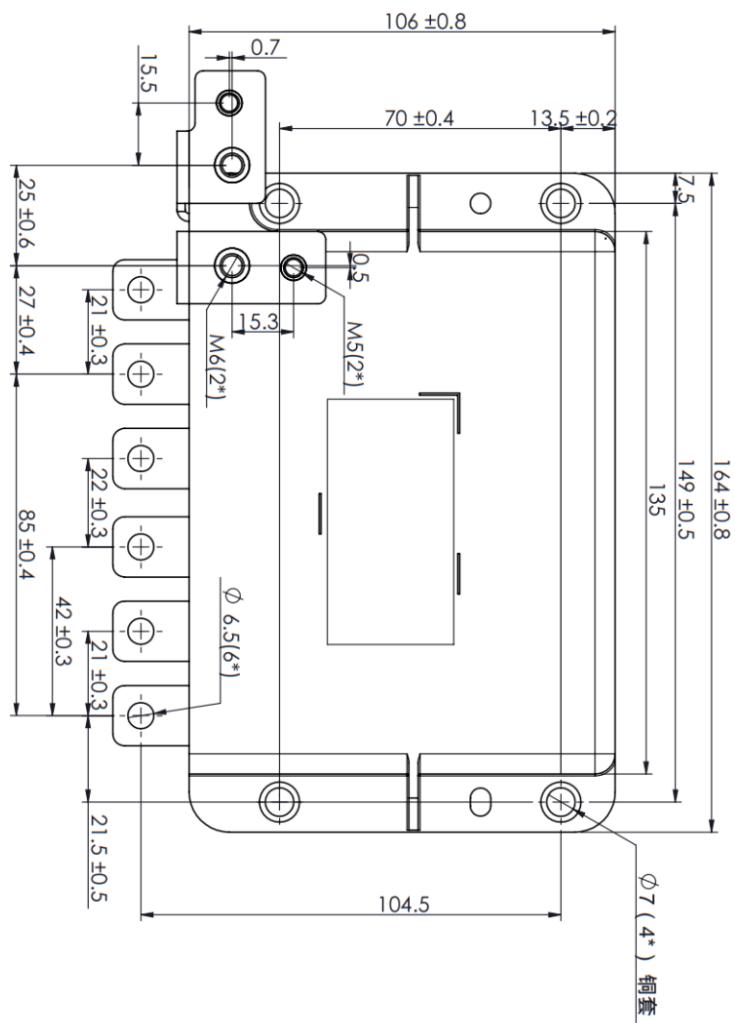
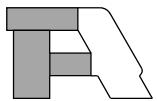
*θ_{case}: 外壳温度。*θ_{case}: Temperature of case.

*ESR: 电容器内部串联电阻总和。

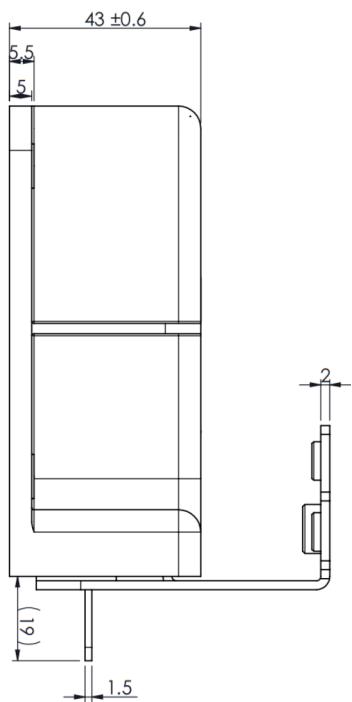
*ESR: The sum of all ohmic resistances occurring inside the capacitor.

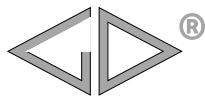
$$\ast\theta_{hs} = \theta_{case} + I_{rms}^2 \times ESR \times R_{thhc}$$

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内部连接图





C36

■ 产品代码 Part number

C362H857K2*****

■ 技术参数 Technical Data

引用标准 Reference Standard	GB/T 17702(IEC 61071)、AEC-Q200D-2010	
气候类别 Climatic Category	40/105/56	
工作温度范围 Operating temperature range	-40°C~105°C ($\theta_{hs} \leq 105^\circ\text{C}$)	
贮存温度范围 Storage temperature range	-40°C~105°C	
额定电压 (U_N) Rated voltage	450Vdc	
额定电容量 (C_N) Rated capacitance	850μF	
电容量偏差 Capacitance Tolerance	±10%(K)	
耐电压 Voltage Proof	极间 Between Terminals:	1.5 U_N (10s, 20°C±5°C)
	极壳之间 Between Terminals And Case:	3 000Vac(10s, 50Hz, 20°C±5°C)
	Y 电容极间 Between Terminals @ClassY:	3 000Vdc (2s, 25°C±5°C)
介质损耗角正切 ($\tan\delta_d$)	2×10^{-4}	
$IR \times C_N$	$\geq 10\ 000\text{s}$ (20°C, 100Vdc, 1min)	
等效串联电阻 ESR (10kHz)	$\leq 0.51\text{m}\Omega$	
自感 L_s	$\leq 15\text{nH}$ @1MHz (measure at center of holes)	
热阻(热点到外壳) $R_{thhc}(\theta_{hs} \text{ to } \theta_{case})$	2.5K/W	
最大直流侧电流 Max. I_{rms} for DC	199A ($\theta_{cool} \leq 65^\circ\text{C}$, $\theta_{amb} \leq 65^\circ\text{C}$)	
最大纹波电流值 Max. ripple I_{rms}	170A (Continuous @20kHz, $\theta_{cool} \leq 65^\circ\text{C}$, $\theta_{amb} \leq 65^\circ\text{C}$)	
\hat{I}	3 366A($t \leq 10\mu\text{s}$, interval time $\geq 0.5\text{s}$)	
\hat{I}_s	10 098A($\leq 30\text{ms}$ every time, 1 000 times during lifetime)	
U_s	667Vdc	
爬电距离 Creepage distance	$\geq 5.5\text{mm}$	
电气距离 Clearance	$\geq 5.5\text{mm}$	
预期寿命 Expected lifetime	参考寿命曲线 Refer to Expected lifetime curve	
失效率 Failure rate	50 FIT	
尺寸 Dimension(l×w×h)	203mm×68mm×60mm	
重量 Weight	$\approx 1.8\text{kg}$	

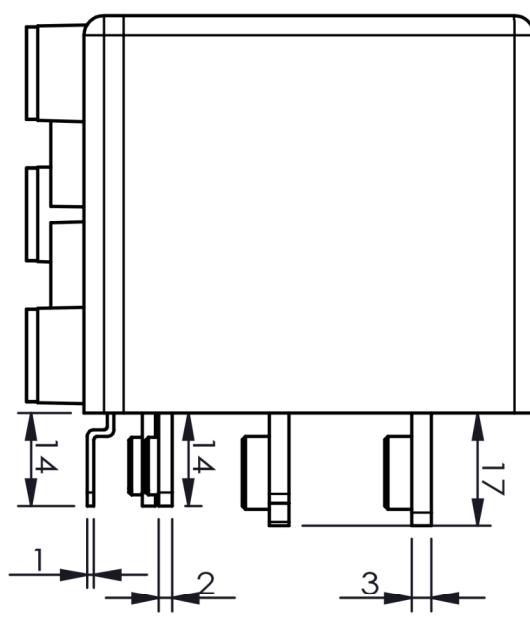
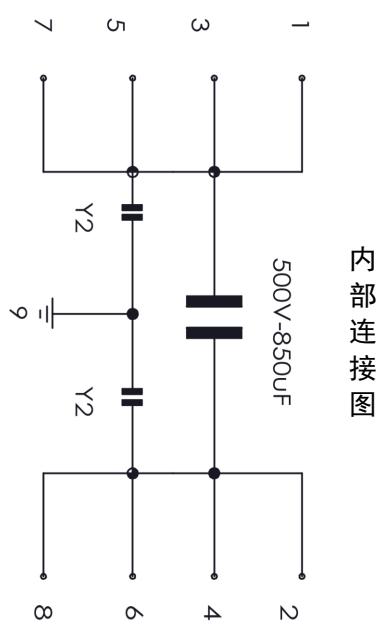
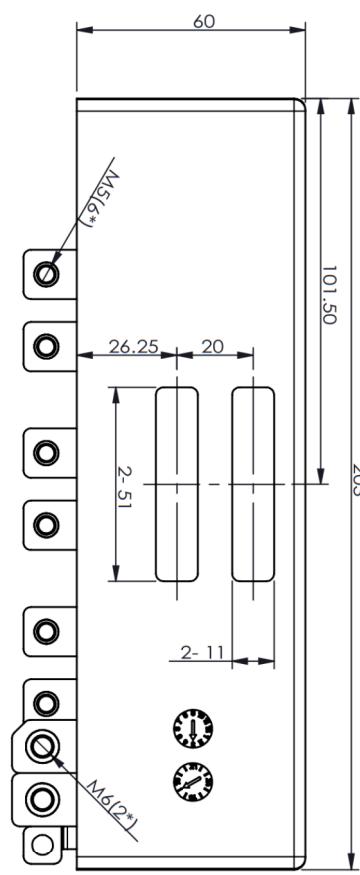
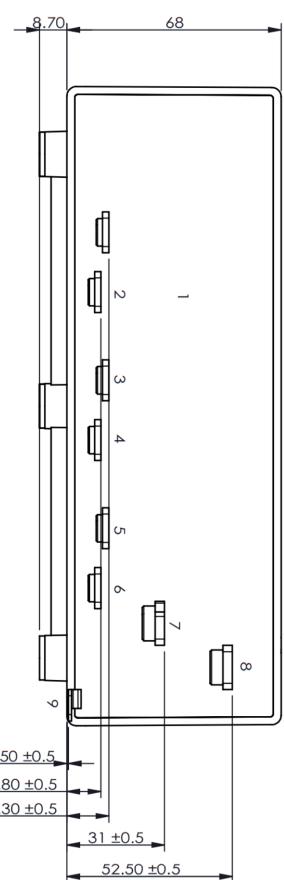
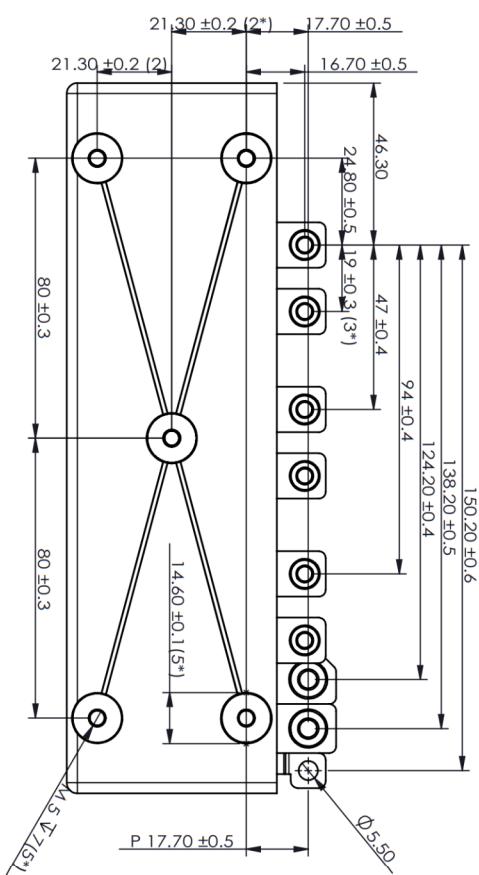
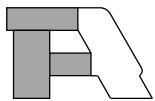
* θ_{case} : 外壳温度。* θ_{case} : Temperature of case.

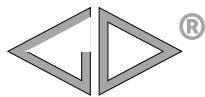
*ESR: 电容器内部串联电阻总和。

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

* $\theta_{hs} = \theta_{case} + I_{rms}^2 \times ESR \times R_{thhc}$.

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C36

■ 产品代码 Part number

C362S337J0*****

■ 技术参数 Technical Data

引用标准 Reference Standard	GB/T 17702(IEC 61071)、AEC-Q200D-2010	
气候类别 Climatic Category	40/105/56	
工作温度范围 Operating temperature range	-40°C~105°C ($\theta_{hs} \leq 105^\circ\text{C}$)	
贮存温度范围 Storage temperature range	-40°C~105°C	
额定电压 (U_N) Rated voltage	450Vdc	
额定电容量 (C_N) Rated capacitance	330μF	
电容量偏差 Capacitance Tolerance	±5%(J)	
耐电压 Voltage Proof	极间 Between Terminals:	1.5 U_N (10s, 20°C±5°C)
	极壳之间 Between Terminals And Case:	3 000Vac(10s, 50Hz, 20°C±5°C)
介质损耗角正切 ($\tan\delta_d$)	2×10^{-4}	
$IR \times C_N$	$\geq 10\ 000\text{s}$ (20°C, 100Vdc, 1min)	
等效串联电阻 ESR (10kHz)	$\leq 0.56\text{m}\Omega$	
自感 L_s	$\leq 15\text{nH}@1\text{MHz}$ (measure at center of holes)	
热阻(热点到外壳) $R_{thhc}(\theta_{hs} \text{ to } \theta_{case})$	3.5K/W	
最大直流侧电流 Max. I_{rms} for DC	100A ($\theta_{cool} \leq 80^\circ\text{C}$, $\theta_{amb} \leq 85^\circ\text{C}$)	
最大纹波电流值 Max. ripple I_{rms}	85A (Continuous @20kHz, $\theta_{cool} \leq 80^\circ\text{C}$, $\theta_{amb} \leq 85^\circ\text{C}$)	
\hat{I}	2 064A ($t \leq 10\mu\text{s}$, interval time $\geq 0.6\text{s}$)	
\hat{I}_s	6 191A ($\leq 30\text{ms}$ every time, 1 000 times during lifetime)	
U_s	600Vdc	
爬电距离 Creepage distance	$\geq 6.9\text{mm}$	
电气距离 Clearance	$\geq 6.9\text{mm}$	
预期寿命 Expected lifetime	参考预期寿命曲线 Refer to Expected lifetime curve	
失效率 Failure rate	50 FIT	
尺寸 Dimension($l \times w \times h$)	228mm×41mm×80mm	
重量 Weight	$\approx 0.75\text{kg}$	

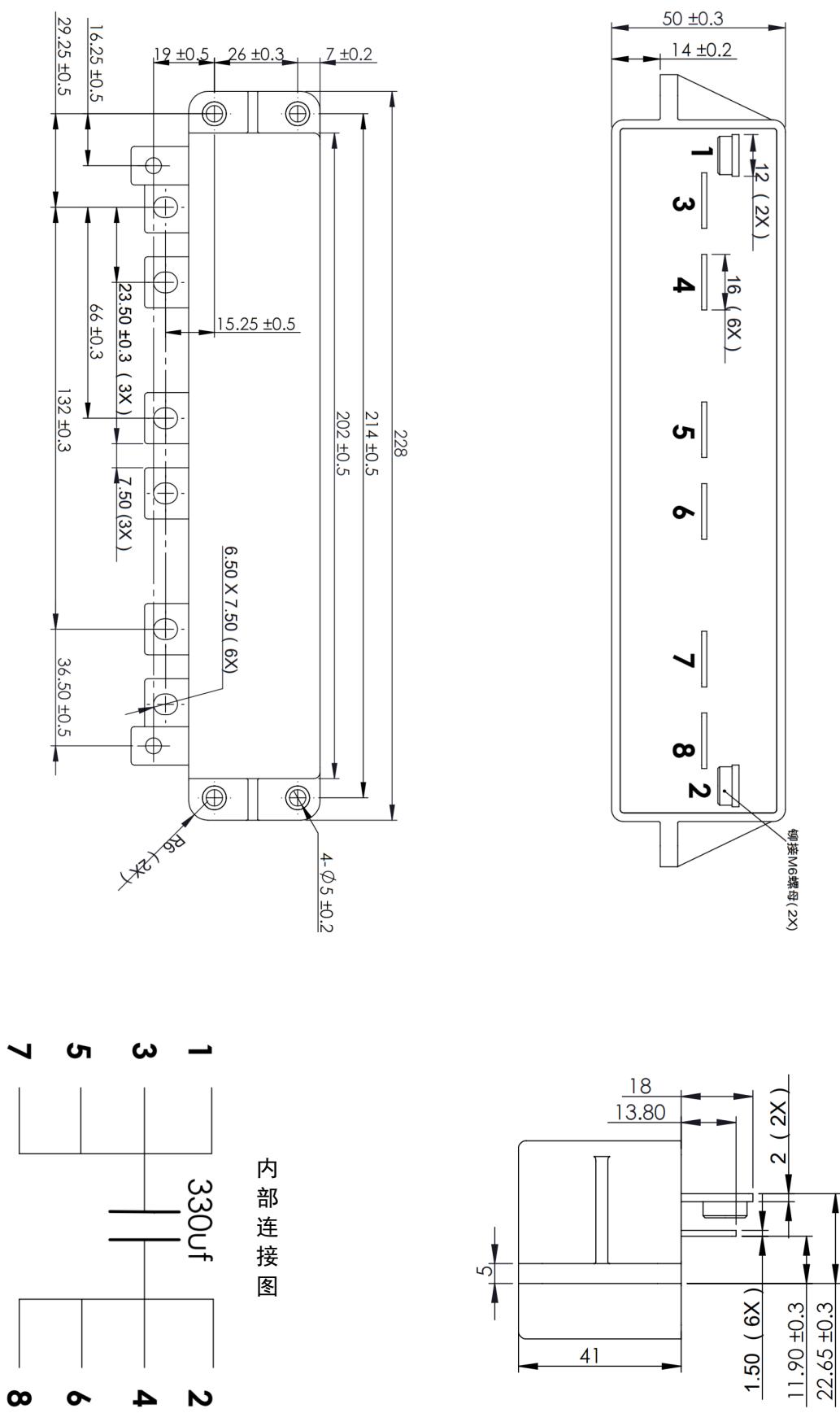
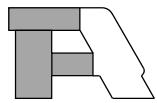
* θ_{case} : 外壳温度。* θ_{case} : Temperature of case.

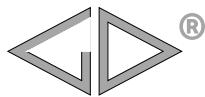
*ESR: 电容器内部串联电阻总和。

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

 $*\theta_{hs} = \theta_{case} + I_{rms}^2 \times ESR \times R_{thhc}$.

C36





C36

■ 产品代码 Part number

C362K737K0*****

■ 技术参数 Technical Data

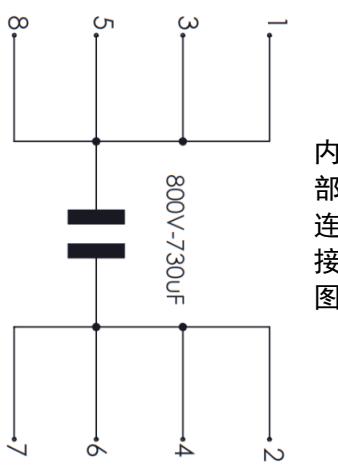
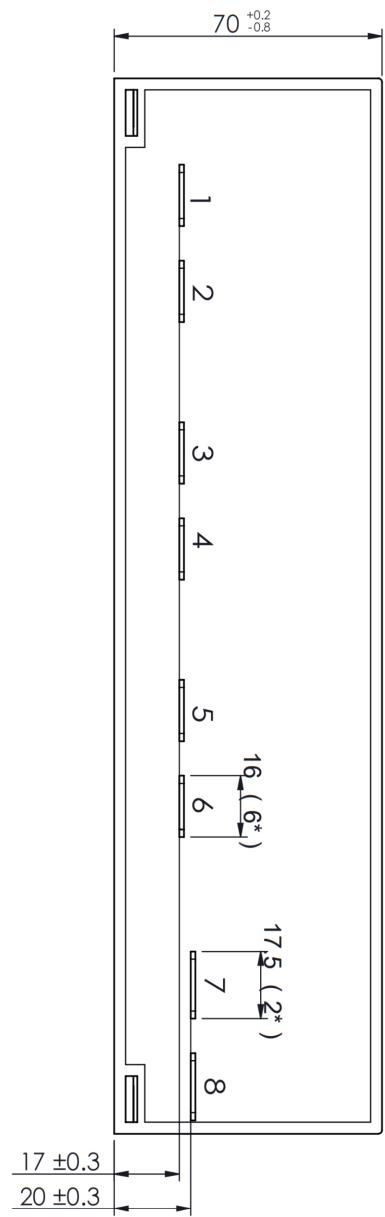
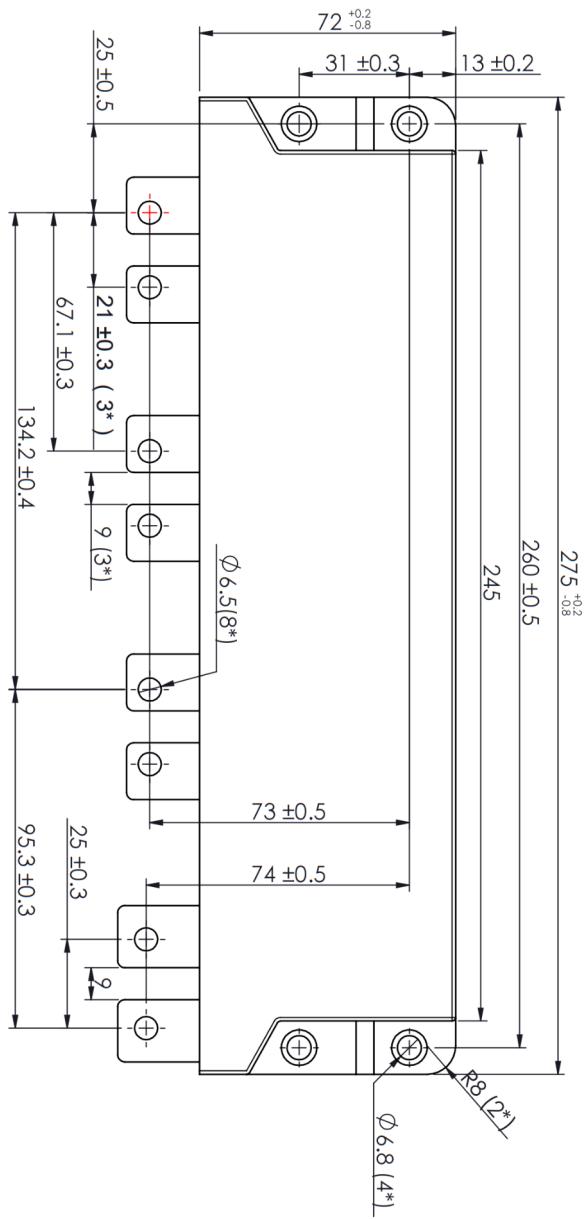
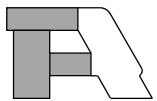
引用标准 Reference Standard	GB/T 17702(IEC 61071)、AEC-Q200D-2010	
气候类别 Climatic Category	40/105/56	
工作温度范围 Operating temperature range	-40°C~105°C ($\theta_{hs} \leq 105^\circ\text{C}$)	
贮存温度范围 Storage temperature range	-40°C~105°C	
额定电压 (U_N) Rated voltage	800Vdc	
额定电容量 (C_N) Rated capacitance	730μF	
电容量偏差 Capacitance Tolerance	±10%(K)	
耐电压 Voltage Proof	极间 Between Terminals:	1.5 U_N (10s, 20°C±5°C)
	极壳之间 Between Terminals And Case:	3 000Vac(10s, 50Hz, 20°C±5°C)
介质损耗角正切 ($\tan\delta_d$)	2×10^{-4}	
$IR \times C_N$	$\geq 10\ 000\text{s}$ (20°C, 100Vdc, 1min)	
等效串联电阻 ESR (10kHz)	$\leq 0.6\text{m}\Omega$	
自感 L_s	$\leq 25\text{nH}@1\text{MHz}$ (measure at center of holes)	
热阻(热点到外壳) $R_{thhc}(\theta_{hs} \text{ to } \theta_{case})$	1.6K/W	
最大纹波电流值 Max. ripple I_{rms}	150A (Continuous @20kHz, $\theta_{cool} \leq 85^\circ\text{C}$, $\theta_{amb} \leq 85^\circ\text{C}$)	
\hat{I}	5 000A ($t \leq 10\mu\text{s}$, interval time $\geq 1.2\text{s}$)	
\hat{I}_s	15 000A($\leq 30\text{ms}$ every time, 1 000 times during lifetime)	
U_s	1 067Vdc	
爬电距离 Creepage distance	$\geq 8.5\text{mm}$	
电气距离 Clearance	$\geq 8.5\text{mm}$	
预期寿命 Expected lifetime	参考预期寿命曲线 Refer to Expected lifetime curve	
失效率 Failure rate	50 FIT	
尺寸 Dimension(l×w×h)	275mm×72mm×70mm	
重量 Weight	$\approx 2.2\text{kg}$	

* 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 the capacitor.

$$\ast\theta_{hs} = \theta_{case} + I_{rms}^2 \times ESR \times R_{thhc}$$



内部连接图

