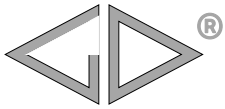
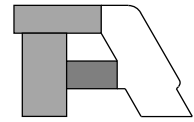


电力电子电容器 Capacitors for power electronics		
简介 General information		3
C3D	PCB 用 DC-Link 电容器 DC-Link Capacitor for PCB	15
C3D(R)	低高度设计 PCB 用 DC-Link 电容器 Low building height DC-Link Capacitor for PCB	24
C95	高耐温金属化薄膜车载电容器 Metallized High Temperature film Capacitor For Automotive	28
C3B	铝壳干式直流滤波电容器 DC-Link Capacitor (Dry-Type, Aluminum case)	30
C3B	铝壳干式直流滤波电容器 (小型化) DC-Link Capacitor (Dry-Type, Aluminum case, Miniature version)	41
C36	干式直流滤波电容器 (定制品) DC-Link Capacitor (Customized products)	51
C3N	干式直流滤波电容器 (定制品) DC-Link Capacitor (Customized products)	60
C3E	干式高压直流滤波电容器 High Voltage DC-Link Capacitor (Dry type)	65
C3L	PCB 用 DC-Link 电容器 DC-Link Capacitor for PCB	69
C38	IGBT 吸收电容器 (接线片) Snubber capacitor for IGBT (Lug terminals)	74
C3H	IGBT 吸收电容器 (PCB) Snubber capacitor for IGBT (PCB)	81
C16	IGBT 吸收电容器 (轴向) Snubber capacitor for IGBT (Axial-type)	89
C3G	干式高压、高脉冲电流吸收电容器 Snubber capacitor for high voltage, high current pulses (Dry type)	100
C3T	油式高压、高脉冲电流吸收电容器 Snubber capacitor for high voltage, high current pulses (Oil-filled type)	103
C3K	干式高压、高脉冲电流吸收电容器 (轴向) Snubber capacitor for high voltage, high current pulses (Dry type, Axial type)	106
C3S	金属化聚丙烯膜脉冲电容器 Metallized polypropylene film pulse capacitor	109
C6A	交流滤波电容器 (PCB) AC filter capacitor for PCB	112
C6M	油式单相交流滤波电容器 Oil-filled type single phase AC filter capacitor	124
C67	三相交流滤波电容器 (一体) Three phase AC filter capacitor (Single case)	138
C6S	干式无功功率补偿电容器 Dry type power factor correction capacitor	150
C6D	干式交流滤波电容器 (定制品) AC filter capacitor (Customized products)	160

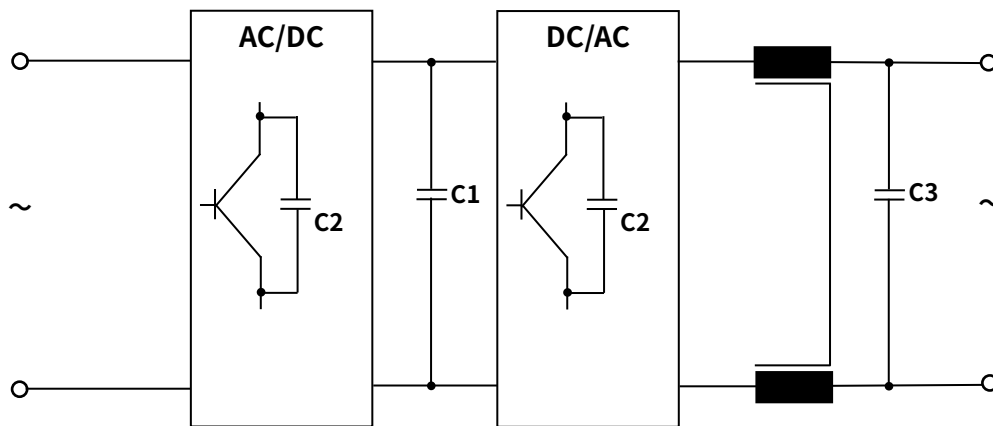


交流电动机电容器 AC Motor Capacitors		
简介 General Information		165
C6G	安全等级 S3(P2)的金属化聚丙烯交流电动机电容器 (塑料外壳) Safty class S3(P2)Metallized polypropylene film AC motor capacitor (B0x-type)	172
C61 (CBB61)	金属化聚丙烯膜交流电动机电容器 (塑料外壳) Metallized polypropylene film AC motor capacitor(Box-type)	175
C65 (CBB65)	金属化聚丙烯膜交流电动机电容器 (圆柱形、铝外壳、防爆) Metallized polypropylene film AC motor capacitor(column, aluminum case, anti-explosion)	184
灯具电容器 Capacitors for lamps		
简介 General Information		187
C62 (CBB60L)	金属化聚丙烯膜灯具电容器 Metallized polypropylene film capacitor for lamps	195
C63 (CBB60H)	金属化聚丙烯膜灯具电容器 (温度 105°C) Metallized polypropylene film capacitor for lamps(temperature 105°C)	198
C64 (CBB60M)	金属化聚丙烯膜灯具电容器 (温度 100°C) Metallized polypropylene film capacitor for lamps(temperature 100°C)	202
C6B	金属化聚丙烯膜灯具电容器 (圆形, 防爆) Metallized polypropylene film capacitor for lamps(round shape, anti-explosion)	206



电力电子电容器 Capacitors for power electronics

一、电容器选用指南 Guide for capacitors choosing



序号 No.	功能 Function	PCB 安装系列 For PCB mounting series	螺纹式、焊片式引出系列 Screw, lug terminals series
C1	直流滤波 DC Link	C3D, C95, C3L	C3B, C36, C3N, C3E
C2	IGBT 吸收 IGBT Snubber	C3H, C16, C82, C32 (Please refer to the PCB Catalogue for C82 & C32)	C38
C3	交流滤波 AC filter	C6A	C6M(单相 Single phase) C67(三相 Three phases) C6D(单相或三相, Single or Three phase)

其它系列 Other series

C3G: 插片式、螺栓式、螺孔式引出, 用于高压直流吸收滤波, 如 dV/dt 滤波器

Tabs, bolt, thread hole terminals, for high DC voltage snubber application, such as dV/dt filter

C3T: 螺栓式引出, 用于高压交流吸收滤波, 特别适用于缓冲器电路

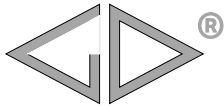
Bolt terminals, for high AC voltage snubber application, especially suitable for snubber circuits

C3K: 螺孔式、螺栓式引出, 用于 GTO 缓冲/吸收保护

Thread hole, bolt terminals, damper/snubber for GTO protection

C3S: 绝缘电子线引出, 用于除颤器或其它脉冲储能应用

Insulated wires, used in external defibrillator or pulse power applications



二、电力电子电容器的标准体系

电力电子电容器的主要标准是由中国国家标准化管理委员会发布的 GB/T 17702 和 GB/T 12747.1、GB/T 12747.2 (分别等同由 IEC 33 技术委员会 (电力电容器) 制定 IEC 61071, IEC 60831-1、IEC 60831-2)。

作为补充, 我司也引用了 GB/T 25121.1 (等效 IEC 61881-1)、GB/T 21563 (等同 IEC 61373) 和 AEC-Q200 等标准, 以满足铁路、汽车等特定场合的应用要求。

我司主要在上述标准的基础上制定了各个型号电力电子电容器的企业标准, 以供内部引用。

另外, 电力电子电容器的部分标准术语也参考了其它电容器标准中的定义, 不再一一列出。

以上, 构成了电力电子电容器的标准体系

电力电子电容器的标准体系, 举例如下:

二、The standard system of capacitors for power electronics

The main standards are GB/T 17702 and GB/T 12747.1&GB/T 12747.2, published by Standardization Administration of the people's republic of China. These standards are equal to IEC 61071, IEC 60831-1&IEC 60831-2, prepared by IEC technical committee 33: Power capacitors. As supplementary, Faratronic also refers to GB/T 25121.1 (IEC 61881-1 MOD), GB/T 21563 (IEC 61373 idt) and AEC-Q200 and so on, for railway or automobile applications.

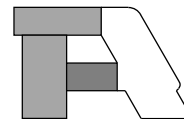
According to the basic requirements of above standards, Faratronic made detailed standards of various types of capacitors for internal use.

In additional, some terminologies are also reference to other capacitor standards, which will be not listed below.

The standard system of lamp capacitors is made up of all above standards.

Following, please find the corresponding specification lists for power electronics capacitors.

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 12747.1 (IEC 60831-1)	标称电压 1KV 及以下交流电力系统用自愈式并联电容器 第 1 部分: 总则—性能、试验和定额—安全要求—安装和运行导则 Shunt power capacitors of the self-healing type for a.c. systems having a rated voltage up to and including 1 000V Part 1: General - Performance, testing and rating - Safety requirements - Guide for installation and operation
GB/T 12747.2 (IEC 60831-2)	标称电压 1KV 及以下交流电力系统用自愈式并联电容器 第 2 部分: 老化试验、自愈性试验和破坏试验 Shunt power capacitors of the self-healing type for a.c. systems having a rated voltage up to and including 1 000V - Part 2: Ageing test, self-healing test and destruction test
GB/T 25121.1 (IEC 61881-1)	轨道交通 机车车辆设备 电力电子电容器 第 1 部分: 纸/塑料薄膜电容器 Railway applications - Rolling stock equipment - Capacitors for power electronics - Part 1: Paper/plastic film capacitors
GB/T 21563 (IEC 61373)	轨道交通 机车车辆设备 冲击和振动试验 Railway applications - Rolling stock equipment - Shock and vibration tests
JB/T 8168	脉冲电容器及直流电容器 Pulse capacitors and direct current capacitors
AEC-Q200	STRESS TEST QUALIFICATION FOR PASSIVE COMPONENTS
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 - Part 3 Classification of groups of environmental parameters and their severities - Section 1 Storage
GB/T 4798.2 (IEC 60721-3-2)	电工电子产品应用环境条件 第 2 部分 运输 Classification of environmental conditions - Part 3 Classification of groups of environmental parameters and their severities - Section 2 Transportation
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 - Part 3 Classification of groups of environmental parameters and their severities - Section 3 Stationary use at weatherprotected locations
	详细规范: Detail specification for each type.



三、常用的标准术语

1. 额定容量 C_N

电容器在 20°C/50~120Hz 下的设计电容量。

2. 额定电压 U_N

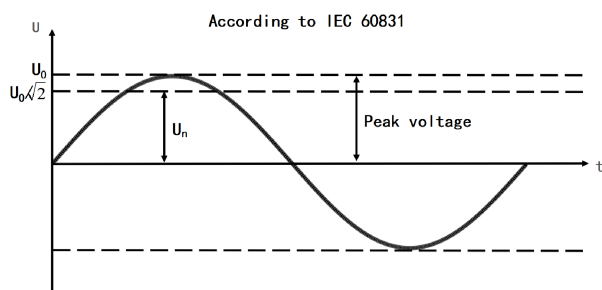
对采用 IEC 60831-1/-2 标准的电容器, 仅指设计电容器时规定的交流电压方均根值。

对采用 IEC 61071 标准的电容器, 可分为:

额定交流电压 U_N : 设计电容器时所采用的反转型波形的任一极性的最高运行峰值周期电压。

额定直流电压 U_{NDC} : 设计电容器时所采用的非反转型波形的任一极性的可连续运行的最高运行峰值电压。

若仅采用交流额定电压或直流额定电压, 可直接用 U_N 来表示; 若同时采用这两种额定电压, 需用 U_N 与 U_{NDC} 加以区分。



3. 有效值电压 U_{rms}

电容器在连续运行过程中允许出现的最大正弦交流电压的方均根值。

4. 纹波电压 U_r

单向电压的峰到峰的交流分量。

5. 非周期冲击电压 U_s

由切换或系统中任何别的扰动所导致的峰值电压, 此电压只允许出现有限的次数, 且每次持续时间应比基本周期短。

6. 绝缘电压 U_i

设计电容器时规定的电容器端子对外壳或对地交流电压的方均根值。若未作说明, 此绝缘电压等于额定电压除以 $\sqrt{2}$ 。

7. 最大电流 I_{max}

连续运行时的最大电流的方均根值。

三、Terminologies

1. Rated capacitance C_N

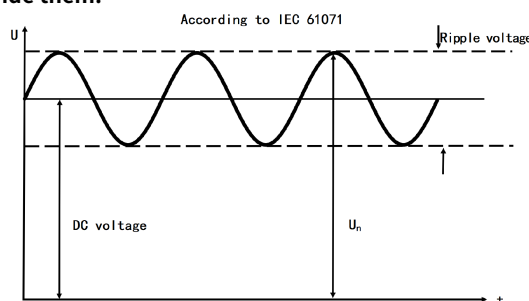
Designed capacitance of the capacitor at 20°C/50 to 120Hz.

2. Rated voltage U_N

For the capacitor referenced to IEC 60831-1/-2, it only means the r.m.s. value of a.c. voltage for which the capacitor has been designed.

For the capacitor referenced to IEC 61071, it is divided into, Rated a.c.voltage U_N : maximum operating peak recurrent voltage of either polarity of a reversing type waveform for which the capacitor has been designed.

Rated d.c.voltage U_{NDC} : maximum operating peak voltage of either polarity but of a non-reversing type waveform, for which the capacitor has been designed, for continuous operation. If just use rated a.c.voltage or rated d.c.voltage, U_N is useable. But if use both rated voltages, we should use both U_N and U_{NDC} to divide them.



3. rms voltage U_{rms}

Root mean square of max. permissible value of sinusoidal a.c. voltage in continuous operation.

4. Ripple voltage U_r

Peak-to-peak alternating component of the unidirectional voltage.

5. Non-recurrent surge voltage U_s

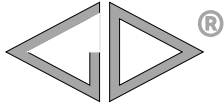
Peak voltage induced by a switching or any other disturbance of the system which is allowed for a limited number of times and for durations shorter than the basic period.

6. Insulation voltage U_i

rms value of a.c.voltage designed for the insulation between terminals of the capacitor to case or earth. The insulation voltage is equal to the rated voltage of the capacitor, divided by $\sqrt{2}$, unless otherwise specified.

7. Maximum current I_{max}

Maximum rms current for continuous operation.



8. 最大峰值电流 \hat{I}

在连续运行中允许重复出现的最大峰值电流。其数值为：

$$\hat{I}=C \times (dV/dt)$$

其中 C 为电容量, dV/dt 表示电压爬升速率, 即在运行中允许重复出现的最大电压爬升速率, 常用来代替 \hat{I} 使用。

9. 最大冲击电流 \hat{I}_s

由切换或系统中任何别的扰动所导致的允许出现的峰值电流, 此电流只允许出现有限的次数, 且每次持续时间应比基本周期短。

10. 串联电阻 R_s

在规定的运行条件下, 电容器的导体部分的等效电阻。串联电阻随温度升高而增大, 其电阻温度系数约为 0.004/°C, 近似公式为:

$$R_s(T_2)=[1+0.004 \times (T_2-T_1)] \times R_s(T_1)$$

11. 等效串联电阻 ESR

一个有效电阻, 当它和所探讨的电容器有相等电容值的理想电容器串联时, 在规定的运行条件下, 该电阻的损耗功率将等于该电容器中耗散的有功功率。

12. 介质损耗角正切 $\tan\delta_d$

电容器的介质材料在额定频率下的损耗常数。聚丙烯薄膜的典型介质损耗因素为 2×10^{-4} 。

13. 电容器的损耗角正切 $\tan\delta$

在规定频率的正弦波电压作用下, 电容器的损耗功率除以电容器的无功功率, 其值为等效串联电阻和容抗之比。

14. 介质损耗功率 P_d

电容器的电介质由于极化或电导引起的损耗, 其值为:

$$P_d=\hat{u}^2 \times \pi \times f_0 \times C \times \tan\delta_d$$

$$\text{直流电容器: } \hat{u}=U_r/2$$

$$\text{交流电容器: } \hat{u}=\sqrt{2} U_{rms}$$

$$\text{GTO 吸收电容器: } \hat{u}=U_{NDC}/2$$

f_0 : 施加在电容器上电压的基本频率

C: 电容量

15. 焦耳损耗功率 P_j

当电容器通过有效电流时, 由于串联电阻 R_s 发热而引起的损耗, 其值为:

$$P_j=I_{rms}^2 \times R_s$$

8. Maximum peak current \hat{I}

Maximum permitted repetitive peak current that can occur during continuous operation. The value is following:

$$\hat{I}=C \times (dV/dt)$$

Where C is capacitance and dV/dt indicates rate of voltage rise, which means maximum permitted repetitive rate of voltage rise of operational voltage, usually using instead of \hat{I} .

9. Maximum surge current \hat{I}_s

Peak non-repetitive current induced by swiyching or any other disturbance of the system which is allowed for a limited number of times, for durations shorted than basic period.

10. Series resistance R_s

Effective ohmic resistance of the conductors of a capacitor under specified operating conditions. It depends on temperature and the approximate TCR is 0.004/°C. The approximate formula is following,

$$R_s(T_2)=[1+0.004 \times (T_2-T_1)] \times R_s(T_1)$$

11. Equivalent series resistance ESR

Effective resistance which, if connected in series with an ideal capacitor of capacitance value equal to that of the capacitor in question, would have a power loss equal to active power dissipated in that capacitor under specified operating conditions.

12. Dielectric dissipation factor $\tan\delta_d$

Constant dissipation factor of the dielectric material for all capacitors at their rated frequency. The typical loss factor of polypropylene film is 2×10^{-4} .

13. Loss factor of the capacitor $\tan\delta$

The dissipation factor is ratio between reactive power of the impedance of the capacitor and effective power when capacitor is submitted to a sinusoidal voltage of specified frequency, it is that ratio between the equivalent series resistance and the capacitive reactance of a capacitor.

14. Dielectric power loss P_d

Loss power induced by dielectric polarization or dielectric Conductance. The value is following:

$$P_d=\hat{u}^2 \times \pi \times f_0 \times C \times \tan\delta_d$$

Where, for DC capacitors: $\hat{u}=U_r/2$

for AC capacitors: $\hat{u}=\sqrt{2} U_{rms}$

for GTO snubber capacitors: $\hat{u}=U_{NDC}/2$

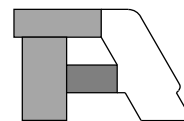
f_0 :fundamental frequency

C:capacitance

15. Joule power loss P_j

Loss power induced by series resistance of the capacitor under rms current.The value is following:

$$P_j=I_{rms}^2 \times R_s$$



16. 电容器的损耗功率 P_t

电容器所消耗的有功功率, 由介质损耗与焦耳损耗组成, 即 $P_t = P_d + P_j = I_{rms}^2 \times ESR$

17. 最大损耗功率 P_{max}

在最高运行温度下电容器可以承载的最大损耗功率。

18. 自感 L_s

电容器由于自身结构或组成的原因所表现出来的电感。

19. 谐振频率 f_r

电容器的阻抗成为最小时的最低频率。其值为:

$$f_r = 1 / (2\pi \times \sqrt{L_s \times C_N})$$

20. 额定频率 f_N

设计电容器时所规定的频率。

21. 运行温度 θ_{case}

在电容器达到热平衡状态时的外壳最热点处温度。

22. 最高运行温度 θ_{max}

电容器可以运行的最高外壳温度。

23. 最低运行温度 θ_{min}

电容器可以运行的最低电介质温度。

24. 冷却空气温度 θ_{amb}

在稳定状态条件下, 在电容器组最热区域的两单元之间中途所测得的空气温度。

如果仅涉及一单元。则指在离电容器外壳 10cm 且距其基底 2/3 高度处所测得的空气温度。

25. 外壳温升 $\Delta\theta_{case}$

外壳最热点温度和冷却空气温度之差。

26. 热阻 R_{th}

热阻表征的是电容器的发热功率每上升 1 瓦, 电容器内最热点的温度在环境温度 θ_{amb} 的基础上升高的度数。

R_{th} 由内部热点到外壳的热阻 R_{thhc} 与外壳到环境的热阻 R_{thca} 两部分组成。

27. 热点温度 θ_{hs}

电容器内部最热点处的温度。其值为:

$$\theta_{hs} = \theta_{amb} + P_t \times R_{th} \text{ 或者 } \theta_{hs} = \theta_{case} + P_t \times R_{thhc}$$

16. Capacitor losses P_t

Active power dissipated in the capacitor, consists of dielectric loss and joule loss., i.e. $P_t = P_d + P_j = I_{rms}^2 \times ESR$

17. Maximum power loss P_{max}

Maximum power loss at which the capacitor may be operated at the maximum case temperature.

18. Self-inductance L_s

Represents the sum of all inductive elements which are-for mechanical and construction reasons-contained in any capacitor.

19. Resonance frequency f_r

Lowest frequency at which the impedance of the capacitor becomes minimum. The value is following:

$$f_r = 1 / (2\pi \times \sqrt{L_s \times C_N})$$

20. Rated frequency f_N

Specified frequency for which the capacitor has been designed

21. Operating temperature θ_{case}

Temperature of the hottest point on the case of the operating capacitor in thermal equilibrium.

22. Maximum operating temperature θ_{max}

Highest temperature of the case at which the capacitor may be operated.

23. Lowest operating temperature θ_{min}

Lowest temperature of the dielectric at which the capacitor may be energized.

24. Cooling-air temperature θ_{amb}

Temperature of the air measured at the hottest position of the capacitor, under steady-state conditions, midway between two units.

If only one unit is involved, it is the temperature of surrounding air, measured 10cm away and at 2/3 of the case height of the capacitor under steady-state conditions.

25. Contained temperature rise $\Delta\theta_{case}$

Difference between the temperature of the hottest point of the container and the temperature of the cooling air.

26. Thermal resistance R_{th}

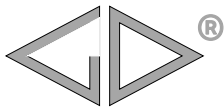
The thermal resistance indicates by how many degrees the capacitor temperature at the hotspot rises above θ_{amb} per watt of the heat dissipation loss.

R_{th} consists of R_{thhc} (thermal resistance from internal hotspot to case) and R_{thca} (thermal resistance from case to ambient).

27. Hotspot temperature θ_{hs}

Temperature at the hottest spot inside the capacitor. The value is following:

$$\theta_{hs} = \theta_{amb} + P_t \times R_{th} \text{ or } \theta_{hs} = \theta_{case} + P_t \times R_{thhc}$$



28. 容量温度系数 α

电容器在规定的温度范围内容量随温度的变化率。通常以 20°C 时电容量为参考, 用百万分之一每摄氏度 ($10^{-6}/^{\circ}\text{C}$) 表示。 ($10^{-6}/^{\circ}\text{C} = 1\text{ppm}/^{\circ}\text{C}$)

$$\alpha_i = \frac{C_i - C_0}{C_0(T_i - T_0)}$$

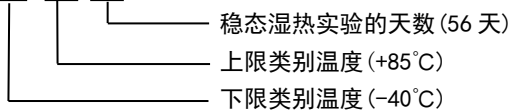
C_i : 电容器在温度 T_i 时容量

C_0 : 电容器在 $T_0(20 \pm 2)^{\circ}\text{C}$ 时的容量

29. 气候类别

电容器所属的气候类别用斜线分隔的三个数来表示 (IEC 60068-1: 如: 40/85/56)。

40 / 85 / 56



30. 绝缘电阻(IR)/时间常数(t)

绝缘电阻为电容器充电 1 分钟后所加的直流电压和流经电容器的漏电流值的比值, 单位为 $\text{M}\Omega$ 。时间常数为绝缘电阻和电容量的乘积, 通常以秒表示, 公式如下:

$$t[\text{s}] = \text{IR}[\text{M}\Omega] \times C_N[\mu\text{F}]$$

一般情况下, 绝缘电阻用于描述小容量电容器的绝缘特性, 时间常数用于描述大容量 (如: $C_N > 0.33\mu\text{F}$) 电容器的绝缘特性。

另外, 对于 1 分钟内无法充满电的更大容量的产品, 常选 5 分钟、10 分钟, 甚至更长时间作为充电时间, 或者由供需双方协商决定。

31. 自愈性(仅对金属化膜电容器)

电容器的电特性在发生局部电介质击穿后迅速而基本地恢复到击穿前的值的过程。

金属化膜的金属镀层是通过真空蒸发的方法将金属沉积在薄膜上, 厚度只有几十个纳米, 当介质上存在弱点、杂质时, 局部电击穿就可能发生, 电击穿处的电弧放电所产生的能量足以使电击穿点邻近处的金属镀层蒸发, 使击穿点与周围极板隔开, 电容器电气性能即可恢复正常。

32. 失效率 λ

表示元件在单位时间内发生失效的概率, 数值上等于单位时间内失效的元件数与元件总数的比值。其单位为 FIT (也写成 Fit 或 fit), $1\text{FIT} = 1/(10^9 \text{小时})$ 。

举例: 10 000 只元件在给定条件下工作 10 000 小时出现了 10 只失效, 则 $\lambda = 10 / (10\,000 \times 10\,000) = 100 \text{FIT}$ 。

28. Temperature coefficient of capacitance α

The change rate of capacitance with temperature measured over a specified range of temperature. It is normally expressed in parts per million per Celsius degree ($10^{-6}/^{\circ}\text{C}$) and referred to 20°C.

$$\alpha_i = \frac{C_i - C_0}{C_0(T_i - T_0)}$$

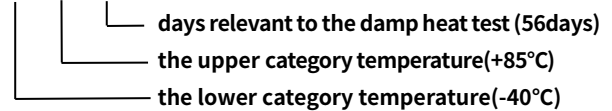
C_i : Capacitance at temperature T_i .

C_0 : Capacitance at temperature $T_0(20 \pm 2)^{\circ}\text{C}$.

29. Climatic category

The climatic category which the capacitor belongs to is expressed in three numbers separated by slashes, (IEC 60068-1: example 40/85/56).

40 / 85 / 56



30. Insulation Resistance(IR) / Time Constant (t)

The insulation resistance is the ratio between an applied D.C. voltage and the resulting leakage current after a minute of charge. It is expressed in $\text{M}\Omega$. The time constant is expressed in seconds with the following formula:

$$t[\text{s}] = \text{IR}[\text{M}\Omega] \times C_N[\mu\text{F}]$$

In general, Insulation resistance is used for describing smaller capacitance capacitors' insulation character, Time Constant for describing bigger one's (example: $C_N > 0.33\mu\text{F}$).

In addition, if the capacitor with larger capacitance couldn't fully charge in one minute, we may choose 5min, 10min, even longer time as charging time, or it is to be determined by both purchaser and manufacturer.

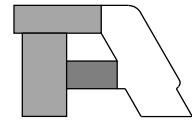
31. Self-healing(Only for metallized film capacitor)

Process by which the electrical properties of the capacitor, after a local breakdown of the dielectric, are rapidly and essentially restored to the values before the breakdown.

The metal coatings of the metallized film, which are vacuum-deposited directly onto the plastic film, have a thickness of only several tens nm. At weak points or impurities in the dielectric, a dielectric breakdown would occur. The energy released by the arc discharge in the breakdown channel is sufficient to totally evaporate the thin metal coating in the vicinity of the channel. The insulated region thus resulting around the former faulty area will cause the capacitor to regain its full operation ability.

32. Failure rate λ

It indicates the failure probability of components in unit time and the value is the number of failure components in unit time compared to the total number of components. The unit of λ is FIT (also expressed as Fit or fit) and $1 \text{FIT} = 1/(10^9 \text{ hrs})$. For example, 10 000 pcs of components work at given conditions for 10 000 hrs and 10 pcs of components failed, so $\lambda = 10 / (10\,000 \times 10\,000) = 100 \text{FIT}$.



四、电容器的预期寿命

电容器的预期寿命与电容器的运行电压及热点温度有关。对于应用在不同场合的电容器,它们的设计寿命是不同的。一般而言,应用在直流滤波电路中电容器,在额定电压及热点温度为 70°C 的应用条件下,它们的预期寿命可达到 100 000h。

电容器的预期寿命是一个基于实践经验和理论计算的统计学数值。以下图片是电容器的预期寿命与运行电压及热点温度之间的特性曲线,仅作为理论参考。对于工作条件与额定条件有差别的情况,可以联系我们的技术部门。

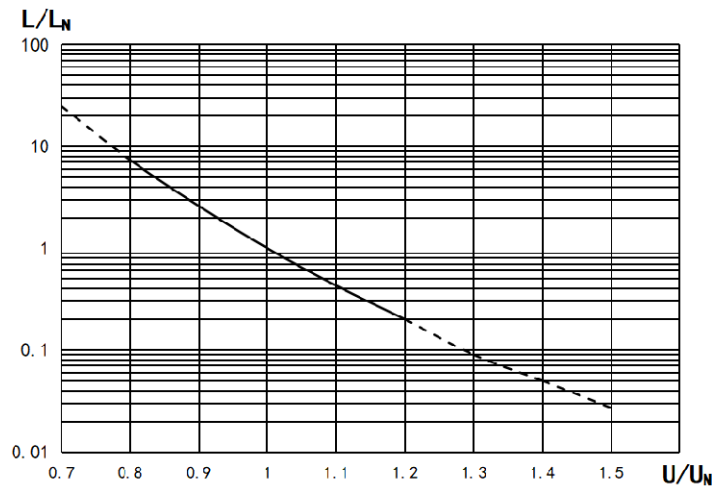
三、Expected lifetime of the capacitor

The expected lifetime of the capacitor depends on the applied voltage and the hot spot temperature during operation. For capacitors applied in different situation, the designed average service lifes are different. Generally speaking, capacitors used in DC-Link circuits will have a expected lifetime of probable 100 000h at rated voltage and 70°C hot spot temperature.

Expected lifetime is a statistical value calculated on the basis of experience and on theoretical evaluations. The following diagrams show the correlation between expected life, operating voltage and hot spot temperature. The diagrams should be considered only as a theoretical reference. Please consult our technical department in case of working condition different from the rated ones.

Expected life VS voltage

(The diagrams should be considered only as a theoretical reference)

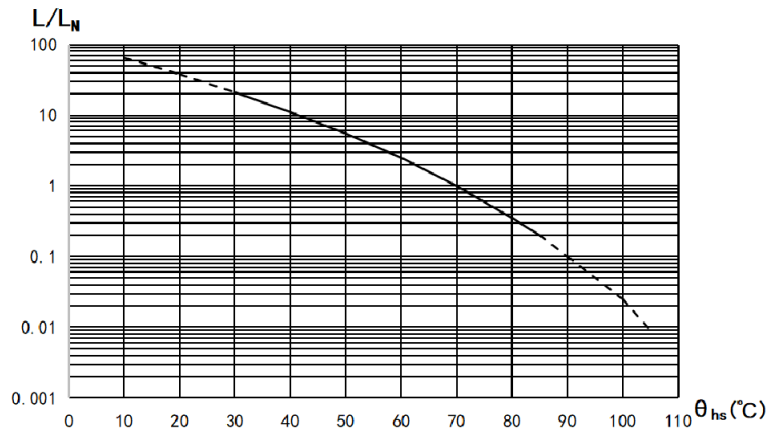


L_N : Expected life at rated voltage U_N

L: Expected life at voltage U

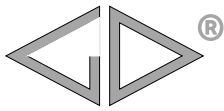
Expected life VS hot spot temperature at U_N

(The diagrams should be considered only as a theoretical reference)



L_N : Expected life at 70°C hot spot temperature

L: Expected life at θ_{hs} hot spot temperature



五、使用薄膜电容器的注意事项:

1. 工作电压:

薄膜电容器的选用取决于施加的最高电压，并受施加的电压波形、电流波形、频率、环境温度（电容器表面温度）、电容量等因数的影响。使用前请先检查电容器两端的电压波形、电流波形和频率（在高频场合，允许电压随着电容器类型的不同而改变，详细资料请参阅说明书）是否在额定值内。

2. 工作电流

通过电容器的脉冲（或交流）电流等于电容量 C 与电压上升速率的乘积，即 $I=C \times dV/dt$ 。

由于电容器存在损耗，在高频或高脉冲条件下使用时，通过电容器的脉冲（或交流）电流会使电容器自身发热而有温升，将会有热击穿（冒烟、起火）的危险。因此，电容器安全使用条件不仅受额定电压（或类别电压）的限制，而且受额定电流的限制。

工作电流被认为是由击穿模式决定的脉冲电流（峰值电流，即由 dV/dt 指标所限制的）和连续电流（以峰峰值或有效值表示）组成，当使用时，需确认这两个电流都在允许范围之内。

3. 各种波形的有效值换算关系

不同的波形有效值按下面的公式计算。

种类(type)	1	2	3	4
波形 (waveform)				
有效值(rms)	$E/\sqrt{2}$	$E/\sqrt{2}$	$E\sqrt{t/(2T)}$	$E/\sqrt{3}$

种类(type)	5	6	7	8
波形 (waveform)				
有效值(rms)	$E\sqrt{t/(3T)}$	E	$E\sqrt{t/T}$	$\sqrt{\frac{t}{2T}(E_1^2 + E_2^2 + E_3^2 + E_4^2)}$

五、Caution items in using plastic film capacitors

1. Operation voltage

The plastic film capacitor varies in the maximum applicable voltage depending on the applied voltage waveform, current waveform, frequency, ambient temperature (capacitor surface temperature), capacitance value, etc. Be sure to use capacitors within the specified values by checking the voltage waveform, current waveform, and frequency applied to them (In the application of high frequency, the permissible voltage varies with the type of the capacitor. For detail see the specification).

2. Operating Current

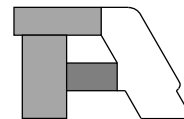
The pulse (or AC) current flowing through the capacitor is expressed as: $I=C \times dV/dt$.

Due to the fact that dissipation factor of the capacitor will generate the internal heat under the application of high frequency or high pulse current, temperature rise in it will occur and may cause deterioration of withstanding voltage, even lead to break down (smoking or firing). Therefore, the safety use of capacitor must be within the rated voltage (or category voltage) and the permissible current.

The operating current must be considered by dividing into pulse current (peak current) and continuous current (rms current) depending on the break down mode, and when using, should make sure the both currents are within the permissible values.

3. Calculation of rms in various waveforms

In each waveform, calculate the rms value in the following formula.



4. 电容器充放电

由于电容器充放电电流取决于电容量和电压上升率的乘积，即使是低电压充放电，也可能产生大的瞬间充放电电流，这可能会导致电容器性能的损害，比如说短路或开路。当进行充放电时，请串联一个 $20\Omega/V \sim 1\,000\Omega/V$ 或更高的限流电阻，将充放电电流限制在规定的范围内。

当多个薄膜电容器并联进行耐电压测试或寿命测试时，请为每个电容器串联一个 $20\Omega/V \sim 1\,000\Omega/V$ 或更高的限流电阻。详见电容器标准。

另外，在用手操作电容器之前必须对电容器进行充分放电，否则电容器内部残存的能量可能会对操作人员产生致命的伤害。

5. 因薄膜振动产生的嗡鸣声

电容器的嗡鸣声是由于电容器薄膜受到两电极间库仑力的作用，产生的振动而发出的声音。施加的电压和频率波形失真越严重，所产生的嗡鸣声越大。但这种嗡鸣声对电容器不会产生任何破坏作用。

6. 外壳温升($\Delta\theta_{case}$)

当电容器中通过持续电流时，热量累积会使电容器内部温度升高。当温度超出允许的热点温度时，可能会导致电容器短路甚至燃烧。因此，流经电容器的电流不允许超过产品目录所规定的最大数值，而且有必要监测电容器加载时的温升。

7. 高湿环境

如果长时间使用在高湿环境下，电容器可能会吸收潮气、电极被氧化，导致电容器损坏。如果是在 AC 条件下使用，高湿环境将会加剧电晕的影响，从而引起电容量下降、损耗增加。

8. 贮存条件

8.1 电容器不能贮存在腐蚀性的空气环境中，特别是存在氢化物、硫化物、酸、碱、盐、有机溶剂或类似物质时。

8.2 产品不能暴露在高温和高湿状态，必须保存在以下环境中：（在不拆开原包装的基础上）

温度：-40°C 到 35°C

湿度：年平均值不超过 70%RH

全年任意 30 天不超过 80%RH

贮存时间：不超过 24 个月（从产品包装或产品本体上的日期算起）

4. Charging and discharging

Because the charging and discharging current of capacitor is obtained by the product of voltage rise rate (dv/dt) and capacitance, low voltage charging and discharging may also cause deterioration of capacitor such as shorting and open due to sudden charging and discharging current. When charging and discharging, pass through a resistance of $20\Omega/V$ to $1\,000\Omega/V$ or more to limit current.

When connecting multiple film capacitors in parallel in withstand voltage test or life test, connect a resistance of $20\Omega/V$ to $1\,000\Omega/V$ or more in series to each capacitor. (For detail see the specification).

Capacitor In addition, capacitors must be discharged with resistor before handling. Because the capacitor hasn't discharge resistor inside, so there is residual but maybe deathful electric energy contained.

5. Buzzing noise

Any buzzing noise produced by capacitor is caused by the vibration of the film due to the coulomb force that is generated between the electrodes with opposite poles. If the waveform with a high distortion rate or frequency is applied across the capacitor, the buzzing noise will become louder. But the buzzing noise is of no damage to capacitor.

6. Contained temperature rise ($\Delta\theta_{case}$)

When continuing current flows through the capacitor, the temperature inside the capacitor will rise, induced by accumulated heat. If the temperature exceeds allowed hot-spot temperature, it might cause a short circuit or fire. The limits described in the catalogue are not exceeded and it's necessary to check the temperature on the capacitor surface when it works.

7. Humid ambient

If used for a long time in a humid ambient, the capacitor might absorb humidity and oxidise the electrodes causing breakage of the capacitor. If case of AC application, high humidity would increase the corona effect. This phenomenon causes a drop of capacitance and an increase of capacitor losses.

8. Storage conditions

8.1 Capacitors may not be stored in corrosive atmospheres, particularly not when chlorides, sulfides, acids, lye, salts, organic solvents or similar substances are present.

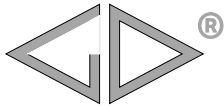
8.2 It shouldn't be located in particularly high temperature and high humidity, it must submit to the following conditions (unchanging primal package):

Temperature: -40°C to 35°C

Humidity: Average per year $\leq 70\%RH$; For 30 full days

randomly distributed throughout the year $\leq 80\%RH$

Storage time: ≤ 24 months (from the date marked on the capacitor's body or the label glued to the package)



FARATRONIC

六、绿色产品

RoHS 符合性

在此产品目录中的法拉公司的产品均符合 RoHS 指令和《电子信息产品污染控制管理办法》的要求。

七、客户订购指南

请尽量提供以下信息

1. 应用场合：如 UPS、变频器、整流器等
2. 额定电容量及允许偏差
3. 电压：包括额定电压、工作电压、纹波电压、非周期冲击电压等
4. 电流：包括最大电流、工作电流、最大峰值电流、最大冲击电流等
5. 频率：包括工作频率，脉冲频率，纹波电压的频率等
6. 工作场所：如固定场所、车辆、船舶等
7. 工作环境：如温度范围、湿度、海拔、散热方式等
8. 产品尺寸：如直径、高度或长度、宽度、高度等
9. 端子类型：如螺栓式、螺孔式、接线片、插片式等
10. 安全要求：如阻燃、防爆等
12. 预期寿命：在给定的工作条件下的预期寿命
12. 安装方式：如底部螺栓、中部卡圈、安装耳等
13. 其它

六、Green Products

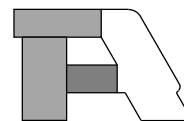
RoHS Compliance

Faratronic products in the catalogue are RoHS Compliant.

七、Guide for customer ordering

Please provide following information as possible as you can

1. Application: for example, UPS, transducer, rectifier etc.
2. Rated capacitance and tolerance
3. Voltage: including rated voltage, working voltage, ripple voltage, non-recurrent surge voltage etc.
4. Current: including maximum current, working current, maximum peak current, maximum surge current etc.
5. Frequency: including working frequency, pulse frequency, frequency of ripple voltage etc.
6. Working location: for example, fixed-location, vehicle, watercraft, etc.
7. Working environment: for example, temperature range, humidity, altitude, cooling mode etc.
8. Dimensions: for example, diameter, height or length, width, height etc.
9. Terminal form: for example, stud, thread hole, lug, tab, etc.
10. Safety: for example, flame resistance, anti-explosion etc.
11. Expected lifetime: under given working conditions.
12. Fixed style: for example, bottom-stud, middle-clip, mounting ears etc.
13. Others



八、产品编码说明 Part number system

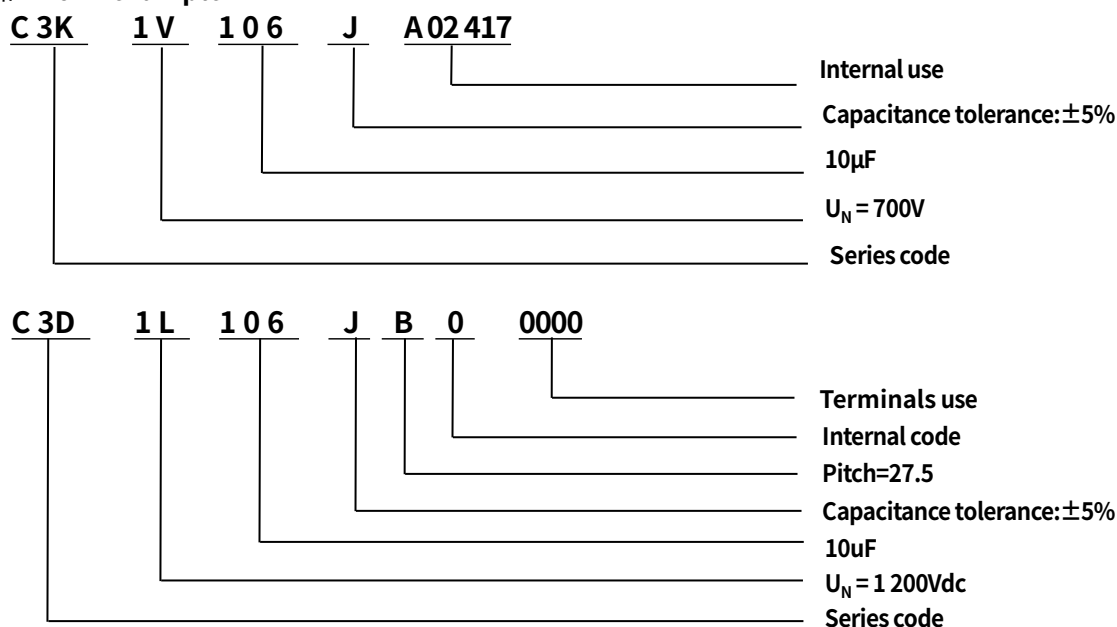
■ 15 位产品代码如下:

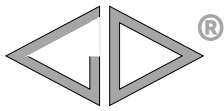
The 15 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	3	K												

第 1~3 位	型号代码	Digit 1 to 3	Series code
第 4~5 位	额定电压 (参见 table 1)	Digit 4 to 5	Rated voltage(refer to table 1)
第 6~8 位	标称容量 举例: $107=10 \times 10^7 \text{pF}=100\mu\text{F}$	Digit 6 to 8	Rated capacitance value for example: $107=10 \times 10^7 \text{pF}=100\mu\text{F}$
第 9 位	容量偏差 G=±2%, H=±3%, J=±5% K=±10%, N=0 ~ 10%	Digit 9	Capacitance tolerance G=±2%, H=±3%, J=±5% K=±10%, N=0 ~ 10%
适用于 C3D,C95,C3H,C16,C6A,C38 系列		For C3D, C95, C3H, C16, C6A, C38 series	
第 10 位	引线脚距 (参见 table 2) (适用于 C3D, C95, C3H, C16, C6A 系列)	Digit 10	Pitch(refer to table 2) (for C3D, C95, C3H, C16, C6A series)
第 10 位	外形尺寸代码 (适用于 C38 系列, 参照 C38 系列的说明)	Digit 10	Dimension code (for C38 related to C38 series)
第 11 位	内部特征码	Digit 11	Internal use
第 12~15 位	引出端代码 (参照各个型号的说明)	Digit 12 to 15	Terminals code (related to each series)
适用于 C3B,C3E,C3L,C3G,C3T,C3K,C3S,C6M,C67, C6S,C6D 等系列, 参照各个系列的说明		For C3B,C3E,C3L,C3G, C3T,C3K,C3S,C6M,C67,C6S,C6D related to each series	
第 10~15 位	内部特征码	Digit 10 to 15	Internal use

■ 例如 for example





■ Table 1 额定电压代码 Rated voltage code

	A	B	C	D	E	F	G	H	J	K	L	M	N
1			16	20	25			50	63	80	132	1100	2 400
2	100	125	160	200	250	315	400	500	630	800	120	1300	2 200
3	1 000	1 250	1600	2 000	2 500	3150	4 000	5 000	6 300	8 000	1 200	1 400	2 600
4	1050		2 2000		3 350	470	54				180	1 500	2 300
5	10 000				35 000	4 005	5 100				150	1 900	2 100
6	11 000				3 100	4 135					1 7000	1 800	2 700
7	14 000					490						1 700	2 170
8	12 000					4 300						1 850	
9						4 400						1 350	

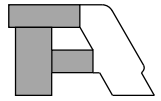
	P	Q	R	S	T	U	V	W	X	Y			
1	240	300	330	440	540	600	700	850	900				
2	275	305	350	450	520	690	760	875	9 000				
3	280	310	320	480	550	660	750	870	950				
4	220	3 000	345	430	560	620	7 000	810	910				
5	230	3 050	3 500	460	5 500	650	7 500	830					
6	2 800	3 200	375	4 500	525	6 000	780	860					
7	2 250	3 300	3 600	410	580	6 500	70 000						
8		3 700	380	465	530	680							
9		3 400	360	4 200	510								

说明：字母加数字表示交流，数字加字母表示直流，例如 A2 表示 100Vac，2A 表示 100Vdc

Exaplention: Letter and then number indicate AC, but number and then Letter indicate DC,
for example ,2A indicate 100Vdc, A2 indicate 100Vac.

■ Table 2 脚距代码 Pitch code

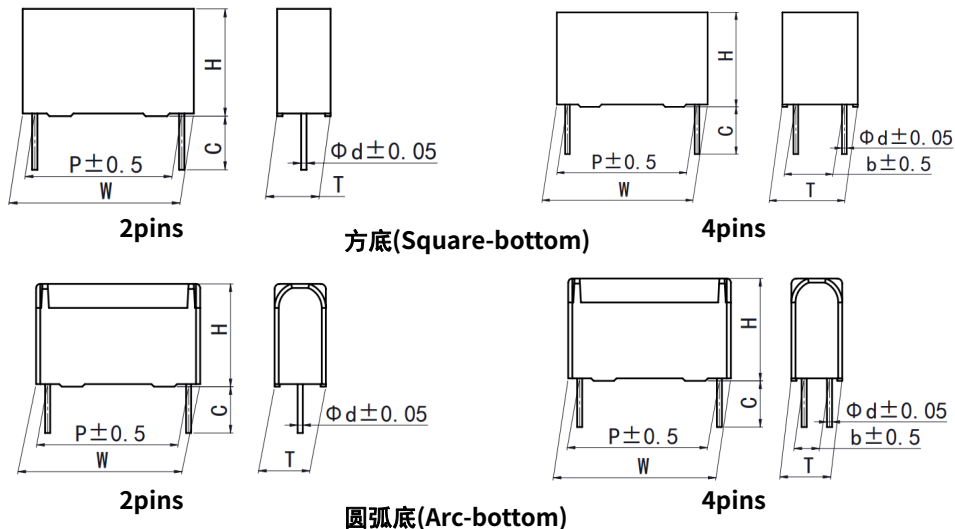
Code	0	2	3	4	5	6	8	9	A	B
Pitch	axial	5.0	7.5	10	12.5	15	20	22.5	25.0	27.5
Code	C	D	F	H	M	R				
Pitch	30	32.5	37.5	42.5	52.5	62.5				



PCB 用 DC-Link 电容器

DC-Link Capacitor for PCB

外形图 Outline Drawing



特点

- 金属化聚丙烯膜结构
- 良好的电气性能
- 塑料外壳封装 (UL94 V-0), 树脂填充
- 高性能直流滤波应用场合
(如: 变频器、工业和高端电源、太阳能逆变器等)

Features

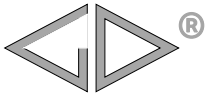
- Metallized polypropylene film structure
- Excellent electric property
- Plastic case (UL94 V-0), filled with resin
- High performance DC filtering applications (i.e. transducers, industrial and high-end power supplies and solar inverters)

安全认证 Safety Approvals

●		TUV Rheinland (德国)	EN 61071: 2007, EN 61881-1: 2011, 450Vdc~3 200Vdc, 0.56μF~220μF, -40°C/85°C 证书号 (Certificate No.): R 50266108
●		UL (美国)	UL 810 (construction only), Max. 5 000Vdc, 90°C 证书号 (File No.): E256238, CCN: CZDS2

技术要求 Specifications

引用标准 Reference Standard	GB/T 17702 (IEC 61071)
气候类别 Climatic Category	40/85/56
工作温度范围 (外壳) Operating Temperature Range (case)	-40°C~105°C (+85°C to +105°C: decreasing factor 1.35% per °C for U _{N,85°C})
额定电压 (U _{N,85°C}) Rated Voltage (U _{N,85°C})	500Vdc, 600Vdc, 800Vdc, 900Vdc, 1 000Vdc, 1 100Vdc, 1 200Vdc
电容量偏差 Capacitance Tolerance	±5% (J), ±10% (K)
耐电压 Voltage Proof	1.5U _N (10s)
绝缘电阻 Insulation Resistance (IR×C _N)	≥10 000s (20°C, 100Vdc, 1min)
自感 (L _s) Self Inductance (L _s)	<1nH per mm of lead spacing
最大峰值电流 Ĩ (A) Maximum peak current Ĩ (A)	Ĩ = C · dV/dt
预期寿命 Expected lifetime	100 000h @ U _N , θ _{hs} = 70°C



C3D

■ 产品编码说明 Part number system

■ 15 位产品代码如下:

The 15 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	3	D												

第 1~3 位	型号代码	Digit 1 to 3	Series code
	C3D		C3D
第 4~5 位	直流额定电压	Digit 4 to 5	D.C. rated voltage
	2H=500V 1U=600V 2K=800V 1X=900V 3A=1 000V 1M=1 100V 3L=1 200V		2H=500V 1U=600V 2K=800V 1X=900V 3A=1 000V 1M=1 100V 3L=1 200V
第 6~8 位	标称容量	Digit 6 to 8	Rated capacitance value
	举例: 105=10×10 ⁵ pF=1.0μF		for example: 105=10×10 ⁵ pF=1.0μF
第 9 位	容量偏差	Digit 9	Capacitance tolerance
	J=±5%, K=±10%		J=±5%, K=±10%
第 10 位	引线脚距 P	Digit 10	Pitch
	B=27.5mm C=30.0mm F=37.5mm M=52.5mm		B=27.5mm C=30.0mm F=37.5mm M=52.5mm
第 11 位	内部特征码	Digit 11	Internal use
第 12~15 位	引线加工和包装代码	Digit 12 to 15	Lead form and packaging code

■ Table 1 引线加工和包装代码 lead form and packaging code

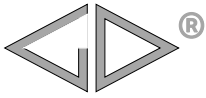
第 12 位 Digit 12		第 13 位和第 14 位 Digit 13 and Digit 14		第 15 位 Digit 15	
代码 Code	说明 explanation	代码 Code	说明 explanation	代码 Code	说明 explanation
0	2 引线 Two pins	C0	标准引线长度 5.5mm Standard lead length 5.5mm	0	引线长度偏差±1.0mm Length tolerance ±1.0mm
1	4 引线 Four pins b=10.0mm	38	引线长度 3.8mm Lead length 3.8mm	2	引线长度偏差±0.5mm Length tolerance ±0.5mm
2	4 引线 Four pins b=12.7mm				
3	4 引线 Four pins b=20.0mm				
4	4 引线 Four pins b=15.0mm				
A	4 引线 Four pins b=20.3mm				
B	4 引线 Four pins b=10.2mm				
C	4 引线 Four pins b=5.1mm				
D	4 引线 Four pins b=15.2mm				



■ 技术参数 Technical data(mm)

U _{N,85°C} : 500Vdc												
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±0.5	b ±0.5	d ±0.05	dV/dt (V/μs)	tanδ×(10 ⁻⁴)		ESR @10kHz (mΩ)	I _{max} (A)	Part number
								1kHz	10kHz			
5.0	32.0	20.0	11.0	27.5	-	0.8	65	10	100	21.9	5.0	C3D2H505+B00***
10.0	32.0	24.5	15.0	27.5	-	0.8	65	10	100	11.5	6.5	C3D2H106+B00***
22.0	32.0	37.0	22.0	27.5	-	0.8	65	10	100	5.9	10.0	C3D2H226+B00***
30.0	42.0	40.0	20.0	37.5	10.2	1.0	30	15	150	8.0	12.5	C3D2H306+F0B***
35.0	42.0	36.0	24.0	37.5	10.2	1.0	30	15	150	8.0	13.5	C3D2H356+F0B***
40.0	41.5	37.5	27.5	37.5	10.2	1.0	30	15	150	5.0	14.5	C3D2H406+F0B***
50.0	41.0	43.0	28.0	37.5	12.7	1.2	30	15	150	4.0	16.0	C3D2H506+F02***
50.0	42.0	45.0	30.0	37.5	20.3	1.2	30	15	150	4.0	16.0	C3D2H506+F0A***
60.0	42.0	45.0	30.0	37.5	20.3	1.2	30	15	150	3.8	16.5	C3D2H606+F0A***
75.0	57.0	43.5	29.5	52.5	12.7	1.2	15	35	350	5.5	16.0	C3D2H756+M02***
75.0	57.0	43.5	29.5	52.5	20.3	1.2	15	35	350	5.5	16.0	C3D2H756+M0A***
80.0	57.0	43.5	29.5	52.5	20.3	1.2	15	35	350	5.0	16.5	C3D2H806+M0A***
100.0	57.0	50.0	35.0	52.5	20.3	1.2	15	35	350	4.0	18.0	C3D2H107+M0A***
110.0	57.0	50.0	35.0	52.5	20.3	1.2	15	35	350	4.0	19.0	C3D2H117+M0A***

U _{N,85°C} : 600Vdc												
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±0.5	b ±0.5	d ±0.05	dV/dt (V/μs)	tanδ×(10 ⁻⁴)		ESR @10kHz (mΩ)	I _{max} (A)	Part number
								1kHz	10kHz			
2.0	32.0	18.0	9.0	27.5	-	0.8	65	11	100	47.8	2.8	C3D1U205+B00***
3.0	32.0	20.0	11.0	27.5	-	0.8	65	11	100	31.8	4.1	C3D1U305+B00***
4.0	32.0	20.0	11.0	27.5	-	0.8	65	11	100	23.9	5.5	C3D1U405+B00***
5.0	32.0	22.0	13.0	27.5	-	0.8	65	11	100	19.1	6.9	C3D1U505+B00***
6.0	32.0	24.5	15.0	27.5	-	0.8	65	11	100	18.6	7.1	C3D1U605+B00***
7.0	32.0	24.5	15.0	27.5	-	0.8	65	11	100	15.9	8.3	C3D1U705+B00***
8.0	32.0	28.0	14.0	27.5	-	0.8	65	11	100	13.9	9.5	C3D1U805+B00***
9.0	32.0	30.0	16.0	27.5	-	0.8	65	11	100	12.4	10.7	C3D1U905+B00***
10.0	32.0	30.0	16.0	27.5	-	0.8	65	11	100	11.1	11.0	C3D1U106+B00***
12.0	32.0	33.0	18.0	27.5	-	0.8	65	11	100	10.8	12.0	C3D1U126+B00***
★12.0	32.0	33.0	18.0	27.5	-	0.8	65	11	100	10.8	12.0	C3D1U126+BY0***
15.0	32.0	37.0	22.0	27.5	-	0.8	65	11	100	9.0	12.0	C3D1U156+B00***
15.0	32.0	37.0	22.0	27.5	10.2	0.8	65	11	100	7.4	16.5	C3D1U156+B0B***
18.0	32.0	37.0	22.0	27.5	-	0.8	65	11	100	8.0	12.0	C3D1U186+B00***
18.0	32.0	37.0	22.0	27.5	12.7	0.8	65	11	100	6.2	17.0	C3D1U186+B02***
10.0	41.0	30.0	16.0	37.5	-	1.0	30	20	175	19.5	6.2	C3D1U106+F00***
12.0	41.0	30.0	16.0	37.5	-	1.0	30	20	175	16.3	7.4	C3D1U126+F00***
★15.0	41.0	33.5	18.5	37.5	-	1.0	30	20	175	13.0	9.2	C3D1U156+FY0***
20.0	42.0	40.0	20.0	37.5	10.2	1.0	30	20	175	9.8	12.3	C3D1U206+F0B***
22.0	42.0	40.0	20.0	37.5	10.2	1.0	30	20	175	8.9	13.5	C3D1U226+F0B***
25.0	42.0	40.0	20.0	37.5	10.2	1.0	30	20	175	7.8	15.4	C3D1U256+F0B***
30.0	42.0	44.0	24.0	37.5	12.7	1.0	30	20	175	6.5	18.5	C3D1U306+F02***
★35.0	42.0	45.0	30.0	37.5	12.7	1.2	30	20	175	6.0	20.1	C3D1U356+FY2***
35.0	42.0	45.0	30.0	37.5	20.3	1.2	30	20	175	6.0	20.1	C3D1U356+F0A***
40.0	42.0	45.0	30.0	37.5	12.7	1.2	30	20	175	5.2	23.0	C3D1U406+F02***
40.0	42.0	45.0	30.0	37.5	20.3	1.2	30	20	175	5.2	23.0	C3D1U406+F0A***



C3D

■ 技术参数 Technical data(mm)

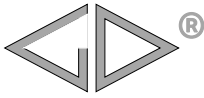
U _{N, 85°C} : 600Vdc												
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±0.5	b ±0.5	d ±0.05	dV/dt (V/μs)	tanδ×(10 ⁻⁴)		ESR @10kHz (mΩ)	I _{max} (A)	Part number
								1kHz	10kHz			
★ 45.0	42.0	50.0	35.0	37.5	12.7	1.2	30	20	175	4.6	25.8	C3D1U456+F02***
★ 45.0	42.0	50.0	35.0	37.5	20.3	1.2	30	20	175	4.6	25.8	C3D1U456+FYA***
★ 50.0	42.0	50.0	35.0	37.5	20.3	1.2	30	20	175	4.2	28.7	C3D1U506+F0A***
★ 50.0	42.0	46.0	35.0	37.5	20.3	1.2	30	20	175	4.2	28.7	C3D1U506+FAA***
55.0	42.0	50.0	35.0	37.5	20.3	1.2	30	20	175	3.8	31.6	C3D1U556+F0A***
60.0	42.0	55.0	40.0	37.5	20.3	1.2	30	20	175	3.5	34.5	C3D1U606+F0A***
★ 65.0	42.0	55.0	40.0	37.5	20.3	1.2	30	20	175	3.2	35.0	C3D1U656+FYA***
70.0	42.0	55.0	40.0	37.5	20.3	1.2	30	20	175	3.0	35.0	C3D1U706+F0A***
★ 75.0	42.0	60.0	45.0	37.5	20.3	1.2	30	20	175	2.8	35.0	C3D1U756+FYA***
★ 80.0	42.0	60.0	45.0	37.5	20.3	1.2	30	20	175	2.6	35.0	C3D1U806+F0A***
★ 85.0	42.0	60.0	45.0	37.5	20.3	1.2	30	20	175	2.5	35.0	C3D1U856+F0A***
★ 40.0	57.0	45.0	25.0	52.5	12.7	1.2	15	36	350	9.8	12.3	C3D1U406+MY2***
★ 45.0	57.0	45.0	25.0	52.5	12.7	1.2	15	36	350	8.7	13.8	C3D1U456+MY2***
★ 50.0	57.0	45.0	25.0	52.5	12.7	1.2	15	36	350	7.8	15.4	C3D1U506+MY2***
★ 55.0	57.0	43.5	29.5	52.5	12.7	1.2	15	36	350	7.1	16.9	C3D1U556+MY2***
★ 55.0	57.0	43.5	29.5	52.5	20.3	1.2	15	36	350	7.1	16.9	C3D1U556+MYA***
60.0	57.0	43.5	29.5	52.5	12.7	1.2	15	36	350	6.5	18.5	C3D1U606+M02***
60.0	57.0	43.5	29.5	52.5	20.3	1.2	15	36	350	6.5	18.5	C3D1U606+M0A***
★ 65.0	57.0	50.0	35.0	52.5	12.7	1.2	15	36	350	6.0	20.0	C3D1U656+MY2***
★ 65.0	57.0	50.0	35.0	52.5	20.3	1.2	15	36	350	6.0	20.0	C3D1U656+MYA***
★ 70.0	57.0	50.0	35.0	52.5	20.3	1.2	15	36	350	5.6	21.5	C3D1U706+MYA***
75.0	57.0	50.0	35.0	52.5	20.3	1.2	15	36	350	5.2	23.1	C3D1U756+M0A***
80.0	57.0	50.0	35.0	52.5	20.3	1.2	15	36	350	4.9	24.6	C3D1U806+M0A***
★ 85.0	57.0	55.0	45.0	52.5	20.3	1.2	15	36	350	4.8	25.1	C3D1U856+MYA***
★ 90.0	57.0	55.0	45.0	52.5	20.3	1.2	15	36	350	4.6	25.8	C3D1U906+MYA***
★ 95.0	57.0	55.0	45.0	52.5	20.3	1.2	15	36	350	4.4	27.3	C3D1U956+MYA***
100.0	57.0	55.0	45.0	52.5	20.3	1.2	15	36	350	4.2	28.7	C3D1U107+M0A***
110.0	57.0	55.0	45.0	52.5	20.3	1.2	15	36	350	3.8	31.6	C3D1U117+M0A***
120.0	57.0	65.0	45.0	52.5	20.3	1.2	15	36	350	3.5	34.5	C3D1U127+M0A***
★ 130.0	57.0	65.0	45.0	52.5	20.3	1.2	15	36	350	3.2	35.0	C3D1U137+MYA***
140.0	57.0	65.0	45.0	52.5	20.3	1.2	15	36	350	3.0	35.0	C3D1U147+M0A***

U _{N, 85°C} : 800Vdc												
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±0.5	b ±0.5	d ±0.05	dV/dt (V/μs)	tanδ×(10 ⁻⁴)		ESR @10kHz (mΩ)	I _{max} (A)	Part number
								1kHz	10kHz			
2.0	32.0	18.0	9.0	27.5	-	0.8	65	10	95	45.4	2.9	C3D2K205+B00***
3.0	32.0	20.0	11.0	27.5	-	0.8	65	10	95	30.3	4.4	C3D2K305+B00***
3.3	32.0	30.0	16.0	27.5	-	0.8	65	10	95	18.8	7.0	C3D2K335+B00***
4.0	32.0	25.0	13.0	27.5	-	0.8	65	10	95	22.7	5.8	C3D2K405+B00***
5.0	32.0	24.5	15.0	27.5	-	0.8	65	10	95	18.2	7.3	C3D2K505+B00***
★ 6.0	32.0	30.0	16.0	27.5	-	0.8	65	10	95	15.1	8.7	C3D2K605+BY0***
7.0	32.0	30.0	16.0	27.5	-	0.8	65	10	95	13.0	10.2	C3D2K705+B00***
8.0	32.0	33.0	18.0	27.5	-	0.8	65	10	95	12.5	10.5	C3D2K805+B00***
9.0	32.0	33.0	18.0	27.5	-	0.8	65	10	95	11.1	11.8	C3D2K905+B00***
10.0	32.0	37.0	22.0	27.5	-	0.8	65	10	95	11.0	12.0	C3D2K106+B00***
★ 10.0	32.0	37.0	22.0	27.5	-	1.0	65	10	95	11.0	13.0	C3D2K106+B10***



■ 技术参数 Technical data(mm)

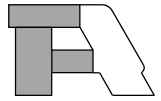
U _{N, 85°C} : 800Vdc												
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±0.5	b ±0.5	d ±0.05	dV/dt (V/μs)	tanδ×(10 ⁻⁴)		ESR @10kHz (mΩ)	I _{max} (A)	Part number
								1kHz	10kHz			
10.0	32.0	37.0	22.0	27.5	10.2	0.8	65	10	95	9.1	14.5	C3D2K106+B0B***
★ 11.0	32.0	37.0	22.0	27.5	-	0.8	65	10	95	10.0	12.0	C3D2K116+B0***
★ 11.0	32.0	37.0	22.0	27.5	10.2	0.8	65	10	95	8.3	16.0	C3D2K116+BVB***
12.0	32.0	37.0	22.0	27.5	-	0.8	65	10	95	9.3	12.0	C3D2K126+B00***
12.0	32.0	37.0	22.0	27.5	10.2	0.8	65	10	95	7.6	16.0	C3D2K126+B0B***
13.0	32.0	37.0	22.0	27.5	-	0.8	65	10	95	8.8	12.0	C3D2K136+B00***
13.0	32.0	37.0	22.0	27.5	12.7	0.8	65	10	95	8.1	16.2	C3D2K136+B02***
14.0	32.0	37.0	22.0	27.5	-	0.8	65	10	95	8.2	12.0	C3D2K146+B00***
14.0	32.0	37.0	22.0	27.5	12.7	0.8	65	10	95	7.6	16.5	C3D2K146+B02***
★ 22.0	32.0	55.0	22.0	27.5	-	1.0	65	10	95	7.5	15.0	C3D2K226+B10***
★ 8.0	41.0	30.0	16.0	37.5	-	1.0	30	18	160	22.3	5.4	C3D2K805+FY0***
9.0	41.0	30.0	16.0	37.5	-	1.0	30	18	160	19.8	6.1	C3D2K905+F00***
10.0	41.0	33.5	18.5	37.5	-	1.0	30	18	160	17.8	6.7	C3D2K106+F00***
12.0	41.0	33.5	18.5	37.5	-	1.0	30	18	160	14.9	8.1	C3D2K126+F00***
14.0	41.0	33.5	18.5	37.5	-	1.0	30	18	160	13.8	9.4	C3D2K146+F00***
15.0	42.0	40.0	20.0	37.5	10.2	1.0	30	18	160	11.9	10.1	C3D2K156+F0B***
20.0	42.0	44.0	24.0	37.5	12.7	1.0	30	18	160	8.9	13.5	C3D2K206+F02***
25.0	42.0	44.0	24.0	37.5	12.7	1.0	30	18	160	7.1	16.8	C3D2K256+F02***
30.0	42.0	45.0	30.0	37.5	12.7	1.2	30	18	160	5.9	20.2	C3D2K306+F02***
30.0	42.0	45.0	30.0	37.5	20.3	1.2	30	18	160	5.9	20.2	C3D2K306+F0A***
★ 35.0	42.0	50.0	35.0	37.5	20.3	1.2	30	18	160	5.5	22.0	C3D2K356+F0A***
40.0	42.0	50.0	35.0	37.5	20.3	1.2	30	18	160	4.8	25.1	C3D2K406+F0A***
★ 45.0	42.0	55.0	40.0	37.5	20.3	1.2	30	18	160	4.2	28.3	C3D2K456+FYA***
50.0	42.0	55.0	40.0	37.5	20.3	1.2	30	18	160	3.8	31.4	C3D2K506+F0A***
★ 55.0	42.0	60.0	45.0	37.5	20.3	1.2	30	18	160	3.5	34.5	C3D2K556+FYA***
★ 60.0	42.0	60.0	45.0	37.5	20.3	1.2	30	18	160	3.2	35.0	C3D2K606+F0A***
★ 65.0	42.0	60.0	45.0	37.5	20.3	1.2	30	18	160	2.9	35.0	C3D2K656+F0A***
★ 25.0	57.0	45.0	25.0	52.5	12.7	1.2	15	33	320	14.3	8.4	C3D2K256+MY2***
★ 30.0	57.0	45.0	25.0	52.5	12.7	1.2	15	33	320	11.9	10.1	C3D2K306+MY2***
★ 35.0	57.0	45.0	25.0	52.5	12.7	1.2	15	33	320	10.2	11.8	C3D2K356+M02***
40.0	57.0	43.5	29.5	52.5	12.7	1.2	15	33	320	8.9	13.5	C3D2K406+M02***
40.0	57.0	43.5	29.5	52.5	20.3	1.2	15	33	320	8.9	13.5	C3D2K406+M0A***
45.0	57.0	43.5	29.5	52.5	12.7	1.2	15	33	320	7.9	15.1	C3D2K456+M02***
45.0	57.0	43.5	29.5	52.5	20.3	1.2	15	33	320	7.9	15.1	C3D2K456+M0A***
50.0	57.0	50.0	35.0	52.5	12.7	1.2	15	33	320	7.1	16.8	C3D2K506+M02***
50.0	57.0	50.0	35.0	52.5	20.3	1.2	15	33	320	7.1	16.8	C3D2K506+M0A***
50.0	57.0	45.0	30.0	52.5	20.3	1.2	15	33	320	7.1	16.8	C3D2K506+M1A***
55.0	57.0	50.0	35.0	52.5	20.3	1.2	15	33	320	6.5	18.5	C3D2K556+M0A***
60.0	57.0	50.0	35.0	52.5	20.3	1.2	15	33	320	5.9	20.2	C3D2K606+M0A***
★ 65.0	57.0	55.0	45.0	52.5	20.3	1.2	15	33	320	5.5	21.9	C3D2K656+MYA***
70.0	57.0	55.0	45.0	52.5	20.3	1.2	15	33	320	5.1	23.6	C3D2K706+M0A***
★ 75.0	57.0	55.0	45.0	52.5	20.3	1.2	15	33	320	4.8	25.2	C3D2K756+MYA***
80.0	57.0	55.0	45.0	52.5	20.3	1.2	15	33	320	4.6	25.9	C3D2K806+M0A***
★ 85.0	57.0	55.0	45.0	52.5	20.3	1.2	15	33	320	4.5	26.7	C3D2K856+MYA***
90.0	57.0	55.0	45.0	52.5	20.3	1.2	15	33	320	4.2	28.3	C3D2K906+M0A***
95.0	57.0	65.0	45.0	52.5	20.3	1.2	15	33	320	4.0	29.8	C3D2K956+M0A***
100.0	57.0	65.0	45.0	52.5	20.3	1.2	15	33	320	3.8	31.4	C3D2K107+M0A***
110.0	57.0	65.0	45.0	52.5	20.3	1.2	15	33	320	3.5	34.5	C3D2K117+M0A***



C3D

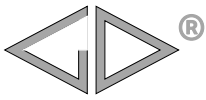
■ 技术参数 Technical data(mm)

U _{N, 85°C} : 900Vdc												
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±0.5	b ±0.5	d ±0.05	dV/dt (V/μs)	tanδ×(10 ⁻⁴)		ESR @10kHz (mΩ)	I _{max} (A)	Part number
								1kHz	10kHz			
1.0	32.0	18.0	9.0	27.5	-	0.8	70	9	90	86.0	1.5	C3D1X105+B00***
2.0	32.0	20.0	11.0	27.5	-	0.8	70	9	90	43.0	3.1	C3D1X205+B00***
3.0	32.0	22.0	13.0	27.5	-	0.8	70	9	90	28.7	4.6	C3D1X305+B00***
4.0	32.0	24.5	15.0	27.5	-	0.8	70	9	90	21.5	6.1	C3D1X405+B00***
5.0	32.0	30.0	16.0	27.5	-	0.8	70	9	90	17.2	7.7	C3D1X505+B00***
★ 6.0	32.0	33.0	18.0	27.5	-	0.8	70	9	90	18.0	6.9	C3D1X605+BY0***
7.0	32.0	33.0	18.0	27.5	-	0.8	70	9	90	13.0	10.2	C3D1X705+B00***
8.0	32.0	37.0	22.0	27.5	-	0.8	70	9	90	11.5	11.4	C3D1X805+B00***
8.0	32.0	37.0	22.0	27.5	10.2	0.8	70	9	90	10.7	12.3	C3D1X805+B0B***
9.0	32.0	37.0	22.0	27.5	-	0.8	70	9	90	10.4	12.0	C3D1X905+B00***
9.0	32.0	37.0	22.0	27.5	12.7	0.8	70	9	90	9.6	13.8	C3D1X905+B02***
10.0	32.0	37.0	22.0	27.5	-	0.8	70	9	90	12.0	12.2	C3D1X106+B00***
10.0	32.0	37.0	22.0	27.5	12.7	0.8	70	9	90	8.6	15.4	C3D1X106+B02***
4.7	41.0	26.0	15.0	37.5	-	1.0	35	17	150	35.6	3.4	C3D1X475+F00***
5.0	41.0	30.0	16.0	37.5	-	1.0	35	17	150	33.4	3.6	C3D1X505+F00***
★ 6.0	41.0	30.0	16.0	37.5	-	1.0	35	17	150	27.9	4.3	C3D1X605+FY0***
7.0	41.0	30.0	16.0	37.5	-	1.0	35	17	150	23.9	5.0	C3D1X705+F00***
8.0	41.0	33.5	18.5	37.5	-	1.0	35	17	150	20.9	5.7	C3D1X805+F00***
10.0	42.0	40.0	20.0	37.5	10.2	1.0	35	17	150	16.7	7.2	C3D1X106+F0B***
12.0	41.0	37.0	22.0	37.5	10.2	1.0	35	17	150	13.9	8.6	C3D1X126+F0B***
15.0	42.0	44.0	24.0	37.5	12.7	1.0	35	17	150	11.1	10.8	C3D1X156+F02***
★ 18.0	42.0	44.0	24.0	37.5	12.7	1.0	35	17	150	9.3	12.9	C3D1X186+FY2***
20.0	42.0	44.0	24.0	37.5	12.7	1.0	35	17	150	8.4	14.4	C3D1X206+F02***
25.0	42.0	45.0	30.0	37.5	12.7	1.2	35	17	150	6.7	17.9	C3D1X256+F02***
25.0	42.0	45.0	30.0	37.5	20.3	1.2	35	17	150	6.7	17.9	C3D1X256+F0A***
30.0	42.0	50.0	35.0	37.5	20.3	1.2	35	17	150	5.6	21.5	C3D1X306+F0A***
★ 35.0	42.0	55.0	40.0	37.5	20.3	1.2	35	17	150	5.1	23.4	C3D1X356+FYA***
40.0	42.0	55.0	40.0	37.5	20.3	1.2	35	17	150	4.5	26.8	C3D1X406+F0A***
★ 45.0	42.0	60.0	45.0	37.5	20.3	1.2	35	17	150	4.0	30.1	C3D1X456+FYA***
★ 50.0	42.0	60.0	45.0	37.5	20.3	1.2	35	17	150	3.6	33.5	C3D1X506+F0A***
★ 15.0	57.0	45.0	25.0	52.5	10.2	1.2	15	31	300	22.3	5.4	C3D1X156+MYB***
★ 20.0	57.0	45.0	25.0	52.5	12.7	1.2	15	31	300	16.7	7.2	C3D1X206+MY2***
★ 25.0	57.0	45.0	25.0	52.5	12.7	1.2	15	31	300	13.4	9.0	C3D1X256+MY2***
★ 30.0	57.0	43.5	29.5	52.5	12.7	1.2	15	31	300	11.1	10.8	C3D1X306+MY2***
30.0	57.0	43.5	29.5	52.5	20.3	1.2	15	31	300	11.1	10.8	C3D1X306+M0A***
★ 35.0	57.0	43.5	29.5	52.5	12.7	1.2	15	31	300	9.6	12.6	C3D1X356+MY2***
★ 35.0	57.0	43.5	29.5	52.5	20.3	1.2	15	31	300	9.6	12.6	C3D1X356+MYA***
40.0	57.0	50.0	35.0	52.5	20.3	1.2	15	31	300	8.4	14.4	C3D1X406+M0A***
★ 45.0	57.0	50.0	35.0	52.5	20.3	1.2	15	31	300	7.4	16.1	C3D1X456+MYA***
50.0	57.0	50.0	35.0	52.5	20.3	1.2	15	31	300	6.7	17.9	C3D1X506+M0A***
★ 55.0	57.0	55.0	45.0	52.5	20.3	1.2	15	31	300	6.1	19.7	C3D1X556+MYA***
★ 60.0	57.0	55.0	45.0	52.5	20.3	1.2	15	31	300	5.6	21.5	C3D1X606+MYA***
★ 65.0	57.0	55.0	45.0	52.5	20.3	1.2	15	31	300	5.1	23.3	C3D1X656+MYA***
★ 70.0	57.0	65.0	45.0	52.5	20.3	1.2	15	31	300	4.8	25.1	C3D1X706+MYA***
★ 75.0	57.0	65.0	45.0	52.5	20.3	1.2	15	31	300	4.7	25.7	C3D1X756+MYA***
★ 80.0	57.0	65.0	45.0	52.5	20.3	1.2	15	31	300	4.5	26.8	C3D1X806+MYA***
85.0	57.0	65.0	45.0	52.5	20.3	1.2	15	31	300	4.2	28.5	C3D1X856+M0A***



■ 技术参数 Technical data(mm)

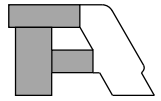
U _{N,85°C} : 1 000Vdc												
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±0.5	b ±0.5	d ±0.05	dV/dt (V/μs)	tanδ×(10 ⁻⁴)		ESR @10kHz (mΩ)	I _{max} (A)	Part number
								1kHz	10kHz			
1.0	32.0	18.0	9.0	27.5	-	0.8	75	8	80	76.4	1.7	C3D3A105+B00***
2.0	32.0	22.0	13.0	27.5	-	0.8	75	8	80	38.2	3.5	C3D3A205+B00***
3.0	32.0	24.5	15.0	27.5	-	0.8	75	8	80	25.5	5.2	C3D3A305+B00***
4.0	32.0	30.0	16.0	27.5	-	0.8	75	8	80	19.1	6.9	C3D3A405+B00***
5.0	32.0	33.0	18.0	27.5	-	0.8	75	8	80	15.3	8.6	C3D3A505+B00***
6.0	32.0	33.0	18.0	27.5	-	0.8	75	8	80	14.9	8.9	C3D3A605+B00***
★ 7.0	32.0	37.0	22.0	27.5	-	0.8	75	8	80	14.5	9.4	C3D3A705+B00***
★ 7.0	32.0	37.0	22.0	27.5	12.7	0.8	75	8	80	11.4	11.6	C3D3A705+B02***
8.0	32.0	37.0	22.0	27.5	-	0.8	75	8	80	13.0	10.8	C3D3A805+B00***
8.0	32.0	37.0	22.0	27.5	12.7	0.8	75	8	80	10.0	13.3	C3D3A805+B02***
★ 5.0	41.0	30.0	16.0	37.5	-	1.0	37	15	140	31.2	3.8	C3D3A505+FY0***
6.0	41.0	30.0	16.0	37.5	-	1.0	37	15	140	26.0	4.6	C3D3A605+F00***
7.0	41.0	33.5	18.5	37.5	-	1.0	37	15	140	22.3	5.4	C3D3A705+F00***
8.0	41.0	33.5	18.5	37.5	-	1.0	37	15	140	19.5	6.2	C3D3A805+F00***
10.0	42.0	40.0	20.0	37.5	-	1.0	37	15	140	15.6	6.7	C3D3A106+F00***
10.0	42.0	40.0	20.0	37.5	10.2	1.0	37	15	140	15.6	7.7	C3D3A106+F0B***
12.0	41.0	37.0	22.0	37.5	12.7	1.0	37	15	140	13.0	9.2	C3D3A126+F02***
12.0	41.0	37.0	22.0	37.5	-	1.0	37	15	140	15.0	8.0	C3D3A126+F00***
15.0	42.0	44.0	24.0	37.5	12.7	1.0	37	15	140	10.4	11.5	C3D3A156+F02***
18.0	42.0	45.0	30.0	37.5	12.7	1.2	37	15	140	8.7	13.8	C3D3A186+F02***
18.0	42.0	45.0	30.0	37.5	20.3	1.2	37	15	140	8.7	13.8	C3D3A186+F0A***
20.0	42.0	45.0	30.0	37.5	12.7	1.2	37	15	140	7.8	15.4	C3D3A206+F02***
20.0	42.0	45.0	30.0	37.5	20.3	1.2	37	15	140	7.8	15.4	C3D3A206+F0A***
25.0	42.0	50.0	35.0	37.5	20.3	1.2	37	15	140	6.2	19.2	C3D3A256+F0A***
★ 30.0	42.0	55.0	40.0	37.5	20.3	1.2	37	15	140	5.2	23.1	C3D3A306+FYA***
35.0	42.0	55.0	40.0	37.5	20.3	1.2	37	15	140	4.8	25.1	C3D3A356+F0A***
★ 40.0	42.0	60.0	45.0	37.5	20.3	1.2	37	15	140	4.2	28.7	C3D3A406+F0A***
★ 15.0	57.0	45.0	25.0	52.5	12.7	1.2	17	28	280	20.8	5.8	C3D3A156+MY2***
★ 20.0	57.0	45.0	25.0	52.5	12.7	1.2	17	28	280	15.6	7.7	C3D3A206+M02***
★ 25.0	57.0	45.0	25.0	52.5	12.7	1.2	17	28	280	12.5	9.6	C3D3A256+MY2***
★ 30.0	57.0	43.5	29.5	52.5	12.7	1.2	17	28	280	10.4	11.5	C3D3A306KM02***
30.0	57.0	43.5	29.5	52.5	20.3	1.2	17	28	280	10.4	11.5	C3D3A306KM0A***
30.0	57.0	45.0	30.0	52.5	12.7	1.2	17	28	280	10.4	11.5	C3D3A306JM02***
30.0	57.0	45.0	30.0	52.5	20.3	1.2	17	28	280	10.4	11.5	C3D3A306JM0A***
★ 35.0	57.0	50.0	35.0	52.5	20.3	1.2	17	28	280	8.9	13.5	C3D3A356+MYA***
40.0	57.0	50.0	35.0	52.5	20.3	1.2	17	28	280	7.8	15.4	C3D3A406+M0A***
45.0	57.0	55.0	45.0	52.5	20.3	1.2	17	28	280	6.9	17.3	C3D3A456+M0A***
50.0	57.0	55.0	45.0	52.5	20.3	1.2	17	28	280	6.2	19.2	C3D3A506+M0A***
55.0	57.0	55.0	45.0	52.5	20.3	1.2	17	28	280	5.7	21.1	C3D3A556+M0A***
★ 60.0	57.0	65.0	45.0	52.5	20.3	1.2	17	28	280	5.2	23.1	C3D3A606+MYA***
65.0	57.0	65.0	45.0	52.5	20.3	1.2	17	28	280	4.8	25.0	C3D3A656+M0A***
70.0	57.0	65.0	45.0	52.5	20.3	1.2	17	28	280	4.5	26.9	C3D3A706+M0A***



C3D

■ 技术参数 Technical data(mm)

U _{N,85°C} : 1 000Vdc												
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±0.5	b ±0.5	d ±0.05	dV/dt (V/μs)	tanδ×(10 ⁻⁴)		ESR @10kHz (mΩ)	I _{max} (A)	Part number
								1kHz	10kHz			
0.68	32.0	20.0	11.0	27.5	-	0.8	80	8	70	80.0	1.7	C3D1M684+B00***
1.0	32.0	20.0	11.0	27.5	-	0.8	80	8	70	59.4	2.2	C3D1M105+B00***
1.5	32.0	22.0	13.0	27.5	-	0.8	80	8	70	55.7	2.4	C3D1M155+B00***
2.0	32.0	25.0	13.0	27.5	-	0.8	80	8	70	27.9	4.7	C3D1M205JB00***
★ 2.0	32.0	25.0	13.0	27.5	-	0.8	80	8	70	27.9	4.7	C3D1M205KB00***
3.0	32.0	30.0	16.0	27.5	-	0.8	80	8	70	20.4	6.5	C3D1M305+B00***
4.0	32.0	33.0	18.0	27.5	-	0.8	80	8	70	15.3	8.6	C3D1M405+B00***
5.0	32.0	37.0	22.0	27.5	-	0.8	80	8	70	14.0	9.8	C3D1M505+B00***
5.0	32.0	37.0	22.0	27.5	10.2	0.8	80	8	70	12.3	10.8	C3D1M505+B0B***
6.0	32.0	37.0	22.0	27.5	-	0.8	80	8	70	12.3	10.8	C3D1M605+B00***
6.0	32.0	37.0	22.0	27.5	10.2	0.8	80	8	70	10.2	12.9	C3D1M605+B0B***
★ 3.0	41.0	30.0	16.0	37.5	-	1.0	40	15	130	48.3	2.5	C3D1M305+FY0***
★ 4.0	41.0	30.0	16.0	37.5	-	1.0	40	15	130	36.2	3.3	C3D1M405+FY0***
★ 4.7	41.0	33.5	18.5	37.5	-	1.0	40	15	130	30.8	3.9	C3D1M475+FY0***
5.0	41.0	33.5	18.5	37.5	-	1.0	40	15	130	29.0	4.1	C3D1M505+F00***
★ 6.0	41.0	33.5	18.5	37.5	-	1.0	40	15	130	24.2	5.0	C3D1M605+FY0***
7.0	42.0	40.0	20.0	37.5	10.2	1.0	40	15	130	20.7	5.8	C3D1M705+F0B***
8.0	41.0	37.0	22.0	37.5	10.2	1.0	40	15	130	18.1	6.6	C3D1M805+F0B***
9.0	41.0	37.0	22.0	37.5	12.7	1.0	40	15	130	16.1	7.5	C3D1M905+F02***
10.0	42.0	44.0	24.0	37.5	12.7	1.0	40	15	130	14.5	8.3	C3D1M106+F02***
12.0	42.0	44.0	24.0	37.5	12.7	1.0	40	15	130	12.1	9.9	C3D1M126+F02***
★ 12.0	42.0	44.0	24.0	37.5	-	1.0	40	15	130	14.0	8.6	C3D1M126+FY0***
14.0	42.0	45.0	30.0	37.5	-	1.2	40	15	130	10.4	11.6	C3D1M146+F00***
15.0	42.0	45.0	30.0	37.5	12.7	1.2	40	15	130	9.7	12.4	C3D1M156+F02***
15.0	42.0	45.0	30.0	37.5	20.3	1.2	40	15	130	9.7	12.4	C3D1M156+F0A***
★ 18.0	42.0	50.0	35.0	37.5	20.3	1.2	40	15	130	8.1	14.9	C3D1M186+FYA***
20.0	42.0	50.0	35.0	37.5	20.3	1.2	40	15	130	7.2	16.6	C3D1M206+F0A***
25.0	42.0	55.0	40.0	37.5	20.3	1.2	40	15	130	5.8	20.7	C3D1M256+F0A***
★ 30.0	42.0	60.0	45.0	37.5	20.3	1.2	40	15	130	4.8	24.8	C3D1M306+F0A***
★ 15.0	57.0	45.0	25.0	52.5	12.7	1.2	20	27	260	19.3	6.2	C3D1M156+M02***
20.0	57.0	43.5	29.5	52.5	12.7	1.2	20	27	260	14.5	8.3	C3D1M206+M02***
20.0	57.0	43.5	29.5	52.5	20.3	1.2	20	27	260	14.5	8.3	C3D1M206+M0A***
25.0	57.0	50.0	35.0	52.5	20.3	1.2	20	27	260	11.6	10.4	C3D1M256+M0A***
30.0	57.0	50.0	35.0	52.5	20.3	1.2	20	27	260	9.7	12.4	C3D1M306+M0A***
★ 35.0	57.0	55.0	45.0	52.5	20.3	1.2	20	27	260	8.4	14.3	C3D1M356+MYA***
40.0	57.0	55.0	45.0	52.5	20.3	1.2	20	27	260	7.8	15.5	C3D1M406+M0A***
★ 45.0	57.0	55.0	45.0	52.5	20.3	1.2	20	27	260	6.9	17.4	C3D1M456+MYA***
50.0	57.0	65.0	45.0	52.5	20.3	1.2	20	27	260	6.2	19.3	C3D1M506+M0A***
★ 55.0	57.0	65.0	45.0	52.5	20.3	1.2	20	27	260	5.6	21.3	C3D1M556+MYA***



■ 技术参数 Technical data(mm)

U _{N, 85°C} : 1 200Vdc												
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±0.5	b ±0.5	d ±0.05	dV/dt (V/μs)	tanδ×(10 ⁻⁴)		ESR @10kHz (mΩ)	I _{max} (A)	Part number
								1kHz	10kHz			
1.0	32.0	20.0	11.0	27.5	-	0.8	90	7	55	39.5	3.5	C3D3L105+B00***
2.0	32.0	24.5	15.0	27.5	-	0.8	90	7	55	26.3	5.0	C3D3L205+B00***
3.0	32.0	30.0	16.0	27.5	-	0.8	90	7	55	17.5	7.5	C3D3L305+B00***
4.0	32.0	33.0	18.0	27.5	-	0.8	90	7	55	13.9	9.5	C3D3L405+B00***
5.0	32.0	37.0	22.0	27.5	-	0.8	90	7	55	12.7	10.4	C3D3L505+B00***
5.0	32.0	37.0	22.0	27.5	10.2	0.8	90	7	55	11.1	11.8	C3D3L505+B0B***
3.0	41.0	30.0	16.0	37.5	-	1.0	45	13	100	37.2	3.2	C3D3L305+F00***
4.0	41.0	30.0	16.0	37.5	-	1.0	45	13	100	27.9	4.3	C3D3L405+F00***
5.0	41.0	33.5	18.5	37.5	-	1.0	45	13	100	22.3	5.4	C3D3L505+F00***
6.0	42.0	40.0	20.0	37.5	-	1.0	45	13	100	18.6	6.5	C3D3L605+F00***
★ 7.0	41.0	37.0	22.0	37.5	10.2	1.0	45	13	100	15.9	7.5	C3D3L705+FYB***
★ 8.0	42.0	44.0	24.0	37.5	12.7	1.0	45	13	100	13.9	8.6	C3D3L805+FY2***
★ 9.0	42.0	44.0	24.0	37.5	12.7	1.0	45	13	100	12.4	9.7	C3D3L905+FY2***
10.0	42.0	44.0	24.0	37.5	12.7	1.0	45	13	100	11.1	10.8	C3D3L106+F02***
★ 12.0	42.0	45.0	30.0	37.5	12.7	1.2	45	13	100	9.3	12.9	C3D3L126+FY2***
★ 12.0	42.0	45.0	30.0	37.5	20.3	1.2	45	13	100	9.3	12.9	C3D3L126+FYA***
★ 15.0	42.0	50.0	35.0	37.5	20.3	1.2	45	13	100	7.4	16.1	C3D3L156+FYA***
★ 18.0	42.0	50.0	35.0	37.5	20.3	1.2	45	13	100	6.6	18.1	C3D3L186+FYA***
20.0	42.0	55.0	40.0	37.5	20.3	1.2	45	13	100	6.0	20.1	C3D3L206+F0A***
★ 25.0	42.0	60.0	45.0	37.5	20.3	1.2	45	13	100	4.8	25.1	C3D3L256+FYA***
★ 12.0	57.0	45.0	25.0	52.5	12.7	1.2	23	24	200	19.9	6.0	C3D3L126+MY2***
★ 15.0	57.0	45.0	25.0	52.5	12.7	1.2	23	24	200	15.9	7.5	C3D3L156+MY2***
★ 20.0	57.0	43.5	29.5	52.5	12.7	1.2	23	24	200	11.9	10.0	C3D3L206KMY2***
20.0	57.0	43.5	29.5	52.5	20.3	1.2	23	24	200	11.9	10.0	C3D3L206KM0A***
20.0	57.0	45.0	30.0	52.5	12.7	1.2	23	24	200	11.9	10.0	C3D3L206JM02***
20.0	57.0	45.0	30.0	52.5	20.3	1.2	23	24	200	11.9	10.0	C3D3L206JM0A***
25.0	57.0	50.0	35.0	52.5	20.3	1.2	23	24	200	9.6	12.6	C3D3L256+M0A***
30.0	57.0	55.0	45.0	52.5	20.3	1.2	23	24	200	8.0	15.1	C3D3L306+M0A***
35.0	57.0	55.0	45.0	52.5	20.3	1.2	23	24	200	6.8	17.6	C3D3L356+M0A***
40.0	57.0	65.0	45.0	52.5	20.3	1.2	23	24	200	6.0	20.1	C3D3L406+M0A***
45.0	57.0	65.0	45.0	52.5	20.3	1.2	23	24	200	5.3	22.6	C3D3L456+M0A***

备注 Note: 1. “+”表示容量偏差。 “+”=capacitance tolerance code, J=±5%, K=±10%.

2. “***”表示引线加工和包装代码。 “***”=lead form and packaging code.

3. 当“b=10.0mm”时,第12位代码为“1”;当“b=20.0mm”时,第12位代码为“3”;当“b=15.0mm”时,第12位代码为“4”。

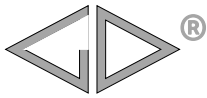
When the b=10.0mm, the digit 12 is “1”; When the b=20.0mm, the digit 12 is “3”; When the b=15.0mm, the digit 12 is “4”.

4. “I_{max}”是在 f=10kHz, θ_{amb}=70°C, Δθ_{case}=15.0°C的最大电流有效值。

“I_{max}”=Maximum r.m.s current at 10kHz, θ_{amb}=70°C, Δθ_{case}=15.0°C.

5. “★”表示外壳为圆弧底。“★”=Arc-bottom of the outer shell.

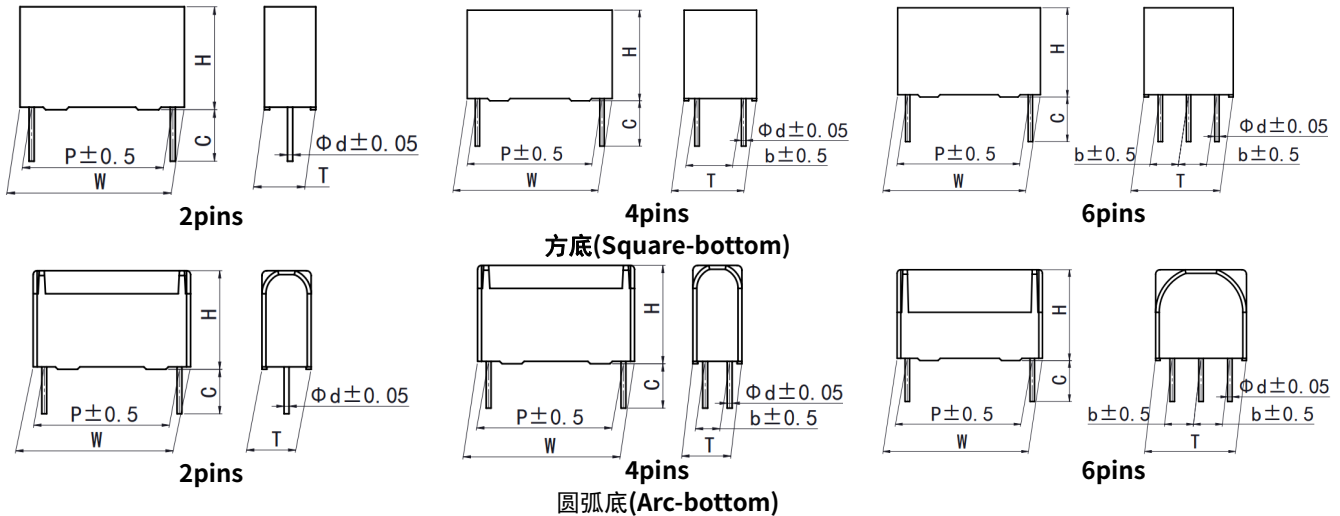
6. “ESR”为典型值。“ESR”are typical values.



C3D (R)

低高度设计 PCB 用 DC-Link 电容器 Low building height DC-Link Capacitor for PCB

外形图 Outline Drawing



特点

- 超薄型, 低高度, 安全膜设计
- 高耐纹波电流, 低 ESR、L_s
- 塑料外壳封装 (UL94 V-0), 树脂填充
- 良好的自愈特性
- 高性能直流滤波应用场合
(如: 变频器、工业和高端电源、太阳能逆变器等)

Features

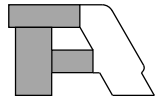
- Slim line, low building height, segmented metallized-film design
- High ripple current capability, low ESR, low L_s
- Plastic case (UL94 V-0), filled with resin
- Self-healing property
- High performance DC filtering applications (i.e. transducers, industrial and high-end power supplies and solar inverters)

安全认证 Safety Approvals

●		TUV Rheinland (德国)	EN 61071: 2007, EN 61881-1: 2011, 450Vdc~3 200Vdc, 0.56μF~220μF, -40°C/85°C 证书号 (Certificate No.): R 50266108
●		UL (美国)	UL 810 (construction only), Max. 5 000Vdc, 90°C 证书号 (File No.): E256238, CCN: CZDS2

技术要求 Specifications

引用标准 Reference Standard	GB/T 17702 (IEC 61071)			
气候类别 Climatic Category	40/85/56			
工作温度范围 Operating temperature Range	-40°C~105°C θ _{hs} = +85°C ~ +105°C: decreasing factor 1.5% per °C for U _{N,85°C}			
额定电压 (U _{N,85°C}) Rated Voltage (U _{N,85°C})	500V	700V	1 000V	1 200V
工作电压 Operating Voltage U _{OPDC, 105°C}	350V	490V	700V	840V
电容量偏差 Capacitance Tolerance	±5% (J), ±10% (K)			
电容量范围 Capacitance Range	1.5μF~100μF			
耐电压 Voltage Proof	1.5U _N (10s)			
绝缘电阻 Insulation Resistance (IR×C _N)	≥10 000s (20°C, 100Vdc, 1min)			
自感 (L _s) Self Inductance (L _s)	<1nH per mm of lead spacing			
最大峰值电流 î (A) Maximum peak current î (A)	î = C · dV/dt			
预期寿命 Expected lifetime	100 000h @ U _N , θ _{hs} = 70°C			



■ 产品编码说明 Part number system

■ 15 位产品代码如下:

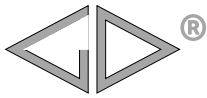
The 15 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	3	D												

第 1~3 位	型号代码	Digit 1 to 3	Series code
	C3D		C3D
第 4~5 位	直流额定电压	Digit 4 to 5	D.C. rated voltage
	2H=500V 1V=700V		2H=500V 1V=700V
	3A=1 000V 3L=1 200V		3A=1 000V 3L=1 200V
第 6~8 位	标称容量	Digit 6 to 8	Rated capacitance value
	举例: 256=25 × 10 ⁶ pF=25.0μF		for example: 256=25 × 10 ⁶ pF=25.0μF
第 9 位	容量偏差	Digit 9	Capacitance tolerance
	J=±5%, K=±10%		J=±5%, K=±10%
第 10 位	引线脚距 P	Digit 10	Pitch
	B=27.5mm F=37.5mm M=52.5mm		B=27.5mm F=37.5mm M=52.5mm
第 11 位	内部特征码	Digit 11	Internal use
第 12~15 位	引线加工和包装代码	Digit 12 to 15	Lead form and packaging code

■ Table 1 引线加工和包装代码 lead form and packaging code

第 12 位 Digit 12		第 13 位和第 14 位 Digit 13 and Digit 14		第 15 位 Digit 15	
代码 Code	说明 explanation	代码 Code	说明 explanation	代码 Code	说明 explanation
0	2 引线 Two pins	C0	标准引线长度 5.5mm Standard lead length 5.5mm	0	引线长度偏差 ±1.0mm Length tolerance ±1.0mm
1	4 引线 Four pins b=10.0mm				
2	4 引线 Four pins b=12.7mm				
3	4 引线 Four pins b=20.0mm				
4	4 引线 Four pins b=15.0mm				
A	4 引线 Four pins b=20.3mm				
B	4 引线 Four pins b=10.2mm				
C	4 引线 Four pins b=5.1mm				
D	4 引线 Four pins b=15.2mm				
G	6 引线 Six pins b=20.3mm				



C3D (R)

■ 技术参数 Technical data(mm)

U _{N, 85°C} : 500 Vdc													
HEIGHT (mm)	C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±0.5	b ±0.5	d ±0.05	dV/dt (V/μs)	tanδ×(10 ⁻⁴)		ESR @10kHz (mΩ)	I _{max} (A)	Part number
									1kHz	10kHz			
12	★ 5	32	12	24	27.5	-	0.8	20	10	85	20.0	3.8	C3D2H505+BA0C00
15	★ 7	32	15	27	27.5	-	0.8	20	10	85	14.5	4.8	C3D2H705+BB0C00
	10	42	15	27	37.5	10.2	1.0	15	20	150	16.2	5.1	C3D2H106+FBBC00
	★ 15	42	15	33	37.5	10.2	1.0	15	20	150	11.0	6.7	C3D2H156+FBBC00
	★ 20	57	15	33	52.5	20.3	1.2	10	33	300	15.4	6.4	C3D2H206+MBAC00
	★ 30	57	15	45	52.5	20.3	1.2	10	33	300	10.5	8.8	C3D2H306+MBAC00
	★ 50 ^⑥	57	15	62	52.5	20.3	1.2	10	33	300	6.6	12.8	C3D2H506+MBGC00
18	★ 10	42	18	24	37.5	10.2	1.0	15	20	150	16.2	5.1	C3D2H106+FCBC00
	★ 15	42	18	27	37.5	10.2	1.0	15	20	150	11.0	6.4	C3D2H156+FCBC00
	★ 20	42	18	39	37.5	10.2	1.0	15	20	150	8.4	8.4	C3D2H206+FCBC00
	★ 30	57	18	35	52.5	20.3	1.2	11	33	300	20.8	5.8	C3D2H306+MCAC00
	50	57	18	50	52.5	20.3	1.2	11	33	300	12.8	8.5	C3D2H506+MCAC00
24	★ 20	42	24	30	37.5	10.2	1.0	15	20	150	8.4	8.2	C3D2H206+FFBC00
	★ 30	42	24	39	37.5	10.2	1.0	15	20	150	5.8	10.8	C3D2H306+FFBC00
	★ 50	57	24	39	52.5	20.3	1.2	11	33	300	12.8	8.2	C3D2H506+MFAC00
	★ 100 ^⑥	57	24	70	52.5	20.3	1.2	11	33	300	6.7	14.2	C3D2H107+MFGC00

U _{N, 85°C} : 700 Vdc													
HEIGHT (mm)	C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±0.5	b ±0.5	d ±0.05	dV/dt (V/μs)	tanδ×(10 ⁻⁴)		ESR @10kHz (mΩ)	I _{max} (A)	Part number
									1kHz	10kHz			
12	★ 3	32	12	24	27.5	-	0.8	25	10	65	25.1	3.3	C3D1V305+BA0C00
15	★ 5	32	15	27	27.5	-	0.8	25	10	65	15.4	4.7	C3D1V505+BB0C00
	7	42	15	27	37.5	10.2	1.0	19	20	120	17.7	4.9	C3D1V705+FBBC00
	★ 10	42	15	33	37.5	10.2	1.0	19	20	120	12.6	6.2	C3D1V106+FBBC00
	★ 15	57	15	33	52.5	20.3	1.2	13	33	270	9.9	8.0	C3D1V156+MBAC00
	★ 20	57	15	45	52.5	20.3	1.2	13	33	270	7.6	10.3	C3D1V206+MBAC00
	★ 30 ^⑥	57	15	62	52.5	20.3	1.2	13	33	270	5.3	14.2	C3D1V306+MBGC00
18	★ 7	42	18	24	37.5	10.2	1.0	19	20	120	17.7	4.8	C3D1V705+FCBC00
	★ 10	42	18	27	37.5	10.2	1.0	19	20	120	12.6	6.0	C3D1V106+FCBC00
	★ 15	42	18	39	37.5	10.2	1.0	19	20	120	8.6	8.3	C3D1V156+FCBC00
	★ 20	57	18	35	52.5	20.3	1.2	13	33	270	10.1	8.3	C3D1V206+MCAC00
	30	57	18	50	52.5	20.3	1.2	13	33	270	7.0	11.6	C3D1V306+MCAC00
24	★ 15	42	24	30	37.5	10.2	1.0	19	20	120	8.6	8.1	C3D1V156+FFBC00
	★ 20	42	24	39	37.5	10.2	1.0	19	20	120	6.6	10.1	C3D1V206+FFBC00
	★ 30	57	24	39	52.5	20.3	1.2	13	33	270	7.0	11.0	C3D1V306+MFAC00
	★ 50 ^⑥	57	24	70	52.5	20.3	1.2	13	33	270	4.5	17.3	C3D1V506+MFGC00

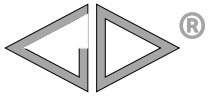


■ 技术参数 Technical data(mm)

U _{N,85°C} : 1 000 Vdc													
HEIGHT (mm)	C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±0.5	b ±0.5	d ±0.05	dV/dt (V/μs)	tanδ×(10 ⁻⁴)		ESR @10kHz (mΩ)	I _{max} (A)	Part number
									1kHz	10kHz			
12	★ 2	32	12	24	27.5	-	0.8	33	10	65	27.2	3.2	C3D3A205+BA0C00
15	5	42	15	27	37.5	10.2	1.0	25	10	65	18.1	4.8	C3D3A505+FBBC00
	★ 7	42	15	33	37.5	10.2	1.0	25	20	120	13.1	6.1	C3D3A705+FBBC00
	★ 10	57	15	33	52.5	20.3	1.2	17	20	120	17.5	6.0	C3D3A106+MBAC00
	★ 15	57	15	45	52.5	20.3	1.2	17	33	270	11.8	8.3	C3D3A156+MBAC00
	★ 20 ^⑥	57	15	62	52.5	20.3	1.2	17	33	270	9.0	10.8	C3D3A206+MBGC00
18	★ 3	42	18	24	37.5	10.2	1.0	25	20	120	29.6	3.7	C3D3A305+FCBC00
	★ 5	42	18	27	37.5	10.2	1.0	25	20	120	18.1	5.0	C3D3A505+FCBC00
	★ 7	42	18	39	37.5	10.2	1.0	25	20	120	13.1	6.8	C3D3A705+FCBC00
	★ 10	42	18	39	37.5	10.2	1.0	25	20	120	9.3	8.0	C3D3A106+FCBC00
	15	57	18	50	52.5	20.3	1.2	17	33	270	9.9	9.7	C3D3A156+MCAC00
	20	57	18	50	52.5	20.3	1.2	17	33	270	7.6	11.1	C3D3A206+MCAC00
24	★ 7	42	24	30	37.5	10.2	1.0	25	20	120	13.1	6.5	C3D3A705+FFBC00
	★ 10	42	24	39	37.5	10.2	1.0	25	20	120	9.3	8.4	C3D3A106+FFBC00
	★ 15	57	24	39	52.5	20.3	1.2	17	33	270	11.8	8.4	C3D3A156+MFAC00
	★ 20	57	24	39	52.5	20.3	1.2	17	33	270	7.6	10.5	C3D3A206+MFAC00
	★ 30 ^⑥	57	24	70	52.5	20.3	1.2	17	33	270	5.3	15.9	C3D3A306+MFGC00

U _{N,85°C} : 1 200 Vdc													
HEIGHT (mm)	C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±0.5	b ±0.5	d ±0.05	dV/dt (V/μs)	tanδ×(10 ⁻⁴)		ESR @10kHz (mΩ)	I _{max} (A)	Part number
									1kHz	10kHz			
12	★ 1.5	32	12	24	27.5	-	0.8	40	7	55	28.9	3.1	C3D3L155+BA0C00
15	3	42	15	27	37.5	10.2	1.0	31	7	55	23.9	4.2	C3D3L305+FBBC00
	★ 4	42	15	33	37.5	10.2	1.0	31	13	100	18.1	5.2	C3D3L405+FBBC00
	★ 6	57	15	33	52.5	20.3	1.2	20	13	100	23.2	5.2	C3D3L605+MBAC00
	★ 9	57	15	45	52.5	20.3	1.2	20	24	200	15.7	7.2	C3D3L905+MBAC00
	★ 12 ^⑥	57	15	62	52.5	20.3	1.2	20	24	200	11.9	9.4	C3D3L126+MBGC00
18	★ 3	42	18	24	37.5	10.2	1.0	31	13	100	23.9	4.2	C3D3L305+FCBC00
	★ 4	42	18	27	37.5	10.2	1.0	31	13	100	18.1	5.0	C3D3L405+FCBC00
	★ 7	42	18	39	37.5	10.2	1.0	31	13	100	10.6	7.5	C3D3L705+FCBC00
	13	57	18	50	52.5	20.3	1.2	20	24	200	9.2	10.0	C3D3L136+MCAC00
24	★ 6	42	24	30	37.5	10.2	1.0	31	13	100	12.3	6.7	C3D3L605+FFBC00
	★ 15	57	24	39	52.5	20.3	1.2	20	24	200	8.1	10.2	C3D3L156+MFAC00
	★ 25 ^⑥	57	24	70	52.5	20.3	1.2	20	24	200	5.1	16.1	C3D3L256+MFGC00

- 备注 Note: 1. “+”表示容量偏差。 “+”=capacitance tolerance code, J=±5%, K=±10%.
2. 当“b=10.0mm”时,第12位代码为“1”;当“b=20.0mm”时,第12位代码为“3”。
When the b=10.0mm, the digit 12 is “1”; When the b=20.0mm, the digit 12 is “3”.
3. “I_{max}”是在 f=10kHz, θ_{amb}=70°C, Δθ_{case}=15.0°C的最大电流有效值。
“I_{max}”=Maximum r.m.s current at 10kHz, θ_{amb}=70°C, Δθ_{case}=15.0°C.
4. “⑥”表示6引线。 “⑥” means 6 pins.
5. “★”表示外壳为圆弧底。 “★” = Arc-bottom of the outer shell.
6. “ESR”为典型值。 “ESR” are typical values.

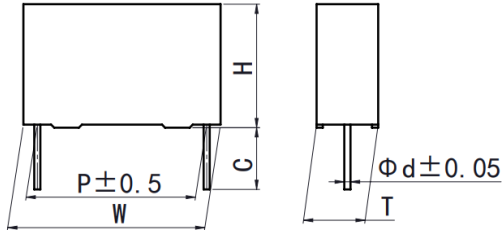


C95

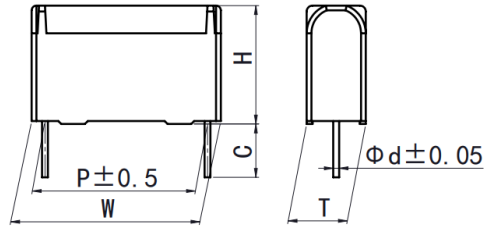
高耐高温金属化薄膜车载电容器

Metallized High Temperature film Capacitor For Automotive

■ 外形图 Outline Drawing



方底(Square-bottom) 2pins



圆弧底(Arc-bottom) 2pins

■ 特点

- 塑料外壳封装(UL94 V-0), 树脂填充
- 干式结构
- 自愈, 安全网格设计
- 较高的电流承受能力
- 能持续工作在 125°C 温度下
- 用途: DC-DC 变换器, OBC, WPT 等

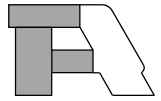
■ Features

- Plastic case (UL94 V-0), filled with resin
- Dry construction
- Self-healing, Segmented metallization design
- High r.m.s current handling capability
- Can be continuously worked at 125°C
- Applications :i.e. DC-DC convertor, OBC, WPT

■ 技术要求 Specifications

引用标准 Reference Standard	AEC-Q200D-2010
气候类别 Climatic Category	40/85/56
工作温度(外壳) Operating temperature (case)	-40°C~125°C
额定电压($U_{N,85^\circ\text{C}}$) Rated Voltage ($U_{N,85^\circ\text{C}}$)	450Vdc
电容量偏差 Capacitance Tolerance	±10% (K)
耐电压 Voltage Proof	1.5 U_N (10s)
绝缘电阻 Insulation Resistance ($IR \times C_N$)	≥1 000s(20°C, 100Vdc, 1min)
自感(L_s) Self Inductance(L_s)	<1nH per mm of lead spacing
最大峰值电流 \hat{I} (A) Maximum peak current \hat{I} (A)	$\hat{I} = C \cdot dV/dt$

* 当壳温=125°C时, 不允许有工作电流。 When $\theta_{\text{case}}=125^\circ\text{C}$, no current load allowed.



■ 产品编码说明 Part number system

■ 15 位产品代码如下:

The 15 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	9	5												

第 1~3 位	型号代码 C95	Digit 1 to 3	Series code C95
第 4~5 位	直流额定电压 2S=450V 2H=500V 1U=600V	Digit 4 to 5	D.C. rated voltage 2S=450V 2H=500V 1U=600V
第 6~8 位	标称容量 举例: 105=10×10⁵pF=1.0μF	Digit 6 to 8	Rated capacitance value for example: 105=10×10⁵pF=1.0μF
第 9 位	容量偏差 K=±10%	Digit 9	Capacitance tolerance K=±10%
第 10 位	引线脚距 P B=27.5mm F=37.5mm	Digit 10	Pitch B=27.5mm F=37.5mm
第 11 位	内部特征码	Digit 11	Internal use
第 12~15 位	引线加工和包装代码	Digit 12 to 15	Lead form and packaging code

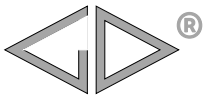
■ Table 1 引线加工和包装代码 lead form and packaging code

第 12 位 Digit 12		第 13 位和第 14 位 Digit 13 and Digit 14		第 15 位 Digit 15	
代码 Code	说明 explanation	代码 Code	说明 explanation	代码 Code	说明 explanation
0	2 引线 Two pins	C0	标准引线长度 5.5mm Standard lead length 5.5mm	0	引线长度偏差±1.0mm Length tolerance ±1.0mm
		38	引线长度 3.8mm Lead length 3.8mm	2	引线长度偏差±0.5mm Length tolerance ±0.5mm

■ 技术参数 Technical data(mm)

U _{N, 85°C} : 450 Vdc												
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±0.5	b ±0.5	d ±0.05	dV/dt (V/μs)	tanδ×(10 ⁻⁴)		ESR @10kHz (mΩ)	I _{max} (A)	Part number
								1kHz	10kHz			
4.0	32.0	22.0	13.0	27.5	-	0.8	9	60	120	46.1	2.9	C952S405+BV0***
5.0	32.0	24.5	15.0	27.5	-	0.8	9	60	120	37.1	3.5	C952S505+BV0***
8.0	32.0	29.0	19.0	27.5	-	0.8	9	60	120	23.6	5.0	C952S805+BV0***
10.0	32.0	33.0	18.0	27.5	-	0.8	9	60	120	16.9	6.1	C952S106+BV0***
12.0	32.0	34.0	20.0	27.5	-	0.8	9	60	120	14.3	6.9	C952S126+BV0***
15.0	32.0	37.0	22.0	27.5	-	0.8	9	60	120	13.1	7.7	C952S156+BV0***
18.0	32.0	40.5	24.0	27.5	-	0.8	9	60	120	11.1	8.8	C952S186+BV0***
20.0	32.0	42.0	26.0	27.5	-	1.0	9	60	120	10.1	9.6	C952S206+BV0***

- 备注 Note: 1. “+” 表示容量偏差。 “+” =capacitance tolerance code, J=±5%, K=±10%。
 2. “***” 表示引线加工和包装代码。 “***” = lead form and packaging code。
 3. “I_{max}” 是在 f=10kHz, θ_{amb}=105°C, Δθ_{case}=20.0°C 的最大电流有效值。
 “I_{max}” =Maximum r.m.s current at 10kHz, θ_{amb}=105°C, Δθ_{case}=20.0°C。

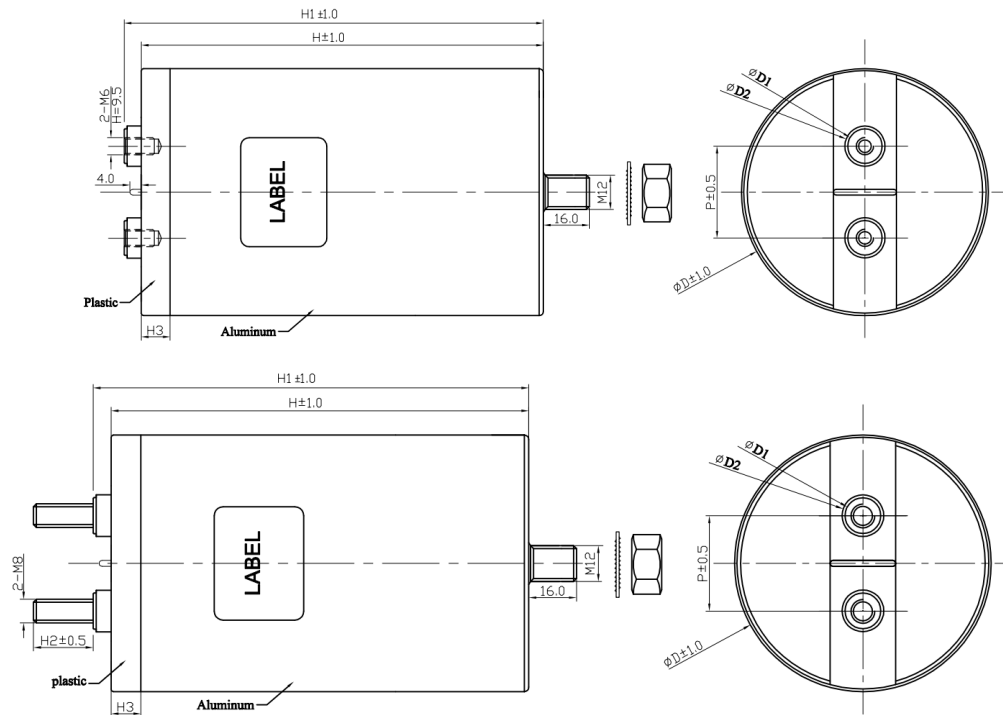


C3B

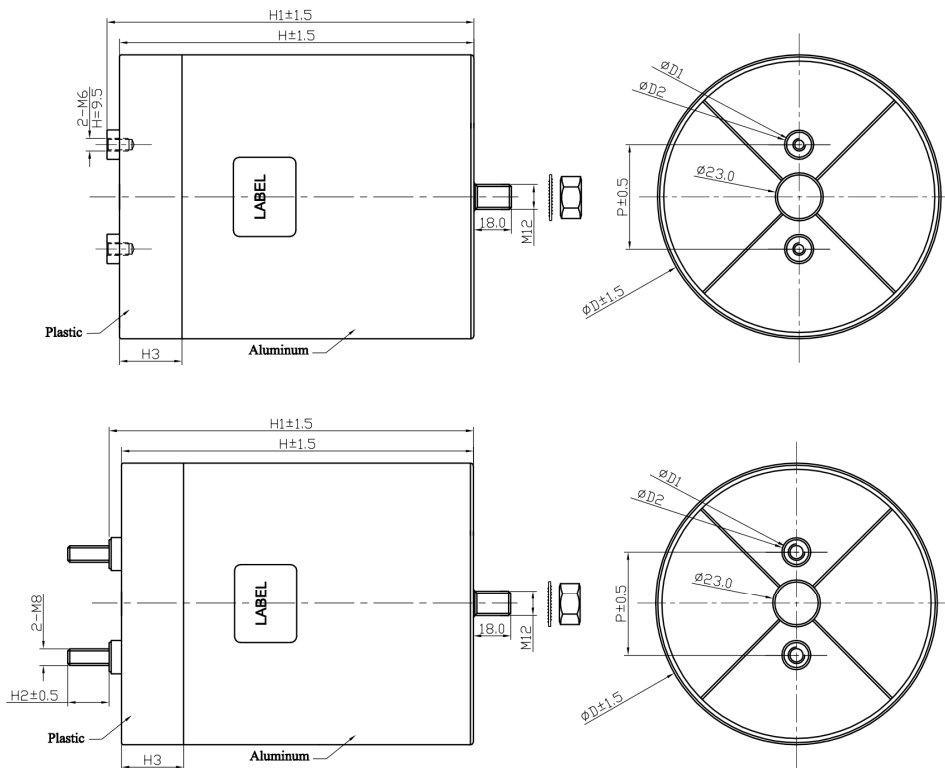
铝壳干式直流滤波电容器 DC-Link Capacitor(Dry-Type, Aluminum case)

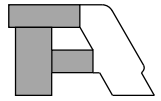
■ 外形图 Outline Drawing

D ≤ 116mm



D = 136mm





尺寸附加说明 Additional remark of dimensions

D=76mm	P=32mm; D1=12mm; D2=14mm; H3=10mm	
D=86mm	P=32mm; D1=12mm; D2=14mm; H3=10mm or 45mm	
	P=45mm;	Female terminals: D1=14mm; D2=16mm; H3=10mm or 45mm
		Male terminals: D1=16mm; D2=20mm; H3=10mm or 45mm
D=100mm	P=50mm; D1=14mm; D2=16mm;	H ≤ 100mm, H3=10mm
		H > 100mm, H3=45mm
D=116mm	P=50mm; D1=14mm; D2=16mm;	H ≤ 100mm, H3=10mm
		H > 100mm, H3=45mm
D=136mm	P=50mm; D1=14mm; D2=16mm; H3=45mm	
H3 can be changed in pursuance of customer's request. (H3=45mm when rated voltage > 1 500Vdc)		

■ 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,能承受较大的纹波电流
- 自感小
- 有自愈性
- 寿命长
- 铝壳,树脂灌封

■ Features

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

■ 应用场合

- 风能发电、太阳能发电用变频器上
- 交通工具,如:电动车和混合动力车
- 焊接设备,电梯,电机驱动

■ Applications

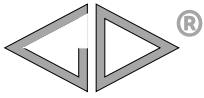
- Used in inverters of wind power and solar power
- Transportation: EV or HEV
- Welders, Elevators, Motor Driver systems

■ 安全认证 Safety Approvals

	TUV Rheinland (德国)	EN 61071:2007, EN 61881-1: 2011, 600Vdc ~ 4 000Vdc, 5μF~5 600μF, -40°C/85°C, 证书号(Certificate No.):R 50266039
	UL (美国)	UL 810 (construction only), max.5000Vdc, 90°C File No.: E256238, CCN: CZDS2

■ 技术要求 Specifications

引用标准 Reference Standard	GB/T 17702 (IEC 61071)
气候类别 Climatic Category	D ≤ 116mm: 40/85/56 D = 136mm: 40/80/56
工作温度范围 Operating Temperature Range	D ≤ 116mm: -40°C ~ 85°C ($\theta_{hs} \leq 85^\circ\text{C}$) D = 136mm: -40°C ~ 80°C ($\theta_{hs} \leq 80^\circ\text{C}$)
贮存温度范围 Storage temperature range	-40°C ~ 85°C
电压范围 Voltage Range	600Vdc ~ 4 000Vdc
电容量范围 Capacitance Range	24μF ~ 5 600μF
电容量偏差 Capacitance Tolerance	±5%(J), ±10%(K)
耐电压(两极之间) Test Voltage Between Terminals	1.5U _N (10s, 20°C ± 5°C)
耐电压(极壳之间) Test Voltage Between Terminals And Case	U _N < 1 500Vdc, 3 000Vac(10s, 50Hz, 20°C ± 5°C) U _N ≥ 1 500Vdc, ($\sqrt{2}$ U _N +1 000)Vac(10s, 50Hz, 20°C ± 5°C)
介质损耗角正切 tanδ _d	2 × 10 ⁻⁴



C3B

IR × C _N	≥5 000s (20°C, 500Vdc, 1min)	
过电压 Over Voltage	1.1 U _N (30% of on-load-dur.)	
	1.15 U _N (30min/day)	
	1.2 U _N (5min/day)	
	1.3 U _N (1min/day)	
	1.5 U _N (30ms every time, 1000times during the life of the capacitor)	
预期寿命 Expected lifetime	100 000h @ U _N , θ _{hs} =70°C	
失效率 Failure rate	50 FIT	
最高使用海拔 Max. Altitude	2 000m	
安装 Installation	方向 Position	任意方向 Any Position
	引出端形式 Terminal form	螺栓式 Male Terminals
		螺孔式 Thread hole type
	安装形式 Fixed style	下部螺栓 Bottom-bolt
中部卡圈 Ring-clip in the middle of case		
最大安装扭矩 Max. Torque of Installation	10N·m	
最大电极扭矩 Max. Torque of terminals	M6:5N·m	M8:6N·m

备注: 如果海拔使用高度超过了 2 000m, 应该考虑海拔对对流冷却和外绝缘的影响。

The effect of altitude on convection cooling and external insulation should be taken into consideration, if the altitude exceeds 2 000m.

■ 产品编码说明 Part number system

15 位产品代码如下:

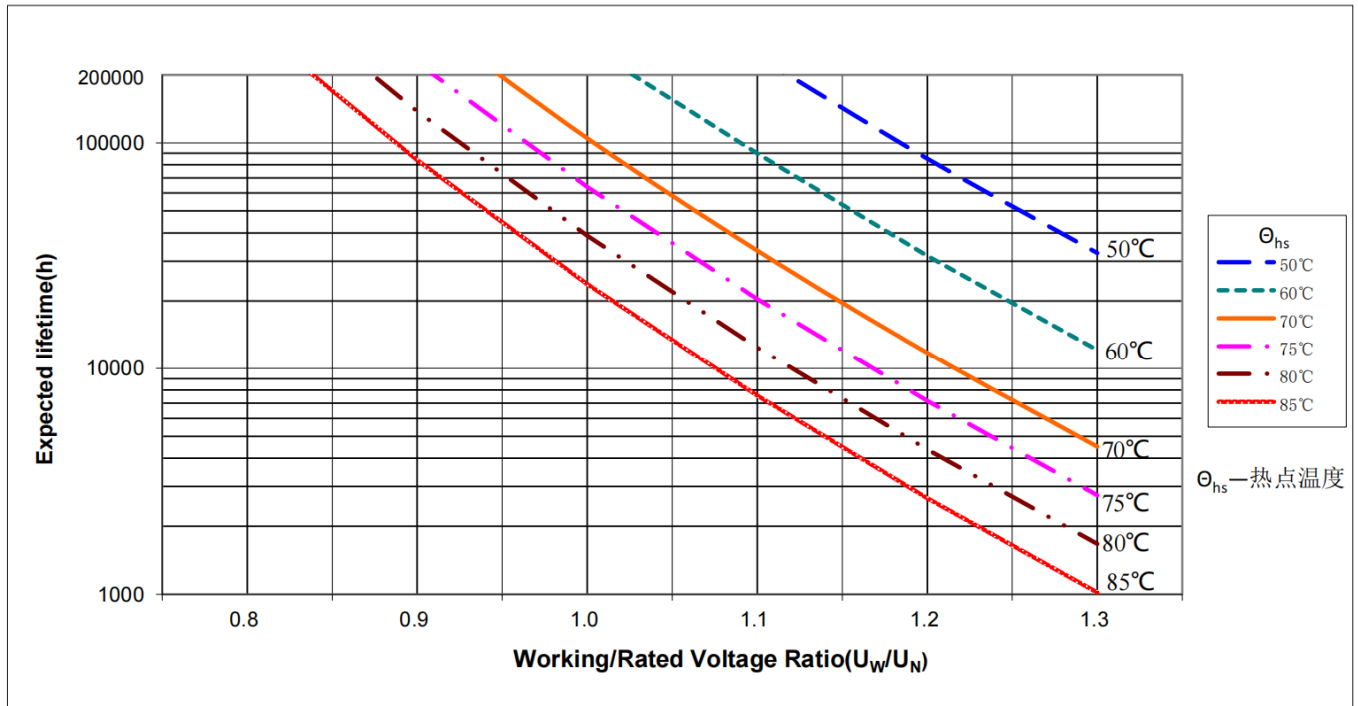
The 15 digits part number is formed as follow:

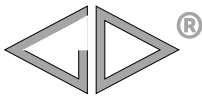
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	3	B												

第 1~3 位	型号代码	Digit 1 to 3	Series code
第 4~5 位	直流额定电压	Digit 4 to 5	DC rated voltage
	1U=600V 1V=700V 2K=800V		1U=600V 1V=700V 2K=800V
	1X=900V 3A=1 000V 1M=1 100V		1X=900V 3A=1 000V 1M=1 100V
	3L=1 200V 2M=1 300V 3M=1 400V		3L=1 200V 2M=1 300V 3M=1 400V
	4M=1 500V 3D=2 000V 2N=2 200V		4M=1 500V 3D=2 000V 2N=2 200V
	1N=2 400V 3N=2 600V 6P=2 800V		1N=2 400V 3N=2 600V 6P=2 800V
	4Q=3 000V 6Q=3 200V 7R=3 600V		4Q=3 000V 6Q=3 200V 7R=3 600V
	3G=4 000V		3G=4 000V
第 6~8 位	标称容量	Digit 6 to 8	Rated capacitance value
	举例: 127=12 × 10 ⁷ pF=120μF		for example: 127=12 × 10 ⁷ pF=120μF
第 9 位	容量偏差	Digit 9	Capacitance tolerance
	J=±5%, K=±10%		J=±5%, K=±10%
第 10~15 位	内部特征码	Digit 10 to 15	Internal use



■ 预期寿命曲线 Expected lifetime curve





C3B

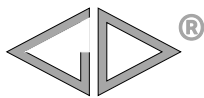
■ 技术参数 Technical data

U _N (Vdc)	C _N (μF)	ESR @1kHz (mΩ)	L _s (nH)	R _{th} (K/W)	Ī (A)	I _{max} (A)			Dimension (mm)			Weight (kg)	Part number
						40°C	50°C	60°C	ΦD	H	H1		
600	480	1.5	45	5.6	1 560	70	65	55	76	95	101	0.60	C3B1U487-*****
	650	1.9	50	4.7	1 560	70	63	53	76	120	126	0.70	C3B1U657-*****
	780	2.2	55	4.6	1 550	67	59	50	76	140	146	0.75	C3B1U787-*****
	820	1.5	40	4.3	3 060	70	70	62	76	155	161	0.90	C3B1U827-*****
	950	1.5	45	4.2	3 090	70	70	63	76	174	180	1.00	C3B1U957-*****
	650	1.2	45	5.1	2 120	70	70	64	86	95	101	0.72	C3B1U657-*****
	880	1.5	50	4.7	2 110	70	70	60	86	120	126	1.00	C3B1U887-*****
	1000	1.8	55	4.6	2 070	70	65	55	86	136	142	1.10	C3B1U108-*****
	1100	1.7	55	4.6	2 180	70	67	57	86	140	146	1.15	C3B1U118-*****
	1100	1.4	40	4.4	4 110	70	70	64	86	155	161	1.25	C3B1U118-*****
	1300	1.4	45	4.3	4 230	70	70	64	86	174	180	1.30	C3B1U138-*****
	2000	1.1	55	3.0	6 510	70	70	70	86	252	258	1.80	C3B1U208-*****
	900	1.3	45	4.7	2 900	70	70	58	100	95	100	1.20	C3B1U907-*****
	1 200	1.4	50	4.1	2 850	70	70	58	100	120	125	1.48	C3B1U128-*****
	1 400	1.5	55	3.9	2 870	70	70	58	100	136	141	1.66	C3B1U148-*****
	1 500	1.6	55	3.8	2 740	70	70	58	100	140	145	1.72	C3B1U158-*****
	1 600	1.0	40	3.5	5 920	70	70	70	100	155	160	1.99	C3B1U168-*****
	1 800	1.0	45	3.2	5 800	70	70	70	100	174	179	2.28	C3B1U188-*****
	1 200	0.7	45	5.4	3 900	80	80	80	116	95	100	1.20	C3B1U128-*****
	1 600	1.0	50	5.0	3 830	80	80	70	116	120	125	1.50	C3B1U168-*****
2 000	1.1	55	4.9	3 960	80	80	67	116	140	145	1.75	C3B1U208-*****	
2 100	0.8	40	3.6	7 840	100	100	92	116	158	163	2.00	C3B1U218-*****	
2 400	0.9	45	3.4	7 810	100	100	90	116	174	179	2.20	C3B1U248-*****	
3 000	0.8	50	2.7	11 200	100	100	100	116	230	235	2.80	C3B1U308-*****	
5 600	0.8	60	2.0	15 940	100	100	100	136	295	300	4.90	C3B1U568-*****	
700	360	1.6	45	5.6	1 560	70	63	53	76	95	101	0.60	C3B1V367-*****
	480	2.1	50	4.7	1 530	68	60	50	76	120	126	0.70	C3B1V487-*****
	580	2.4	55	4.6	1 530	64	56	48	76	140	146	0.75	C3B1V587-*****
	620	1.5	40	4.3	3 090	70	70	62	76	155	161	0.90	C3B1V627-*****
	720	1.6	45	4.2	3 120	70	70	61	76	174	180	1.00	C3B1V727-*****
	480	1.3	45	5.1	2 080	70	70	61	86	95	101	0.72	C3B1V487-*****
	650	1.7	50	4.7	2 080	70	66	56	86	120	126	1.00	C3B1V657-*****
	750	2.0	55	4.6	2 070	70	62	52	86	136	142	1.10	C3B1V757-*****
	780	1.9	55	4.6	2 060	70	63	53	86	140	146	1.15	C3B1V787-*****
	820	1.4	40	4.4	4 080	70	70	64	86	155	161	1.25	C3B1V827-*****
	950	1.5	45	4.3	4 120	70	70	62	86	174	180	1.30	C3B1V957-*****
	1 500	1.1	55	3.0	6 500	70	70	70	86	252	258	1.80	C3B1V158-*****
	650	1.4	45	4.7	2 710	70	69	56	100	95	100	1.20	C3B1V657-*****
	900	1.5	50	4.1	2 760	70	69	56	100	120	125	1.47	C3B1V907-*****
	1 000	1.7	55	3.9	2 650	70	67	55	100	136	141	1.67	C3B1V108-*****
	1 100	1.7	55	3.8	2 790	70	68	56	100	140	145	1.69	C3B1V118-*****
	1 100	1.0	40	3.5	5 260	70	70	70	100	155	160	2.01	C3B1V118-*****
	1 300	1.1	45	3.2	5 420	70	70	70	100	174	179	2.28	C3B1V138-*****
	920	0.7	45	5.4	3 990	80	80	80	116	95	100	1.20	C3B1V927-*****
	1 200	1.0	50	5.0	3 830	80	80	70	116	120	125	1.50	C3B1V128-*****
	1 500	1.1	55	4.9	3 950	80	80	68	116	140	145	1.75	C3B1V158-*****
	1 500	0.8	40	3.6	7 460	100	100	93	116	158	163	2.00	C3B1V158-*****
	1 800	1.0	45	3.4	7 800	100	100	85	116	174	179	2.20	C3B1V188-*****
	2 300	0.8	50	2.7	11 440	100	100	100	116	230	235	2.80	C3B1V238-*****
4 200	0.8	60	2.0	15 920	100	100	100	136	295	300	4.90	C3B1V428-*****	



■ 技术参数 Technical data

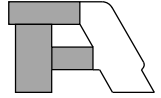
U _N (Vdc)	C _N (μF)	ESR @1kHz (mΩ)	L _s (nH)	R _{th} (K/W)	İ (A)	I _{max} (A)			Dimension (mm)			Weight (kg)	Part number
						40°C	50°C	60°C	ΦD	H	H1		
800	290	1.7	45	5.6	1530	69	61	51	76	95	101	0.60	C3B2K297-*****
	400	2.2	50	4.7	1530	66	58	49	76	120	126	0.70	C3B2K407-*****
	480	2.5	55	4.6	1560	63	55	47	76	140	146	0.75	C3B2K487-*****
	480	1.6	40	4.3	1540	70	70	60	76	155	161	0.90	C3B2K487-*****
	560	1.7	45	4.2	2910	70	70	59	76	174	180	1.00	C3B2K567-*****
	380	1.4	45	5.1	2960	70	70	59	86	95	101	0.72	C3B2K387-*****
	520	1.8	50	4.7	2010	70	64	54	86	120	126	1.00	C3B2K527-*****
	580	2.0	55	4.6	2020	70	62	52	86	136	142	1.10	C3B2K587-*****
	630	2.1	55	4.6	1950	68	60	51	86	140	146	1.15	C3B2K637-*****
	650	1.5	40	4.4	2030	70	70	62	86	155	161	1.25	C3B2K657-*****
	750	1.6	45	4.3	3940	70	70	60	86	174	180	1.30	C3B2K757-*****
	1100	1.2	55	3.0	3960	70	70	70	86	252	258	1.80	C3B2K118-*****
	500	1.4	45	4.7	2620	70	67	55	100	95	100	1.20	C3B2K507-*****
	700	1.6	50	4.1	2700	70	67	55	100	120	125	1.47	C3B2K707-*****
	800	1.8	55	3.9	2660	70	66	54	100	136	141	1.65	C3B2K807-*****
	850	1.8	55	3.8	2700	70	66	54	100	140	145	1.68	C3B2K857-*****
	900	1.1	40	3.5	5400	70	70	70	100	155	160	1.98	C3B2K907-*****
	1000	1.1	45	3.2	5230	70	70	70	100	174	179	2.28	C3B2K108-*****
	720	0.8	45	5.4	3800	80	80	76	116	95	100	1.20	C3B2K727-*****
	980	1.1	50	5.0	3810	80	79	67	116	120	125	1.50	C3B2K987-*****
1200	1.2	55	4.9	3860	80	77	65	116	140	145	1.75	C3B2K128-*****	
1200	0.85	40	3.6	7280	100	100	90	116	158	163	2.00	C3B2K128-*****	
1500	1.0	45	3.4	7920	100	100	85	116	174	179	2.20	C3B2K158-*****	
1800	0.8	50	2.7	10910	100	100	100	116	230	235	2.80	C3B2K188-*****	
3200	0.8	60	2.0	14780	100	100	100	136	295	300	4.90	C3B2K328-*****	
900	290	2.0	45	5.6	1530	63	56	47	76	95	101	0.60	C3B1X297-*****
	400	2.6	50	4.7	1560	61	54	45	76	120	126	0.70	C3B1X407-*****
	480	2.9	55	4.6	1540	58	51	43	76	140	146	0.75	C3B1X487-*****
	480	1.7	40	4.3	2910	70	69	58	76	155	161	0.90	C3B1X487-*****
	560	1.8	45	4.2	2960	70	68	58	76	174	180	1.00	C3B1X567-*****
	380	1.6	45	5.1	2010	70	65	55	86	95	101	0.72	C3B1X387-*****
	520	2.1	50	4.7	2020	68	60	50	86	120	126	1.00	C3B1X527-*****
	580	2.2	55	4.6	1950	67	59	50	86	136	142	1.10	C3B1X587-*****
	630	2.4	55	4.6	2030	64	56	48	86	140	146	1.15	C3B1X637-*****
	650	1.5	40	4.4	3940	70	70	62	86	155	161	1.25	C3B1X657-*****
	750	1.6	45	4.3	3960	70	70	60	86	174	180	1.30	C3B1X757-*****
	1100	1.3	55	3.0	5810	70	70	70	86	252	258	1.80	C3B1X118-*****
	500	1.4	45	4.7	2620	70	67	55	100	95	100	1.20	C3B1X507-*****
	700	1.6	50	4.1	2700	70	67	55	100	120	125	1.47	C3B1X707-*****
	800	1.8	55	3.9	2660	70	66	54	100	136	141	1.65	C3B1X807-*****
	850	1.8	55	3.8	2700	70	66	54	100	140	145	1.68	C3B1X857-*****
	900	1.1	40	3.5	5400	70	70	70	100	155	160	1.98	C3B1X907-*****
	1000	1.1	45	3.2	5230	70	70	70	100	174	179	2.28	C3B1X108-*****
	720	0.9	45	5.4	3800	80	80	71	116	95	100	1.20	C3B1X727-*****
	980	1.2	50	5.0	3810	80	76	64	116	120	125	1.50	C3B1X987-*****
1200	1.4	55	4.9	3860	80	71	60	116	140	145	1.75	C3B1X128-*****	
1200	0.9	40	3.6	7280	100	100	87	116	158	163	2.00	C3B1X128-*****	
1500	1.1	45	3.4	7920	100	96	81	116	174	179	2.20	C3B1X158-*****	
1800	0.8	50	2.7	10910	100	100	100	116	230	235	2.80	C3B1X188-*****	
3200	0.8	60	2.0	14780	100	100	100	136	295	300	4.90	C3B1X328-*****	



C3B

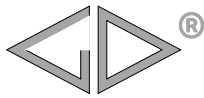
■ 技术参数 Technical data

U _N (Vdc)	C _N (μF)	ESR @1kHz (mΩ)	L _s (nH)	R _{th} (K/W)	Ī (A)	I _{max} (A)			Dimension (mm)			Weight (kg)	Part number
						40°C	50°C	60°C	ΦD	H	H1		
1 000	220	2.2	45	5.6	1 460	60	53	45	76	95	101	0.60	C3B3A227-*****
	300	2.9	50	4.7	1 460	57	51	43	76	120	126	0.70	C3B3A307-*****
	360	3.3	55	4.6	1 450	54	48	41	76	140	146	0.75	C3B3A367-*****
	360	1.9	40	4.3	2 740	70	65	55	76	155	161	0.90	C3B3A367-*****
	420	2.0	45	4.2	2 780	70	65	55	76	174	180	1.00	C3B3A427-*****
	290	1.8	45	5.1	1 920	70	62	52	86	95	101	0.72	C3B3A297-*****
	400	2.3	50	4.7	1 950	65	57	48	86	120	126	1.00	C3B3A407-*****
	470	2.2	55	4.6	1 980	67	59	50	86	136	142	1.10	C3B3A477-*****
	480	2.6	55	4.6	1 930	61	54	46	86	140	146	1.15	C3B3A487-*****
	500	1.6	40	4.4	3 800	70	70	60	86	155	161	1.25	C3B3A507-*****
	560	1.7	45	4.3	3 710	70	69	58	86	174	180	1.30	C3B3A567-*****
	900	1.3	55	3.0	5 960	70	70	70	86	252	258	1.80	C3B3A907-*****
	380	1.5	45	4.7	2 490	70	65	53	100	95	100	1.18	C3B3A387-*****
	500	1.8	50	4.1	2 410	70	64	52	100	120	125	1.47	C3B3A507-*****
	600	1.9	55	3.9	2 500	70	63	52	100	136	141	1.63	C3B3A607-*****
	650	1.9	55	3.8	2 590	70	64	52	100	140	145	1.66	C3B3A657-*****
	650	1.1	40	3.5	4 890	70	70	70	100	155	160	1.97	C3B3A657-*****
	780	1.1	45	3.2	5 110	70	70	70	100	174	179	2.24	C3B3A787-*****
	540	1.0	45	5.4	3 570	80	80	68	116	95	100	1.20	C3B3A547-*****
	740	1.4	50	5.0	3 610	80	70	59	116	120	125	1.50	C3B3A747-*****
900	1.5	55	4.9	3 620	78	69	58	116	140	145	1.75	C3B3A907-*****	
900	0.95	40	3.6	6 840	100	100	85	116	158	163	2.00	C3B3A907-*****	
1 100	1.2	45	3.4	7 280	100	92	78	116	174	179	2.20	C3B3A118-*****	
1 400	0.9	50	2.7	10 630	100	100	100	116	230	235	2.80	C3B3A148-*****	
2 500	0.9	60	2.0	14 470	100	100	100	136	295	300	4.90	C3B3A258-*****	
1 100	180	2.3	45	5.6	1 400	59	52	44	76	95	101	0.60	C3B1M187-*****
	250	3.0	50	4.7	1 430	56	50	42	76	120	126	0.70	C3B1M257-*****
	300	3.5	55	4.6	1 420	53	47	39	76	140	146	0.75	C3B1M307-*****
	310	1.9	40	4.3	2 770	70	65	55	76	155	161	0.90	C3B1M317-*****
	360	2.0	45	4.2	2 800	70	65	55	76	174	180	1.00	C3B1M367-*****
	240	1.9	45	5.1	1 870	68	60	51	86	95	101	0.72	C3B1M247-*****
	330	2.4	50	4.7	1 890	63	56	47	86	120	126	1.00	C3B1M337-*****
	420	2.3	55	4.6	2 080	65	58	49	86	136	142	1.10	C3B1M427-*****
	420	1.7	40	4.4	3 750	70	63	52	86	155	161	1.25	C3B1M427-*****
	500	1.8	45	4.3	3 730	70	67	57	86	174	180	1.30	C3B1M507-*****
	750	1.3	55	3.0	5 840	70	70	70	86	252	258	1.80	C3B1M757-*****
	350	1.5	45	4.7	2 640	70	65	53	100	95	100	1.19	C3B1M357-*****
	450	1.8	50	4.1	2 500	70	63	51	100	120	125	1.49	C3B1M457-*****
	520	2.0	55	3.9	2 500	70	62	50	100	136	141	1.67	C3B1M527-*****
	550	2.1	55	3.8	2 520	70	62	51	100	140	145	1.71	C3B1M557-*****
	580	1.1	40	3.5	5 020	70	70	70	100	155	160	2.00	C3B1M587-*****
	650	1.2	45	3.2	4 900	70	70	70	100	174	179	2.30	C3B1M657-*****
	450	1.0	45	5.4	3 500	80	80	68	116	95	100	1.20	C3B1M457-*****
	620	1.4	50	5.0	3 550	80	70	59	116	120	125	1.50	C3B1M627-*****
	750	1.6	55	4.9	3 550	75	66	56	116	140	145	1.75	C3B1M757-*****
780	0.9	40	3.6	6 960	100	100	85	116	158	163	2.00	C3B1M787-*****	
920	1.1	45	3.4	7 150	100	96	81	116	174	179	2.20	C3B1M927-*****	
1 200	0.9	50	2.7	10 710	100	100	100	116	230	235	2.80	C3B1M128-*****	
2 200	0.9	60	2.0	14 960	100	100	100	136	295	300	4.90	C3B1M228-*****	



■ 技术参数 Technical data

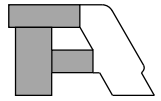
U _N (Vdc)	C _N (μF)	ESR @1kHz (mΩ)	L _s (nH)	R _{th} (K/W)	İ (A)	I _{max} (A)			Dimension (mm)			Weight (kg)	Part number
						40°C	50°C	60°C	ΦD	H	H1		
1200	140	2.7	45	5.6	1 330	55	48	41	76	95	101	0.60	C3B3L147-*****
	200	3.4	50	4.7	1 400	53	47	40	76	120	126	0.70	C3B3L207-*****
	240	3.9	55	4.6	1 380	50	44	37	76	140	146	0.75	C3B3L247-*****
	240	2.0	40	4.3	2 630	70	64	54	76	155	161	0.90	C3B3L247-*****
	280	2.1	45	4.2	2 670	70	63	53	76	174	180	1.00	C3B3L287-*****
	190	2.1	45	5.1	1 810	65	57	48	86	95	101	0.72	C3B3L197-*****
	260	2.7	50	4.7	1 810	60	53	44	86	120	126	1.00	C3B3L267-*****
	320	2.5	55	4.6	1 930	63	55	47	86	136	142	1.10	C3B3L327-*****
	330	3.0	55	4.6	1 900	57	50	43	86	140	146	1.15	C3B3L337-*****
	330	1.8	40	4.4	3 610	70	66	56	86	155	161	1.25	C3B3L337-*****
	380	1.9	45	4.3	3 610	70	65	55	86	174	180	1.30	C3B3L387-*****
	580	1.5	55	3.0	5 520	70	70	70	86	252	258	1.80	C3B3L587-*****
	250	1.7	45	4.7	2 320	70	61	50	100	95	100	1.19	C3B3L257-*****
	350	2.0	50	4.1	2 390	70	61	50	100	120	125	1.45	C3B3L357-*****
	400	2.2	55	3.9	2 360	69	59	49	100	136	141	1.63	C3B3L407-*****
	420	2.2	55	3.8	2 370	69	59	49	100	140	145	1.67	C3B3L427-*****
	450	1.2	40	3.5	4 790	70	70	70	100	155	160	1.96	C3B3L457-*****
	500	1.2	45	3.2	4 640	70	70	70	100	174	179	2.26	C3B3L507-*****
	360	1.1	45	5.4	3 420	80	76	64	116	95	100	1.20	C3B3L367-*****
	500	1.6	50	5.0	3 490	75	66	55	116	120	125	1.50	C3B3L507-*****
600	1.8	55	4.9	3 450	71	63	53	116	140	145	1.75	C3B3L607-*****	
620	1.0	40	3.6	6 780	100	98	83	116	158	163	2.00	C3B3L627-*****	
720	1.2	45	3.4	6 740	100	92	78	116	174	179	2.20	C3B3L727-*****	
950	0.9	50	2.7	10 210	100	100	100	116	230	235	2.80	C3B3L957-*****	
1 700	0.9	60	2.0	13 920	100	100	100	136	295	300	4.90	C3B3L178-*****	
1300	120	2.9	45	5.6	1 310	53	46	39	76	95	101	0.60	C3B2M127-*****
	170	3.7	50	4.7	1 360	51	45	38	76	120	126	0.70	C3B2M177-*****
	210	4.1	55	4.6	1 390	49	43	36	76	140	146	0.75	C3B2M217-*****
	210	2.1	40	4.3	2 640	70	62	53	76	155	161	0.90	C3B2M217-*****
	240	2.3	45	4.2	2 620	68	60	51	76	174	180	1.00	C3B2M247-*****
	170	2.2	45	5.1	1 850	63	56	47	86	95	101	0.72	C3B2M177-*****
	230	2.8	50	4.7	1 840	58	52	44	86	120	126	1.00	C3B2M237-*****
	270	2.8	55	4.6	1 860	59	52	44	86	136	142	1.10	C3B2M277-*****
	270	3.3	55	4.6	1 780	54	48	41	86	140	146	1.15	C3B2M277-*****
	280	1.8	40	4.4	3 510	70	66	56	86	155	161	1.25	C3B2M287-*****
	320	1.9	45	4.3	3 490	70	65	55	86	174	180	1.30	C3B2M327-*****
	520	1.5	55	3.0	5 670	70	70	67	86	252	258	1.80	C3B2M527-*****
	210	1.8	45	4.7	2 270	69	60	49	100	95	100	1.19	C3B2M217-*****
	280	2.1	50	4.1	2 230	67	58	48	100	120	125	1.47	C3B2M287-*****
	330	2.3	55	3.9	2 270	66	57	47	100	136	141	1.64	C3B2M337-*****
	360	2.3	55	3.8	2 370	67	58	47	100	140	145	1.67	C3B2M367-*****
	380	1.2	40	3.5	4 720	70	70	69	100	155	160	1.96	C3B2M387-*****
	420	1.3	45	3.2	4 540	70	70	70	100	174	179	2.26	C3B2M427-*****
	320	1.2	45	5.4	3 490	80	73	62	116	95	100	1.20	C3B2M327-*****
	430	1.6	50	5.0	3 440	75	66	55	116	120	125	1.50	C3B2M437-*****
520	1.8	55	4.9	3 430	71	63	53	116	140	145	1.75	C3B2M527-*****	
540	1.0	40	3.6	6 770	100	98	83	116	158	163	2.00	C3B2M547-*****	
630	1.2	45	3.4	6 760	100	92	78	116	174	179	2.20	C3B2M637-*****	
820	0.9	50	2.7	10 100	100	100	100	116	230	235	2.80	C3B2M827-*****	
1 500	1.0	60	2.0	14 080	100	100	100	136	295	300	4.90	C3B2M158-*****	



C3B

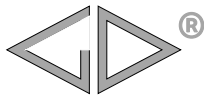
■ 技术参数 Technical data

U _N (Vdc)	C _N (μF)	ESR @1kHz (mΩ)	L _s (nH)	R _{th} (K/W)	Ĥ (A)	I _{max} (A)			Dimension (mm)			Weight (kg)	Part number
						40°C	50°C	60°C	ΦD	H	H1		
1 400	100	3.1	45	5.6	1 260	51	45	38	76	95	101	0.60	C3B3M107-*****
	140	4.0	50	4.7	1 290	49	43	36	76	120	126	0.70	C3B3M147-*****
	170	4.6	55	4.6	1 290	46	41	34	76	140	146	0.75	C3B3M177-*****
	170	2.3	40	4.3	2 460	67	59	50	76	155	161	0.90	C3B3M177-*****
	200	2.4	45	4.2	2 520	67	59	50	76	174	180	1.00	C3B3M207-*****
	140	2.4	45	5.1	1 760	61	53	45	86	95	101	0.72	C3B3M147-*****
	190	3.1	50	4.7	1 750	56	49	41	86	120	126	1.00	C3B3M197-*****
	230	2.9	55	4.6	1 800	58	51	43	86	136	142	1.10	C3B3M237-*****
	240	1.9	40	4.4	3 470	70	65	55	86	155	161	1.25	C3B3M247-*****
	270	2.1	45	4.3	3 400	70	62	53	86	174	180	1.30	C3B3M277-*****
	420	1.5	55	3.0	5 210	70	70	70	86	252	258	1.80	C3B3M427-*****
	180	1.8	45	4.7	2 240	68	59	48	100	95	100	1.19	C3B3M187-*****
	250	2.2	50	4.1	2 300	67	58	47	100	120	125	1.45	C3B3M257-*****
	290	2.4	55	3.9	2 300	65	57	46	100	136	141	1.63	C3B3M297-*****
	320	1.2	40	3.5	4 580	70	70	68	100	155	160	1.96	C3B3M327-*****
	360	1.3	45	3.2	4 490	70	70	69	100	174	179	2.26	C3B3M367-*****
	260	1.3	45	5.4	3 220	80	70	59	116	95	100	1.20	C3B3M267-*****
	360	1.8	50	5.0	3 280	70	62	52	116	120	125	1.50	C3B3M367-*****
	450	2.0	55	4.9	3 390	67	59	50	116	140	145	1.75	C3B3M457-*****
	460	1.1	40	3.6	6 540	100	94	79	116	158	163	2.00	C3B3M467-*****
540	1.3	45	3.4	6 690	89	79	66	116	174	179	2.20	C3B3M547-*****	
700	0.9	50	2.7	9 950	100	94	79	116	230	235	2.80	C3B3M707-*****	
1 300	1.05	60	2.0	14 080	100	100	97	136	295	300	4.90	C3B3M138-*****	
1 500	90	3.3	45	5.6	1 220	49	44	37	76	95	101	0.60	C3B4M906-*****
	120	4.4	50	4.7	1 200	47	41	35	76	120	126	0.70	C3B4M127-*****
	150	4.9	55	4.6	1 230	45	39	33	76	140	146	0.75	C3B4M157-*****
	150	2.4	40	4.3	2 340	66	58	49	76	155	161	0.90	C3B4M157-*****
	170	2.5	45	4.2	2 310	65	58	49	76	174	180	1.00	C3B4M177-*****
	120	2.6	45	5.1	1 630	58	51	43	86	95	101	0.72	C3B4M127-*****
	170	3.3	50	4.7	1 690	54	48	40	86	120	126	1.00	C3B4M177-*****
	200	3.0	55	4.6	1 720	57	50	43	86	136	142	1.10	C3B4M207-*****
	210	2.0	40	4.4	3 280	70	63	53	86	155	161	1.25	C3B4M217-*****
	240	2.1	45	4.3	3 260	70	62	53	86	174	180	1.30	C3B4M247-*****
	380	1.5	55	3.0	5 080	70	70	70	86	252	258	1.80	C3B4M387-*****
	160	1.9	45	4.7	2 150	67	58	47	100	95	100	1.18	C3B4M167-*****
	210	2.3	50	4.1	2 080	65	56	46	100	120	125	1.46	C3B4M217-*****
	250	2.5	55	3.9	2 140	64	55	45	100	136	141	1.63	C3B4M257-*****
	280	1.3	40	3.5	4 320	70	70	67	100	155	160	1.96	C3B4M287-*****
	320	1.3	45	3.2	4 300	70	70	68	100	174	179	2.24	C3B4M327-*****
	230	1.4	45	5.4	3 120	77	68	57	116	95	100	1.20	C3B4M237-*****
	320	1.9	50	5.0	3 180	68	60	51	116	120	125	1.50	C3B4M327-*****
	390	2.1	55	4.9	3 200	66	58	49	116	140	145	1.75	C3B4M397-*****
	420	1.1	40	3.6	6 550	100	94	79	116	158	163	2.00	C3B4M427-*****
470	1.3	45	3.4	6 280	89	79	66	116	174	179	2.20	C3B4M477-*****	
600	1.0	50	2.7	9 200	100	89	75	116	230	235	2.80	C3B4M607-*****	
1 100	1.1	60	2.0	12 850	100	100	95	136	295	300	4.90	C3B4M118-*****	



■ 技术参数 Technical data

U _N (Vdc)	C _N (μF)	ESR @1kHz (mΩ)	L _s (nH)	R _{th} (K/W)	Î (A)	I _{max} (A)			Dimension (mm)			Weight (kg)	Part number
						40°C	50°C	60°C	ΦD	H	H1		
2 000	110	3.5	65	4.5	1 830	48	42	35	86	140	146	1.05	C3B3D117-*****
	180	1.8	60	3.2	3 660	78	69	58	86	225	231	1.65	C3B3D187-*****
	180	2.1	60	3.5	3 660	70	61	52	116	120	125	1.60	C3B3D187-*****
	220	2.3	65	3.3	3 660	69	60	51	116	140	145	1.85	C3B3D227-*****
	260	1.1	55	2.9	7 360	100	93	79	116	174	179	2.30	C3B3D267-*****
	360	1.3	60	2.4	7 330	100	93	79	116	225	230	2.85	C3B3D367-*****
	250	1.8	60	2.9	5 090	78	67	55	136	120	125	2.15	C3B3D257-*****
	310	2.0	65	2.7	5 150	77	66	54	136	140	145	2.45	C3B3D317-*****
	360	1.0	55	2.4	10 200	100	99	81	136	175	180	3.15	C3B3D367-*****
	500	1.2	60	2.1	10 100	100	98	80	136	225	230	3.90	C3B3D507-*****
610	1.3	60	1.9	10 100	100	98	80	136	265	270	4.50	C3B3D617-*****	
2 200	90	3.7	65	4.5	1 790	46	41	34	86	140	146	1.05	C3B2N906-*****
	150	1.9	60	3.2	3 670	77	68	57	86	225	231	1.65	C3B2N157-*****
	140	2.2	60	3.6	3 420	67	59	50	116	120	125	1.60	C3B2N147-*****
	170	2.5	65	3.3	3 390	66	58	49	116	140	145	1.85	C3B2N177-*****
	210	1.1	55	2.9	7 150	100	91	77	116	174	179	2.30	C3B2N217-*****
	290	1.4	60	2.4	7 100	100	91	77	116	225	230	2.90	C3B2N297-*****
	200	1.9	60	2.9	4 890	76	66	54	136	120	125	2.15	C3B2N207-*****
	250	2.1	65	2.7	4 990	75	65	53	136	140	145	2.45	C3B2N257-*****
	290	1.0	55	2.4	9 870	100	97	79	136	175	180	3.15	C3B2N297-*****
	400	1.2	60	2.1	9 790	100	96	79	136	225	230	3.90	C3B2N407-*****
500	1.4	60	1.9	9 990	100	97	79	136	265	270	4.50	C3B2N507-*****	
2 400	75	3.9	65	4.5	1 770	45	40	33	86	140	146	1.05	C3B1N756-*****
	120	2.0	60	3.2	3 470	74	65	55	86	225	231	1.65	C3B1N127-*****
	120	2.3	60	3.6	3 470	66	58	49	116	120	125	1.60	C3B1N127-*****
	140	2.6	65	3.3	3 310	64	56	47	116	140	145	1.85	C3B1N147-*****
	170	1.2	55	2.9	6 840	100	89	75	116	174	179	2.30	C3B1N177-*****
	240	1.4	60	2.5	6 940	100	89	75	116	225	230	2.85	C3B1N247-*****
	160	2.0	60	3.0	4 630	73	63	52	136	120	125	2.20	C3B1N167-*****
	200	2.2	65	2.8	4 720	72	63	51	136	140	145	2.50	C3B1N207-*****
	240	1.1	55	2.5	9 660	100	95	78	136	175	180	3.15	C3B1N247-*****
	330	1.3	60	2.1	9 550	100	94	77	136	225	230	3.90	C3B1N337-*****
410	1.4	60	1.9	9 690	100	95	77	136	265	270	4.50	C3B1N417-*****	
2 600	63	4.1	65	4.5	1 730	43	38	32	86	140	146	1.05	C3B3N636-*****
	100	2.1	60	3.2	3 370	72	63	53	86	225	231	1.65	C3B3N107-*****
	100	2.4	60	3.6	3 370	64	57	48	116	120	125	1.60	C3B3N107-*****
	120	2.7	65	3.3	3 310	63	55	47	116	140	145	1.85	C3B3N127-*****
	140	1.2	55	2.9	6 570	98	87	73	116	174	179	2.30	C3B3N147-*****
	200	1.5	60	2.5	6 750	99	87	73	116	225	230	2.85	C3B3N207-*****
	140	2.0	60	3.0	4 730	73	63	51	136	120	125	2.15	C3B3N147-*****
	170	2.3	65	2.8	4 690	71	62	50	136	140	145	2.45	C3B3N177-*****
	200	1.1	55	2.5	9 390	100	94	76	136	175	180	3.15	C3B3N207-*****
	280	1.3	60	2.1	9 590	100	93	76	136	225	230	3.90	C3B3N287-*****
340	1.5	60	1.9	9 380	100	92	76	136	265	270	4.50	C3B3N347-*****	
2 800	54	4.3	65	4.5	1 710	42	37	32	86	140	146	1.05	C3B6P546-*****
	88	2.2	60	3.2	3 430	71	62	53	86	225	231	1.65	C3B6P886-*****
	86	2.5	60	3.6	3 350	63	56	47	116	120	125	1.60	C3B6P866-*****
	100	2.9	65	3.4	3 180	61	53	45	116	140	145	1.85	C3B6P107-*****
	120	1.3	55	2.9	6 500	97	85	72	116	174	179	2.30	C3B6P127-*****
	170	1.5	60	2.5	6 620	96	85	72	116	225	230	2.85	C3B6P177-*****
	120	2.1	60	3.0	4 680	71	62	51	136	120	125	2.15	C3B6P127-*****
	140	2.4	65	2.8	4 450	69	59	49	136	140	145	2.50	C3B6P147-*****
	170	1.1	55	2.5	9 210	100	92	75	136	175	180	3.15	C3B6P177-*****
	240	1.3	60	2.1	9 350	100	92	75	136	225	230	3.90	C3B6P247-*****
290	1.5	60	1.9	9 230	100	91	74	136	265	270	4.50	C3B6P297-*****	



C3B

■ 技术参数 Technical data

U _N (Vdc)	C _N (μF)	ESR @1kHz (mΩ)	L _s (nH)	R _{th} (K/W)	İ (A)	I _{max} (A)			Dimension (mm)			Weight (kg)	Part number
						40°C	50°C	60°C	ΦD	H	H1		
3 000	46	4.6	65	4.6	1 570	41	36	30	86	140	146	1.05	C3B4Q466-*****
	75	2.3	60	3.2	3 150	69	61	51	86	225	231	1.65	C3B4Q756-*****
	74	2.6	60	3.6	3 110	62	54	46	116	120	125	1.60	C3B4Q746-*****
	90	2.9	65	3.3	3 090	60	53	45	116	140	145	1.80	C3B4Q906-*****
	100	1.3	55	3.0	5 840	94	83	70	116	174	179	2.35	C3B4Q107-*****
	140	1.6	60	2.5	5 880	93	82	69	116	225	230	2.90	C3B4Q147-*****
	100	2.2	60	3.0	4 200	69	60	49	136	120	125	2.15	C3B4Q107-*****
	120	2.5	65	2.8	4 120	67	58	47	136	140	145	2.50	C3B4Q127-*****
	140	1.2	55	2.5	8 180	100	89	73	136	175	180	3.15	C3B4Q147-*****
	200	1.4	60	2.2	8 400	100	89	73	136	225	230	3.90	C3B4Q207-*****
250	1.6	60	1.9	8 580	100	89	73	136	265	270	4.50	C3B4Q257-*****	
3 200	40	4.9	65	4.6	1 470	40	35	30	86	140	146	1.05	C3B6Q406-*****
	65	2.4	60	3.2	2 930	67	59	50	86	225	231	1.65	C3B6Q656-*****
	64	2.7	60	3.6	2 880	60	53	45	116	120	125	1.60	C3B6Q646-*****
	78	3.1	65	3.4	2 870	59	52	44	116	140	145	1.80	C3B6Q786-*****
	92	1.3	55	3.0	5 760	94	83	70	116	174	179	2.30	C3B6Q926-*****
	120	1.7	60	2.5	5 410	91	80	68	116	225	230	2.90	C3B6Q127-*****
	90	2.2	60	3.0	4 050	69	59	49	136	120	125	2.15	C3B6Q906-*****
	110	2.5	65	2.8	4 050	67	58	47	136	140	145	2.45	C3B6Q117-*****
	120	1.2	55	2.6	7 520	100	87	71	136	175	180	3.20	C3B6Q127-*****
	180	1.4	60	2.2	8 110	100	89	72	136	225	230	3.85	C3B6Q187-*****
220	1.6	60	1.9	8 100	100	88	72	136	265	270	4.45	C3B6Q227-*****	
3 600	28	4.0	65	4.6	1 650	43	38	32	86	140	146	1.10	C3B7R286-*****
	45	2.0	60	3.3	3 290	72	64	54	86	225	231	1.70	C3B7R456-*****
	44	2.3	60	3.7	3 220	64	57	48	116	120	125	1.65	C3B7R446-*****
	54	2.7	65	3.4	3 190	63	55	47	116	140	145	1.90	C3B7R546-*****
	88	1.4	60	2.5	6 440	98	87	73	116	225	230	3.00	C3B7R886-*****
	110	1.6	60	2.3	6 510	97	85	72	116	265	270	3.45	C3B7R117-*****
	61	2.0	60	3.0	4 460	72	63	51	136	120	125	2.25	C3B7R616-*****
	75	2.3	65	2.8	4 440	71	61	50	136	140	145	2.55	C3B7R756-*****
	120	1.3	60	2.2	8 780	100	92	75	136	225	230	4.05	C3B7R127-*****
	150	1.5	60	2.0	8 880	100	92	75	136	265	270	4.70	C3B7R157-*****
4 000	24	4.2	65	4.6	1 650	42	37	32	86	140	146	1.10	C3B3G246-*****
	38	2.1	60	3.3	3 230	70	62	53	86	225	231	1.70	C3B3G386-*****
	37	2.4	60	3.7	3 140	63	55	47	116	120	125	1.65	C3B3G376-*****
	46	2.8	65	3.4	3 160	61	54	46	116	140	145	1.90	C3B3G466-*****
	74	1.5	60	2.5	6 290	96	85	72	116	225	230	3.00	C3B3G746-*****
	92	1.7	60	2.3	6 330	94	83	70	116	265	270	3.45	C3B3G926-*****
	52	2.1	60	3.0	4 420	71	62	50	136	120	125	2.25	C3B3G526-*****
	64	2.3	65	2.8	4 400	69	60	49	136	140	145	2.55	C3B3G646-*****
	100	1.3	60	2.2	8 500	100	90	73	136	225	230	4.05	C3B3G107-*****
	130	1.5	60	2.0	8 940	100	91	37	136	265	270	4.65	C3B3G137-*****

备注 Note: 1. “.”表示容量偏差。 “.”=capacitance tolerance code, J=±5.0%, K=±10%.

2. “*****”表示内部特征码。 “*****”=Internal use

3. “I_{max}”是指在环境温度(40°C, 50°C, 60°C)下的最大允许电流有效值。在这种条件下, 热点温度将达到最大值。

“I_{max}” = Maxium allowable r.m.s current at θ_{amb}(40°C, 50°C, 60°C). θ_{hs} will reach the maximum value on this condition.

4. “R_{th}”是指在自然冷却条件下, 电容器热点到环境的热阻。 “R_{th}” = R_{th} between hotspot and ambient on natural cooling condition.

5. 上表中所列的尺寸为本产品系列中的常用壳号尺寸, 其它规格尺寸也可以生产。

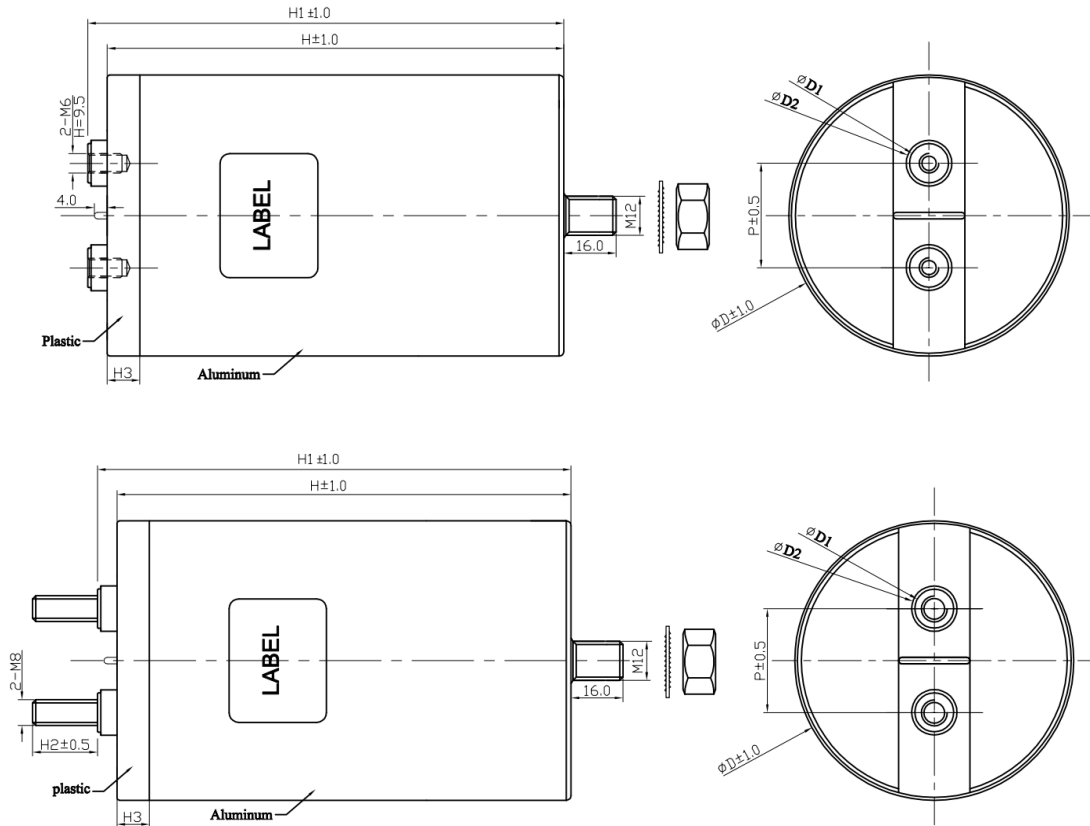
Sizes above are normally used dimension, other dimension can be produced in pursuance of customer's request.

6. *θ_{hs} = θ_{amb} + I_{rms}² × ESR × R_{th}.



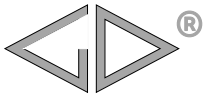
铝壳干式直流滤波电容器(小型化) DC-Link Capacitor(Dry-Type, Aluminum case Miniature version)

■ 外形图 Outline Drawing



尺寸附加说明 Additional remark of dimensions

D=76mm	P=32mm; D1=12mm; D2=14mm; H3=10mm	
D=86mm	P=32mm; D1=12mm; D2=14mm; H3=10mm or 45mm	
	P=45mm;	Female terminals: D1=14mm; D2=16mm; H3=10mm or 45mm
		Male terminals: D1=16mm; D2=20mm; H3=10mm or 45mm
D=100mm	P=50mm; D1=14mm; D2=16mm;	H ≤ 100mm, H3=10mm
		H > 100mm, H3=45mm
D=116mm	P=50mm; D1=14mm; D2=16mm;	H ≤ 100mm, H3=10mm
		H > 100mm, H3=45mm
H3 can be changed in pursuance of customer's request. (H3=45mm when rated voltage > 1 500Vdc)		



C3B

■ 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，能承受较大的纹波电流
- 自感小
- 有自愈性
- 寿命长
- 铝壳，树脂灌封

■ 应用场合

- 太阳能发电用变频器上

■ Features

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

■ Applications

- Used in inverters of solar power

■ 安全认证 Safety Approvals

	TUV Rheinland (德国)	EN 61071:2007, EN 61881-1:2011, 600Vdc ~ 4 000Vdc, 5 μ F~5600 μ F, -40°C/85°C, 证书号 (Certificate No.): R 50266039
	UL (美国)	UL 810 (construction only), max.5000Vdc, 90°C File No.: E256238 CCN: CZDS2

■ 技术要求 Specifications

引用标准 Reference Standard	GB/T 17702 (IEC 61071)	
气候类别 Climatic Category	D \leq 116mm: 40/85/56	
工作温度范围 Operating Temperature Range	D \leq 116mm: -40°C~ 85°C ($\theta_{hs}\leq$ 85°C)	
贮存温度范围 Storage temperature range	-40°C~ 85°C	
电压范围 Voltage Range	600Vdc~ 1 500Vdc	
电容量范围 Capacitance Range	110 μ F~ 3 400 μ F	
电容量偏差 Capacitance Tolerance	\pm 5%(J), \pm 10%(K)	
耐电压(两极之间) Test Voltage Between Terminals	1.5 U_N (10s, 20°C \pm 5°C)	
耐电压(极壳之间) Test Voltage Between Terminals And Case	$U_N < 1 500Vdc, 3 000Vac(10s, 50Hz, 20°C\pm 5°C)$ $U_N \geq 1 500Vdc, (\sqrt{2} U_N + 1 000)Vac(10s, 50Hz, 20°C\pm 5°C)$	
介质损耗角正切 $\tan\delta_d$	2×10^{-4}	
$IR \times C_N$	$\geq 5 000s$ (20°C, 500Vdc, 1min)	
过电压 Over Voltage	1.1 U_N (30% of on-load-dur.)	
	1.15 U_N (30min/day)	
	1.2 U_N (5min/day)	
	1.3 U_N (1min/day)	
	1.5 U_N (30ms every time, 1000times during the life of the capacitor)	
预期寿命 Expected lifetime	100 000h @ $U_N, \theta_{hs}=70^\circ C$	
失效率 Failure rate	50 FIT	
最高使用海拔 Max. Altitude	2 000m	
安装 Installation	方向 Position	任意方向 Any Position
	引出端形式 Terminal form	螺栓式 Male Terminals
		螺孔式 Thread hole type
	安装形式 Fixed style	下部螺栓 Bottom-bolt
中部卡圈 Ring-clip in the middle of case		
最大安装扭矩 Max. Torque of Installation	10N·m	
最大电极扭矩 Max. Torque of terminals	M6:5N·m	M8:6N·m

备注：如果海拔使用高度超过了 2 000m，应该考虑海拔对对流冷却和外绝缘的影响。

The effect of altitude on convection cooling and external insulation should be taken into consideration, if the altitude exceeds 2 000m.



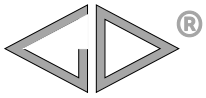
■ 产品编码说明 Part number system

15 位产品代码如下：

The 15 digits part number is formed as follow:

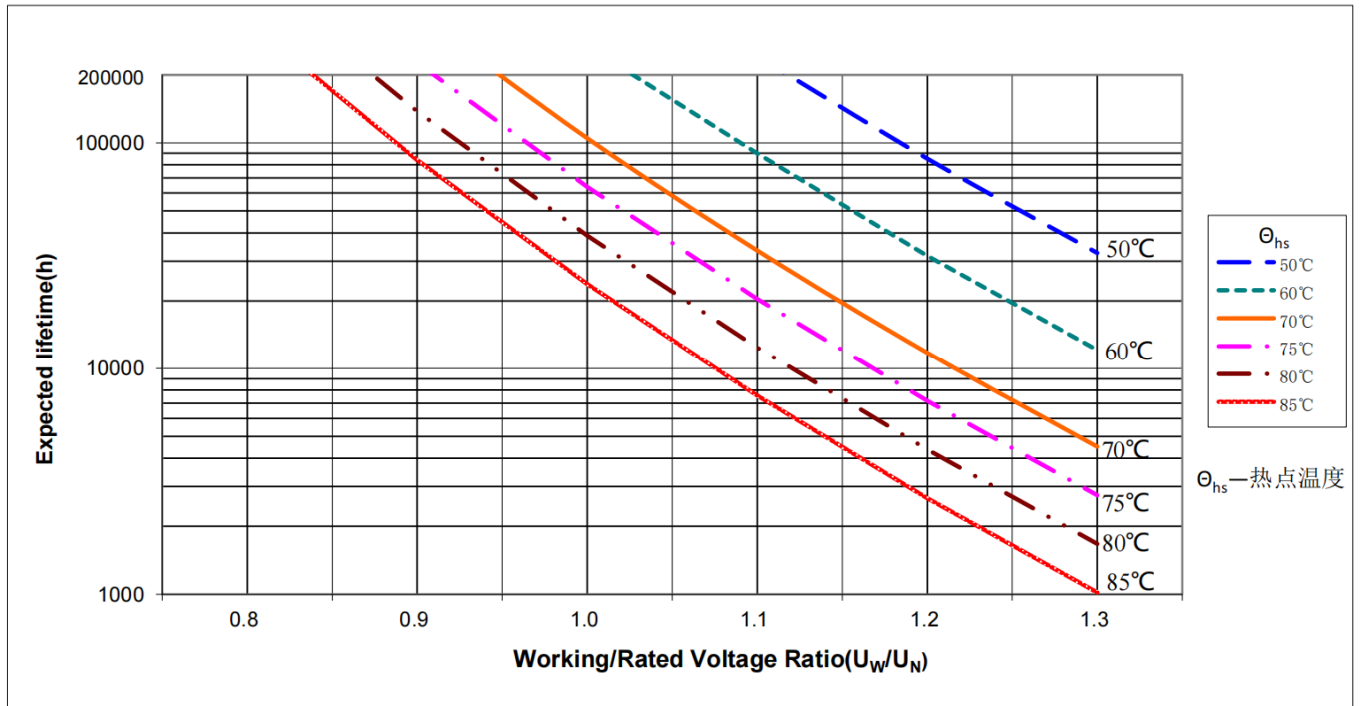
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	3	B												

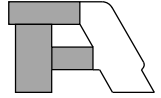
第 1~3 位	型号代码	Digit 1 to 3	Series code
第 4~5 位	直流额定电压	Digit 4 to 5	DC rated voltage
	1U=600V 3V=750V 2K=800V		1U=600V 3V=750V 2K=800V
	1X=900V 3A=1 000V 1M=1 100V		1X=900V 3A=1 000V 1M=1 100V
	3L=1 200V 2M=1 300V 3M=1 400V		3L=1 200V 2M=1 300V 3M=1 400V
	4M=1 500V		4M=1 500V
第 6~8 位	标称容量	Digit 6 to 8	Rated capacitance value
	举例：127=12×10 ⁷ pF=120μF		for example: 127=12×10 ⁷ pF=120μF
第 9 位	容量偏差	Digit 9	Capacitance tolerance
	J=±5%, K=±10%		J=±5%, K=±10%
第 10~15 位	内部特征码	Digit 10 to 15	Internal use



C3B

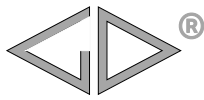
预期寿命曲线 Expected lifetime curve





■ 技术参数 Technical data

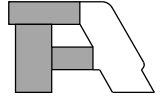
U _N (Vdc)	C _N (μF)	ESR @1kHz (mΩ)	L _s (nH)	R _{th} (K/W)	Ī (A)	I _{max} (A)			Dimension (mm)			Weight (kg)	Part number
						40°C	50°C	60°C	ΦD	H	H1		
600	580	1.5	45	5.6	1700	70	59	48	76	95	101	0.60	C3B1U587-*****
	800	1.8	50	4.7	1680	70	59	48	76	120	126	0.70	C3B1U807-*****
	960	2.1	55	4.6	1670	64	56	46	76	140	146	0.75	C3B1U967-*****
	1000	1.1	40	4.3	3260	70	70	70	76	155	161	0.90	C3B1U108-*****
	1200	1.1	45	4.2	3410	70	70	70	76	174	180	1.00	C3B1U128-*****
	720	1.4	45	5.1	2120	70	70	53	86	95	101	0.72	C3B1U727-*****
	1100	1.5	50	4.7	2310	70	65	53	86	120	126	1.00	C3B1U118-*****
	1200	1.7	55	4.6	2180	70	62	50	86	136	142	1.10	C3B1U128-*****
	1300	1.7	55	4.6	2260	70	61	50	86	140	146	1.15	C3B1U138-*****
	1400	1.0	40	4.4	4560	70	70	70	86	155	161	1.25	C3B1U148-*****
	1600	1.0	45	4.3	4550	70	70	70	86	174	180	1.30	C3B1U168-*****
	2300	0.9	55	3.0	6540	70	70	70	86	252	258	1.80	C3B1U238-*****
	1000	1.2	45	4.7	2940	70	70	58	100	95	100	1.19	C3B1U108-*****
	1300	1.5	50	4.1	2730	70	70	57	100	120	125	1.45	C3B1U138-*****
	1600	1.6	55	3.9	2910	70	70	57	100	136	141	1.63	C3B1U168-*****
	1700	1.6	55	3.8	2950	70	70	58	100	140	145	1.67	C3B1U178-*****
	1700	1.0	40	3.5	5540	70	70	70	100	155	160	1.96	C3B1U178-*****
	2000	1.0	45	3.2	5680	70	70	70	100	174	179	2.26	C3B1U208-*****
	1300	1.2	45	5.4	3820	79	69	56	116	95	100	1.20	C3B1U138-*****
	1800	1.3	50	5.0	3780	78	68	55	116	120	125	1.50	C3B1U188-*****
2100	1.4	55	4.9	3650	75	65	53	116	140	145	1.75	C3B1U218-*****	
2300	1.0	40	3.6	7490	100	93	76	116	158	163	2.00	C3B1U238-*****	
2600	1.0	45	3.4	7390	100	95	77	116	174	179	2.20	C3B1U268-*****	
3400	0.9	50	2.7	1070	100	100	90	116	230	235	2.80	C3B1U348-*****	
750	520	1.6	45	5.6	1750	70	57	47	76	95	101	0.60	C3B3V527-*****
	700	2.0	50	4.7	1680	66	57	46	76	120	126	0.70	C3B3V707-*****
	850	2.3	55	4.6	1690	62	54	44	76	140	146	0.75	C3B3V857-*****
	900	1.1	40	4.3	3360	70	70	70	76	155	161	0.90	C3B3V907-*****
	1000	1.2	45	4.2	3250	70	70	70	76	174	180	1.00	C3B3V108-*****
	680	1.4	45	5.1	2290	70	65	53	86	95	101	0.72	C3B3V687-*****
	900	1.7	50	4.7	2160	70	61	50	86	120	126	1.00	C3B3V907-*****
	1100	1.8	55	4.6	2290	70	60	49	86	136	142	1.10	C3B3V118-*****
	1200	1.8	55	4.6	2390	70	60	49	86	140	146	1.15	C3B3V128-*****
	1200	1.0	40	4.4	4470	70	70	70	86	155	161	1.25	C3B3V128-*****
	1400	1.0	45	4.3	4560	70	70	70	86	174	180	1.30	C3B3V148-*****
	2000	0.9	55	3.0	6510	70	70	70	86	252	258	1.80	C3B3V208-*****
	870	1.3	45	4.7	2870	70	70	57	100	95	100	1.19	C3B3V877-*****
	1200	1.5	50	4.1	2830	70	69	56	100	120	125	1.45	C3B3V128-*****
	1400	1.7	55	3.9	2850	70	68	56	100	136	141	1.63	C3B3V148-*****
	1500	1.7	55	3.8	2920	70	69	56	100	140	145	1.67	C3B3V158-*****
	1500	1.0	40	3.5	5480	70	70	70	100	155	160	1.96	C3B3V158-*****
	1700	1.1	45	3.2	5420	70	70	70	100	174	179	2.26	C3B3V178-*****
	1100	1.2	45	5.4	3620	79	68	56	116	95	100	1.20	C3B3V118-*****
	1600	1.4	50	5.0	3770	77	66	54	116	120	125	1.50	C3B3V168-*****
	1800	1.5	55	4.9	3510	73	63	52	116	140	145	1.75	C3B3V188-*****
	2000	1.0	40	3.6	7300	100	92	75	116	158	163	2.00	C3B3V208-*****
	2300	1.0	45	3.4	7330	100	94	76	116	174	179	2.20	C3B3V238-*****
3000	0.9	50	2.7	10950	100	100	90	116	230	235	2.80	C3B3V308-*****	



C3B

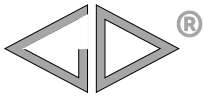
■ 技术参数 Technical data

U _N (Vdc)	C _N (μF)	ESR @1kHz (mΩ)	L _s (nH)	R _{th} (K/W)	î (A)	I _{max} (A)			Dimension (mm)			Weight (kg)	Part number
						40°C	50°C	60°C	ΦD	H	H1		
800	370	1.7	45	5.6	1 610	64	56	45	76	95	101	0.60	C3B2K377-*****
	500	2.1	50	4.7	1 560	64	55	45	76	120	126	0.70	C3B2K507-*****
	600	2.4	55	4.6	1 540	60	52	42	76	140	146	0.75	C3B2K607-*****
	660	1.1	40	4.3	3 180	70	70	70	76	155	161	0.90	C3B2K667-*****
	730	1.2	45	4.2	3 070	70	70	70	76	174	180	1.00	C3B2K737-*****
	490	1.5	45	5.1	2 130	70	63	51	86	95	101	0.72	C3B2K497-*****
	670	1.8	50	4.7	2 080	70	60	49	86	120	126	1.00	C3B2K677-*****
	770	1.9	55	4.6	2 070	70	58	48	86	136	142	1.10	C3B2K777-*****
	780	2.0	55	4.6	2 010	66	57	47	86	140	146	1.15	C3B2K787-*****
	850	1.0	40	4.4	4 100	70	70	70	86	155	161	1.25	C3B2K857-*****
	970	1.1	45	4.3	4 080	70	70	70	86	174	180	1.30	C3B2K977-*****
	1 400	1.0	55	3.0	5 890	70	70	70	86	252	258	1.80	C3B2K148-*****
	640	1.4	45	4.7	2 730	70	69	56	100	95	100	1.19	C3B2K647-*****
	850	1.7	50	4.1	2 600	70	67	54	100	120	125	1.45	C3B2K857-*****
	1 000	1.8	55	3.9	2 640	70	66	54	100	136	141	1.63	C3B2K108-*****
	1 000	1.9	55	3.8	2 530	70	65	53	100	140	145	1.67	C3B2K108-*****
	1 100	1.1	40	3.5	5 210	70	70	70	100	155	160	1.96	C3B2K118-*****
	1 300	1.1	45	3.2	5 370	70	70	70	100	174	179	2.26	C3B2K138-*****
	800	1.2	45	5.4	3 420	77	67	55	116	95	100	1.20	C3B2K807-*****
	1 100	1.5	50	5.0	3 360	74	64	52	116	120	125	1.50	C3B2K118-*****
1 400	1.6	55	4.9	3 540	72	63	51	116	140	145	1.75	C3B2K148-*****	
1 500	1.0	40	3.6	7 100	100	91	75	116	158	163	2.00	C3B2K158-*****	
1 700	1.0	45	3.4	7 020	100	93	76	116	174	179	2.20	C3B2K178-*****	
2 200	0.9	50	2.7	10 410	100	100	89	116	230	235	2.80	C3B2K228-*****	
900	370	1.7	45	5.6	1 610	64	56	45	76	95	101	0.60	C3B1X377-*****
	500	2.1	50	4.7	1 560	64	55	45	76	120	126	0.70	C3B1X507-*****
	600	2.4	55	4.6	1 540	60	52	42	76	140	146	0.75	C3B1X607-*****
	660	1.1	40	4.3	3 180	70	70	70	76	155	161	0.90	C3B1X667-*****
	730	1.2	45	4.2	3 070	70	70	70	76	174	180	1.00	C3B1X737-*****
	490	1.5	45	5.1	2 130	70	63	51	86	95	101	0.72	C3B1X497-*****
	670	1.8	50	4.7	2 080	70	60	49	86	120	126	1.00	C3B1X677-*****
	770	1.9	55	4.6	2 070	70	58	48	86	136	142	1.10	C3B1X777-*****
	780	2.0	55	4.6	2 010	66	57	47	86	140	146	1.15	C3B1X787-*****
	850	1.0	40	4.4	4 100	70	70	70	86	155	161	1.25	C3B1X857-*****
	970	1.1	45	4.3	4 080	70	70	70	86	174	180	1.30	C3B1X977-*****
	1 400	1.0	55	3.0	5 890	70	70	70	86	252	258	1.80	C3B1X148-*****
	640	1.4	45	4.7	2 730	70	68	55	100	95	100	1.19	C3B1X647-*****
	850	1.7	50	4.1	2 600	70	66	54	100	120	125	1.45	C3B1X857-*****
	1 000	1.8	55	3.9	2 640	70	65	53	100	136	141	1.63	C3B1X108-*****
	1 000	1.9	55	3.8	2 530	70	64	52	100	140	145	1.67	C3B1X108-*****
	1 100	1.1	40	3.5	5 210	70	70	70	100	155	160	1.96	C3B1X118-*****
	1 300	1.1	45	3.2	5 370	70	70	70	100	174	179	2.26	C3B1X138-*****
	800	1.3	45	5.4	3 420	76	66	54	116	95	100	1.20	C3B1X807-*****
	1 100	1.5	50	5.0	3 360	73	63	52	116	120	125	1.50	C3B1X118-*****
1 400	1.6	55	4.9	3 540	71	62	50	116	140	145	1.75	C3B1X148-*****	
1 500	1.0	40	3.6	7 100	100	91	74	116	158	163	2.00	C3B1X158-*****	
1 700	1.0	45	3.4	7 020	100	92	75	116	174	179	2.20	C3B1X178-*****	
2 200	0.9	50	2.7	10 410	100	100	89	116	230	235	2.80	C3B1X228-*****	



■ 技术参数 Technical data

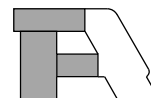
U _N (Vdc)	C _N (μF)	ESR @1kHz (mΩ)	L _s (nH)	R _{th} (K/W)	Ī (A)	I _{max} (A)			Dimension (mm)			Weight (kg)	Part number
						40°C	50°C	60°C	ΦD	H	H1		
1000	300	1.8	45	5.6	1 640	63	55	45	76	95	101	0.60	C3B3A307-*****
	400	2.3	50	4.7	1 560	60	52	43	76	120	126	0.70	C3B3A407-*****
	490	2.7	55	4.6	1 580	57	49	40	76	140	146	0.75	C3B3A497-*****
	530	1.2	40	4.3	3 210	70	70	62	76	155	161	0.90	C3B3A537-*****
	590	1.3	45	4.2	3 120	70	70	61	76	174	180	1.00	C3B3A597-*****
	400	1.5	45	5.1	2 180	70	62	51	86	95	101	0.72	C3B3A407-*****
	540	1.9	50	4.7	2 110	70	58	47	86	120	126	1.00	C3B3A547-*****
	620	2.1	55	4.6	2 090	64	55	45	86	136	142	1.10	C3B3A627-*****
	640	2.2	55	4.6	2 070	63	54	44	86	140	146	1.15	C3B3A647-*****
	680	1.1	40	4.4	4 120	70	70	70	86	155	161	1.25	C3B3A687-*****
	780	1.1	45	4.3	4 120	70	70	70	86	174	180	1.30	C3B3A787-*****
	1 100	1.0	55	3.0	5 810	70	70	70	86	252	258	1.80	C3B3A118-*****
	460	1.5	45	4.7	2 510	70	65	53	100	95	100	1.19	C3B3A467-*****
	650	1.8	50	4.1	2 540	70	64	52	100	120	125	1.45	C3B3A657-*****
	750	2.0	55	3.9	2 530	70	63	51	100	136	141	1.63	C3B3A757-*****
	800	2.0	55	3.8	2 580	70	63	51	100	140	145	1.67	C3B3A807-*****
	850	1.1	40	3.5	5 140	70	70	70	100	155	160	1.96	C3B3A857-*****
	950	1.2	45	3.2	5 020	70	70	70	100	174	179	2.26	C3B3A957-*****
	600	1.3	45	5.4	3 280	75	65	53	116	95	100	1.20	C3B3A607-*****
	850	1.6	50	5.0	3 320	72	62	51	116	120	125	1.50	C3B3A857-*****
1 000	1.8	55	4.9	3 230	68	59	48	116	140	145	1.75	C3B3A108-*****	
1 100	1.0	40	3.6	6 660	100	90	73	116	158	163	2.00	C3B3A118-*****	
1 200	1.1	45	3.4	6 340	100	90	74	116	174	179	2.20	C3B3A128-*****	
1 600	1.0	50	2.7	9 680	100	100	88	116	230	235	2.80	C3B3A168-*****	
1100	220	1.9	45	5.6	1 630	61	53	43	76	95	101	0.60	C3B1M227-*****
	300	2.5	50	4.7	1 570	58	50	41	76	120	126	0.70	C3B1M307-*****
	360	3.0	55	4.6	1 510	54	47	38	76	140	146	0.75	C3B1M367-*****
	400	1.3	40	4.3	3 150	70	70	60	76	155	161	0.90	C3B1M407-*****
	440	1.4	45	4.2	3 020	70	70	59	76	174	180	1.00	C3B1M447-*****
	300	1.6	45	5.1	2 130	70	60	49	86	95	101	0.72	C3B1M307-*****
	400	2.1	50	4.7	2 030	63	55	45	86	120	126	1.00	C3B1M407-*****
	450	2.4	55	4.6	1 980	60	52	43	86	136	142	1.10	C3B1M457-*****
	500	1.2	40	4.4	3 940	70	70	62	86	155	161	1.25	C3B1M507-*****
	580	1.2	45	4.3	3 990	70	70	62	86	174	180	1.30	C3B1M587-*****
	840	1.1	55	3.0	5 770	70	70	70	86	252	258	1.80	C3B1M847-*****
	360	1.5	45	4.7	2 560	70	65	53	100	95	100	1.19	C3B1M367-*****
	480	1.9	50	4.1	2 440	70	62	50	100	120	125	1.45	C3B1M487-*****
	550	2.1	55	3.9	2 420	70	60	49	100	136	141	1.63	C3B1M557-*****
	580	2.2	55	3.8	2 440	70	61	49	100	140	145	1.67	C3B1M587-*****
	600	1.2	40	3.5	4 720	70	70	70	100	155	160	1.96	C3B1M607-*****
	680	1.2	45	3.2	4 670	70	70	70	100	174	179	2.26	C3B1M687-*****
	460	1.4	45	5.4	3 270	73	64	52	116	95	100	1.20	C3B1M467-*****
	650	1.6	50	5.0	3 300	70	61	50	116	120	125	1.50	C3B1M657-*****
	780	1.8	55	4.9	3 280	67	58	48	116	140	145	1.75	C3B1M787-*****
810	1.1	40	3.6	6 380	100	88	72	116	158	163	2.00	C3B1M817-*****	
950	1.1	45	3.4	6 530	100	90	73	116	174	179	2.20	C3B1M957-*****	
1 300	1.0	50	2.7	10 230	100	100	87	116	230	235	2.80	C3B1M138-*****	



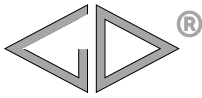
C3B

■ 技术参数 Technical data

U _N (Vdc)	C _N (μF)	ESR @1kHz (mΩ)	L _s (nH)	R _{th} (K/W)	Ī (A)	I _{max} (A)			Dimension (mm)			Weight (kg)	Part number
						40°C	50°C	60°C	ΦD	H	H1		
1200	180	2.1	45	5.6	1420	58	50	41	76	95	101	0.60	C3B3L187-*****
	250	2.8	50	4.7	1410	55	48	39	76	120	126	0.70	C3B3L257-*****
	310	3.2	55	4.6	1440	52	45	37	76	140	146	0.75	C3B3L317-*****
	330	1.3	40	4.3	2880	70	70	59	76	155	161	0.90	C3B3L337-*****
	370	1.4	45	4.2	2820	70	70	57	76	174	180	1.00	C3B3L377-*****
	250	1.7	45	5.1	1970	70	58	48	86	95	101	0.72	C3B3L257-*****
	340	2.2	50	4.7	1910	62	54	44	86	120	126	1.00	C3B3L347-*****
	380	2.5	55	4.6	1850	59	51	41	86	136	142	1.10	C3B3L387-*****
	400	2.6	55	4.6	1860	58	50	41	86	140	146	1.15	C3B3L407-*****
	420	1.2	40	4.4	3660	70	70	61	86	155	161	1.25	C3B3L427-*****
	480	1.3	45	4.3	3660	70	70	60	86	174	180	1.30	C3B3L487-*****
	700	1.1	55	3.0	5330	70	70	70	86	252	258	1.80	C3B3L707-*****
	320	1.6	45	4.7	2520	70	63	52	100	95	100	1.19	C3B3L327-*****
	440	2.0	50	4.1	2480	70	61	50	100	120	125	1.45	C3B3L447-*****
	500	2.2	55	3.9	2430	69	59	49	100	136	141	1.63	C3B3L507-*****
	540	2.2	55	3.8	2510	69	60	49	100	140	145	1.67	C3B3L547-*****
	560	1.2	40	3.5	4890	70	70	70	100	155	160	1.96	C3B3L567-*****
	640	1.2	45	3.2	4870	70	70	70	100	174	179	2.26	C3B3L647-*****
	420	1.4	45	5.4	3310	73	63	51	116	95	100	1.20	C3B3L427-*****
	580	1.7	50	5.0	3260	69	60	49	116	120	125	1.50	C3B3L587-*****
700	1.9	55	4.9	3260	66	57	47	116	140	145	1.75	C3B3L707-*****	
750	1.1	40	3.6	6540	100	88	72	116	158	163	2.00	C3B3L757-*****	
870	1.1	45	3.4	6630	100	89	73	116	174	179	2.20	C3B3L877-*****	
1100	1.0	50	2.7	9600	100	100	86	116	230	235	2.80	C3B3L118-*****	
1300	140	2.5	45	5.6	1330	53	46	38	76	95	101	0.60	C3B2M147-*****
	190	3.4	50	4.7	1290	50	43	35	76	120	126	0.70	C3B2M197-*****
	230	4.0	55	4.6	1290	47	40	33	76	140	146	0.75	C3B2M237-*****
	230	1.6	40	4.3	2420	70	70	53	76	155	161	0.90	C3B2M237-*****
	260	1.8	45	4.2	2390	70	64	52	76	174	180	1.00	C3B2M267-*****
	190	2.1	45	5.1	1810	62	54	44	86	95	101	0.72	C3B2M197-*****
	250	2.8	50	4.7	1700	55	48	39	86	120	126	1.00	C3B2M257-*****
	290	3.1	55	4.6	1700	53	46	37	86	136	142	1.10	C3B2M297-*****
	290	3.3	55	4.6	1630	51	44	36	86	140	146	1.15	C3B2M297-*****
	300	1.4	40	4.4	3160	70	70	57	86	155	161	1.25	C3B2M307-*****
	340	1.5	45	4.3	3130	70	70	55	86	174	180	1.30	C3B2M347-*****
	540	1.2	55	3.0	4970	70	70	70	86	252	258	1.80	C3B2M547-*****
	230	1.9	45	4.7	2190	67	58	47	100	95	100	1.19	C3B2M237-*****
	300	2.5	50	4.1	2040	62	54	44	100	120	125	1.45	C3B2M307-*****
	350	2.8	55	3.9	2060	61	53	43	100	136	141	1.63	C3B2M357-*****
	380	2.8	55	3.8	2140	61	53	43	100	140	145	1.67	C3B2M387-*****
	400	1.3	40	3.5	4210	70	70	66	100	155	160	1.96	C3B2M407-*****
	440	1.4	45	3.2	4050	70	70	66	100	174	179	2.26	C3B2M447-*****
	340	1.5	45	5.4	3230	69	60	49	116	95	100	1.20	C3B2M347-*****
	450	1.9	50	5.0	3060	64	56	45	116	120	125	1.50	C3B2M457-*****
540	2.2	55	4.9	3040	61	53	43	116	140	145	1.75	C3B2M547-*****	
560	1.2	40	3.6	5900	97	84	69	116	158	163	2.00	C3B2M567-*****	
650	1.2	45	3.4	5980	98	85	70	116	174	179	2.20	C3B2M657-*****	
850	1.0	50	2.7	8950	100	100	84	116	230	235	2.80	C3B2M857-*****	


■ 技术参数 Technical data

U _N (Vdc)	C _N (μF)	ESR @1kHz (mΩ)	L _s (nH)	R _{th} (K/W)	Ī (A)	I _{max} (A)			Dimension (mm)			Weight (kg)	Part number
						40°C	50°C	60°C	ΦD	H	H1		
1400	120	2.3	45	5.6	1 310	55	48	39	76	95	101	0.60	C3B3M127-*****
	160	3.2	50	4.7	1 250	52	45	37	76	120	126	0.70	C3B3M167-*****
	190	3.8	55	4.6	1 230	48	42	34	76	140	146	0.75	C3B3M197-*****
	190	1.6	40	4.3	2 300	70	70	55	76	155	161	0.90	C3B3M197-*****
	220	1.7	45	4.2	2 320	70	70	54	76	174	180	1.00	C3B3M227-*****
	160	1.9	45	5.1	1 740	64	55	45	86	95	101	0.72	C3B3M167-*****
	210	2.6	50	4.7	1 640	57	50	41	86	120	126	1.00	C3B3M217-*****
	250	2.8	55	4.6	1 690	55	48	39	86	136	142	1.10	C3B3M257-*****
	260	1.3	40	4.4	3 140	70	70	59	86	155	161	1.25	C3B3M267-*****
	290	1.4	45	4.3	3 060	70	70	57	86	174	180	1.30	C3B3M297-*****
	440	1.2	55	3.0	4 640	70	70	70	86	252	258	1.80	C3B3M447-*****
	200	2.1	45	4.7	2 320	64	56	45	100	95	100	1.19	C3B3M207-*****
	270	2.7	50	4.1	2 240	60	52	43	100	120	125	1.45	C3B3M277-*****
	310	3.0	55	3.9	2 130	58	50	41	100	136	141	1.63	C3B3M317-*****
	340	1.4	40	3.5	4 370	70	70	64	100	155	160	1.96	C3B3M347-*****
	380	1.5	45	3.2	4 270	70	70	64	100	174	179	2.26	C3B3M387-*****
	280	1.7	45	5.4	3 250	66	57	47	116	95	100	1.20	C3B3M287-*****
	380	2.1	50	5.0	3 150	61	53	43	116	120	125	1.50	C3B3M387-*****
	470	2.4	55	4.9	3 230	58	50	41	116	140	145	1.75	C3B3M477-*****
	480	1.2	40	3.6	6 170	95	82	67	116	158	163	2.00	C3B3M487-*****
560	1.3	45	3.4	6 290	96	83	68	116	174	179	2.20	C3B3M567-*****	
730	1.1	50	2.7	9 390	100	100	83	116	230	235	2.80	C3B3M737-*****	



C3B

■ 技术参数 Technical data

U _N (Vdc)	C _N (μF)	ESR @1kHz (mΩ)	L _s (nH)	R _{th} (K/W)	Î (A)	I _{max} (A)			Dimension (mm)			Weight (kg)	Part number
						40°C	50°C	60°C	ΦD	H	H1		
1500	110	2.5	45	5.6	1410	54	46	38	76	95	101	0.60	C3B4M117-*****
	150	3.3	50	4.7	1370	50	44	36	76	120	126	0.70	C3B4M157-*****
	170	4.1	55	4.6	1290	46	40	32	76	140	146	0.75	C3B4M177-*****
	180	1.6	40	4.3	2550	70	70	54	76	155	161	0.90	C3B4M187-*****
	200	1.8	45	4.2	2480	70	64	52	76	174	180	1.00	C3B4M207-*****
	140	2.1	45	5.1	1790	61	53	43	86	95	101	0.72	C3B4M147-*****
	190	2.8	50	4.7	1740	55	48	39	86	120	126	1.00	C3B4M197-*****
	220	3.1	55	4.6	1740	53	46	37	86	136	142	1.10	C3B4M227-*****
	240	1.4	40	4.4	3410	70	70	57	86	155	161	1.25	C3B4M247-*****
	270	1.5	45	4.3	3340	70	70	56	86	174	180	1.30	C3B4M277-*****
	410	1.2	55	3.0	5080	70	70	70	86	252	258	1.80	C3B4M417-*****
	180	2.2	45	4.7	2300	62	54	44	100	95	100	1.19	C3B4M187-*****
	230	3.0	50	4.1	2110	57	49	40	100	120	125	1.45	C3B4M237-*****
	270	3.4	55	3.9	2040	55	48	39	100	136	141	1.63	C3B4M277-*****
	300	1.5	40	3.5	4260	70	70	62	100	155	160	1.96	C3B4M307-*****
	340	1.6	45	3.2	4210	70	70	63	100	174	179	2.26	C3B4M347-*****
	240	1.9	45	5.4	3070	63	55	45	116	95	100	1.20	C3B4M247-*****
	330	2.4	50	5.0	3020	58	50	41	116	120	125	1.50	C3B4M337-*****
	400	2.7	55	4.9	3030	55	48	39	116	140	145	1.75	C3B4M407-*****
	430	1.3	40	3.6	6100	93	80	66	116	158	163	2.00	C3B4M437-*****
490	1.4	45	3.4	6070	93	81	66	116	174	179	2.20	C3B4M497-*****	
630	1.1	50	2.7	8940	100	99	81	116	230	235	2.80	C3B4M637-*****	

备注 Note: 1. “-”表示容量偏差。 “-”=capacitance tolerance code, J=±5.0%, K=±10%.

2. “*****”表示内部特征码。 “*****”=Internal use

3. “I_{max}”是指在环境温度(40°C, 50°C, 60°C)下的最大允许电流有效值。在这种条件下, 热点温度将达到最大值。

“I_{max}” = Maxium allowable r.m.s current at θ_{amb}(40°C, 50°C, 60°C). θ_{hs} will reach the maximum value on this condition.

4. “R_{th}”是指在自然冷却条件下, 电容器热点到环境的热阻。 “R_{th}” = R_{th} between hotspot and ambient on natural cooling condition.

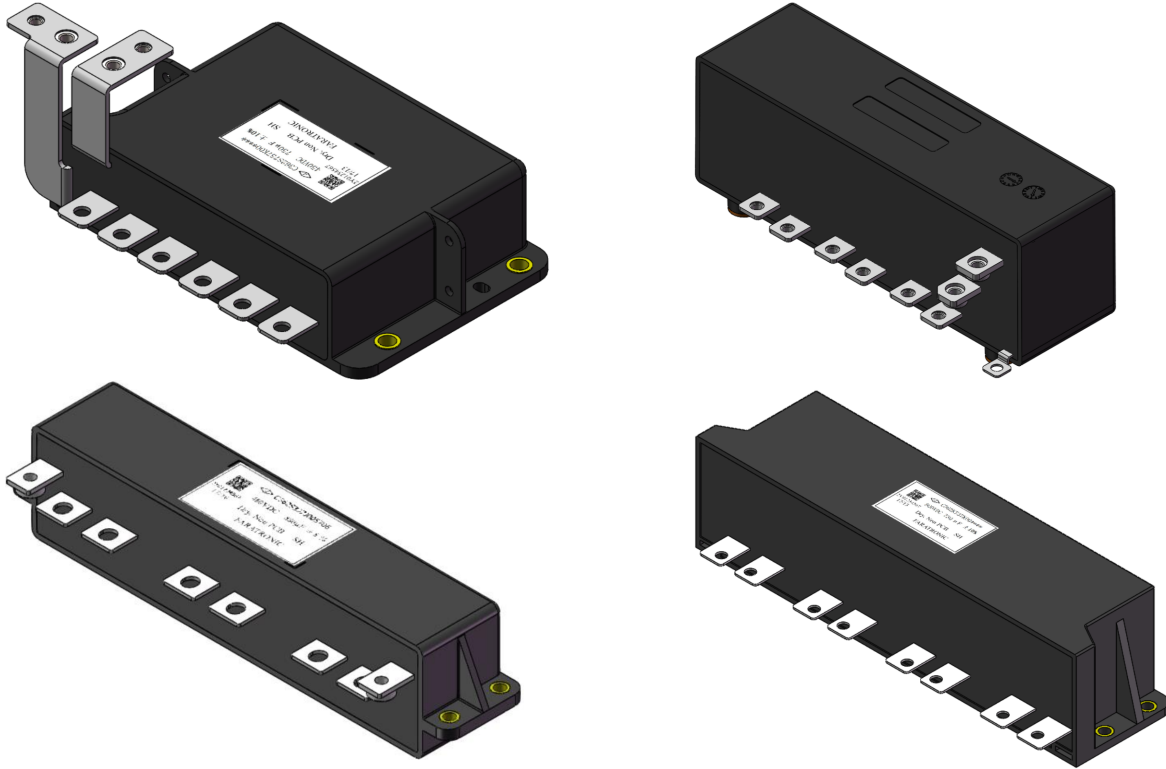
5. 上表中所列的尺寸为本产品系列中的常用壳号尺寸, 其它规格尺寸也可以生产。

Sizes above are normally used dimension, other dimension can be produced in pursuance of customer's request.

6. *θ_{hs} = θ_{amb} + I_{rms}² × ESR × R_{th}.

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
- 树脂灌封

■ 应用场合

- 交通工具，如：电动车和混合动力车

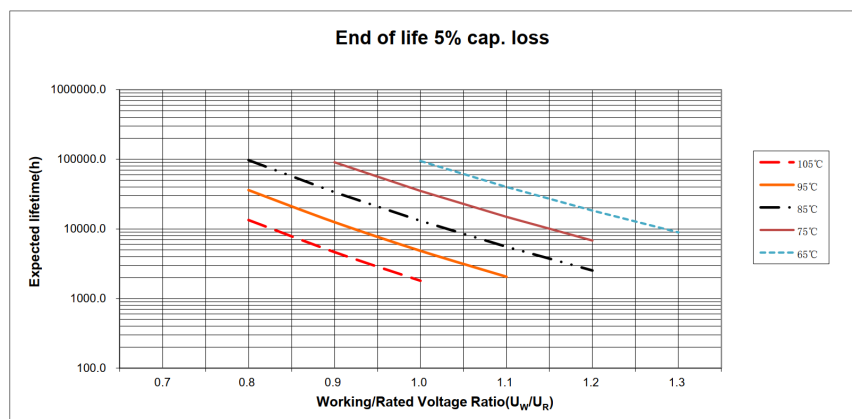
■ Features

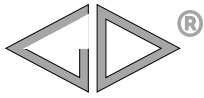
- Used in DC-Link circuits, can replace electrolytic capacitor
- Low ESR, high ripple current handling capabilities
- Low Ls
- Self-healing property
- Long lifetime
- Filled with resin

■ Applications

- Transportation: EV or HEV

■ 预期寿命曲线 Expected lifetime curve





C36

■ 产品代码 Part number

C362S757K0*****

■ 技术参数 Technical Data

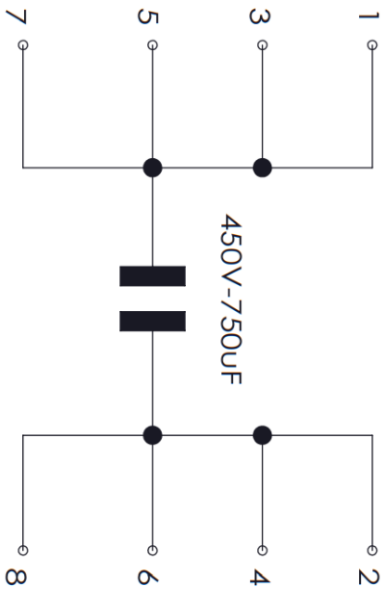
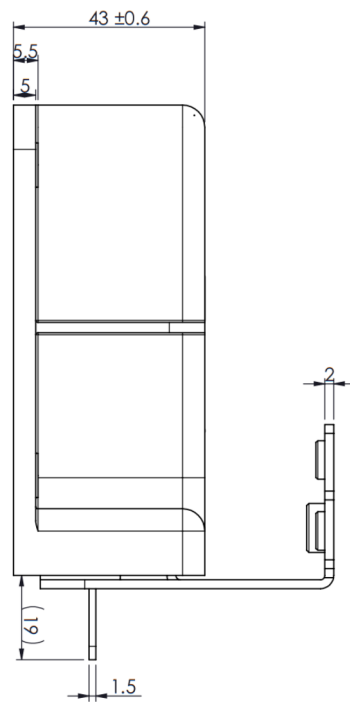
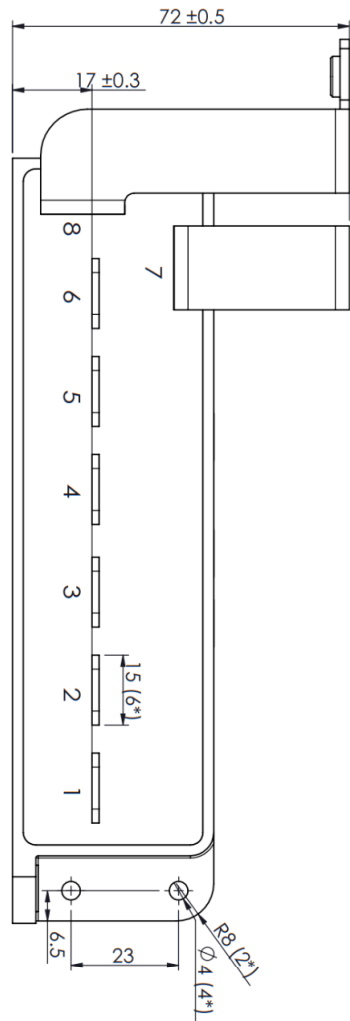
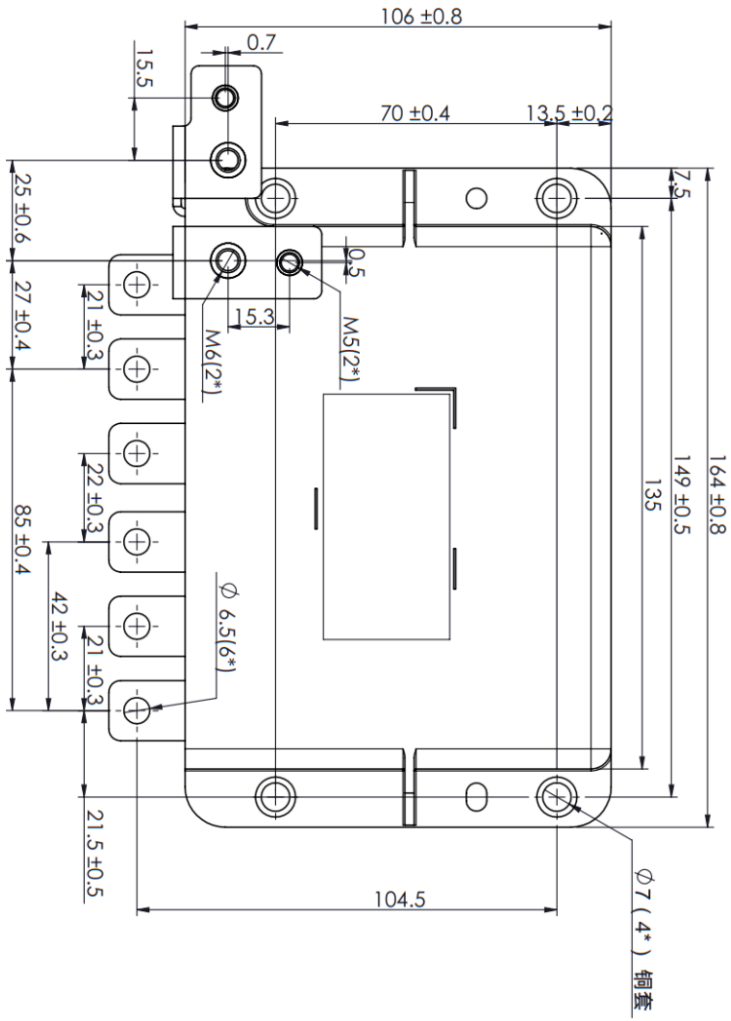
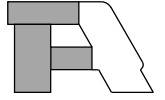
引用标准 Reference Standard	GB/T 17702(IEC 61071)、AEC-Q200D-2010	
气候类别 Climatic Category	40/105/56	
工作温度范围 Operating temperature range	-40°C~105°C ($\theta_{hs} \leq 105^\circ\text{C}$)	
贮存温度范围 Storage temperature range	-40°C~105°C	
额定电压 (U_N) Rated voltage	450Vdc	
额定电容量 (C_N) Rated capacitance	750 μ F	
电容量偏差 Capacitance Tolerance	$\pm 10\%$ (K)	
耐电压 Voltage Proof	极间 Between Terminals:	1.5 U_N (10s, 20°C \pm 5°C)
	极壳之间 Between Terminals And Case:	3 000Vac(10s, 50Hz, 20°C \pm 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)	$\leq 0.36\text{m}\Omega$	
自感 L_s	$\leq 16\text{nH}@1\text{MHz}$ (measure at center of holes)	
热阻(热点到外壳) $R_{thhc}(\theta_{hs} \text{ to } \theta_{case})$	1.2K/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, $\theta_{amb} \leq 85^\circ\text{C}$, $\theta_{IGBT-terminal} \leq 95^\circ\text{C}$)	
\hat{i}	4 300A ($t \leq 10\mu\text{s}$, interval time $\geq 1.3\text{s}$)	
\hat{i}_s	12 900A ($\leq 30\text{ms}$ every time, 1 000 times during lifetime)	
U_s	600Vdc	
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)	164mm \times 106mm \times 43mm	
重量 Weight	$\approx 1.1\text{kg}$	

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

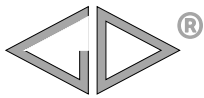
*ESR: 电容器内部串联电阻总和。

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

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



内部连接图



C36

■ 产品代码 Part number

C362H857K2*****

■ 技术参数 Technical Data

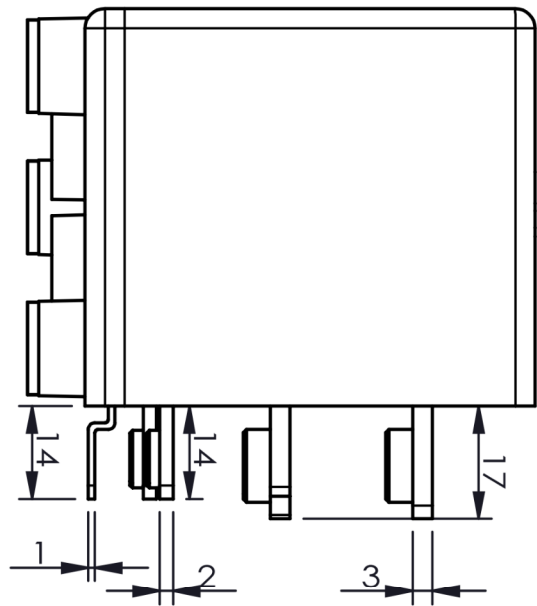
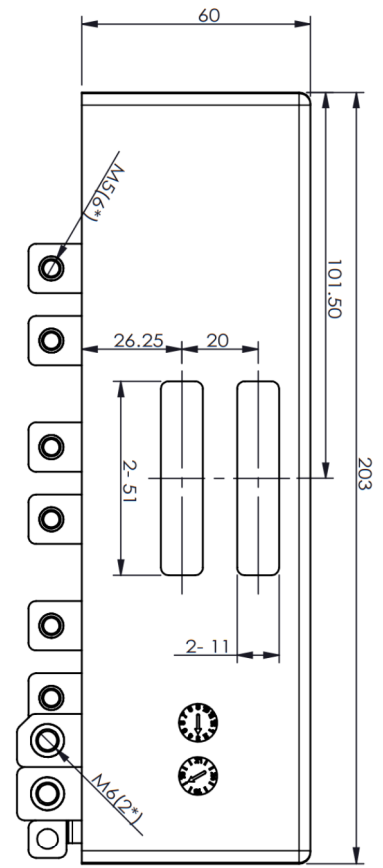
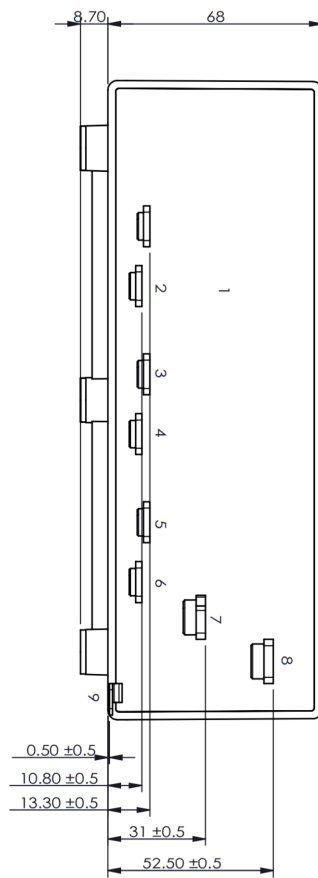
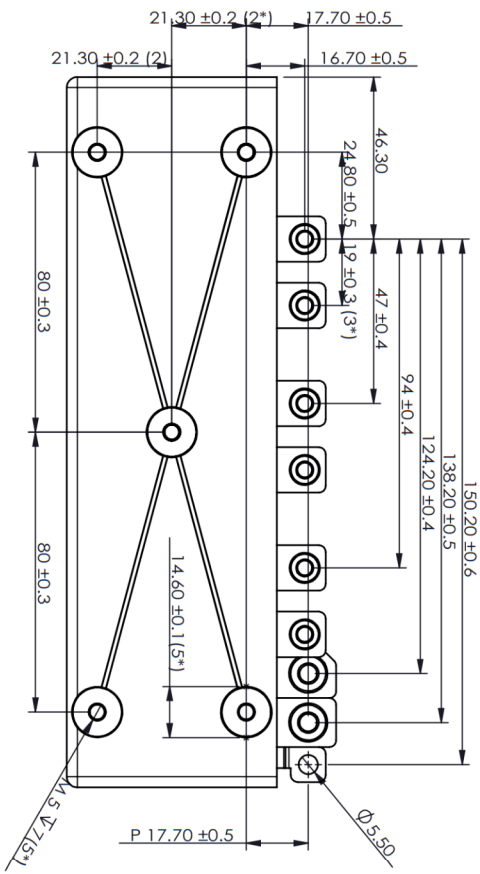
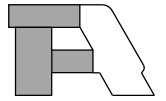
引用标准 Reference Standard	GB/T 17702(IEC 61071)、AEC-Q200D-2010	
气候类别 Climatic Category	40/105/56	
工作温度范围 Operating temperature range	-40°C~105°C ($\theta_{hs} \leq 105^\circ\text{C}$)	
贮存温度范围 Storage temperature range	-40°C~105°C	
额定电压 (U_N) Rated voltage	450Vdc	
额定电容量 (C_N) Rated capacitance	850 μ F	
电容量偏差 Capacitance Tolerance	$\pm 10\%$ (K)	
耐电压 Voltage Proof	极间 Between Terminals:	1.5 U_N (10s, 20°C \pm 5°C)
	极壳之间 Between Terminals And Case:	3 000Vac(10s, 50Hz, 20°C \pm 5°C)
	Y 电容极间 Between Terminals @ClassY:	3 000Vdc (2s, 25°C \pm 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	$\leq 15\text{nH}@1\text{MHz}$ (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($l \times w \times h$)	203mm \times 68mm \times 60mm	
重量 Weight	$\approx 1.8\text{kg}$	

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

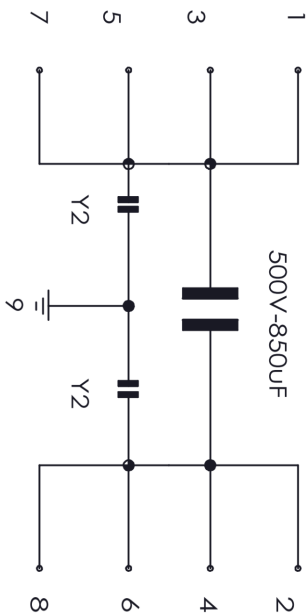
*ESR: 电容器内部串联电阻总和。

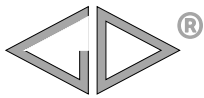
*ESR: The sum of all ohmic resistances occurring inside the capacitor.

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



内部连接图





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	330 μ F	
电容量偏差 Capacitance Tolerance	$\pm 5\%$ (J)	
耐电压 Voltage Proof	极间 Between Terminals:	1.5 U_N (10s, 20°C \pm 5°C)
	极壳之间 Between Terminals And Case:	3 000Vac(10s, 50Hz, 20°C \pm 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 \times 41mm \times 80mm	
重量 Weight	$\approx 0.75\text{kg}$	

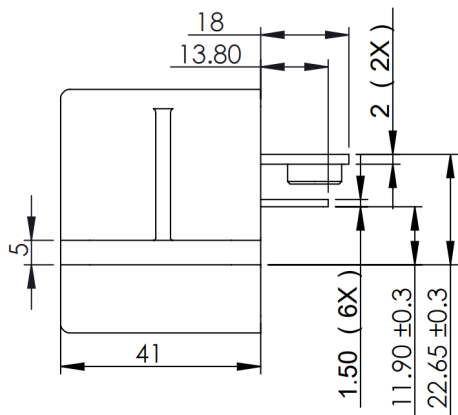
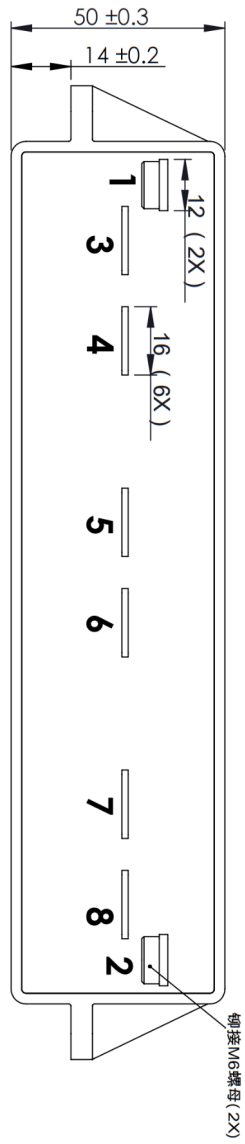
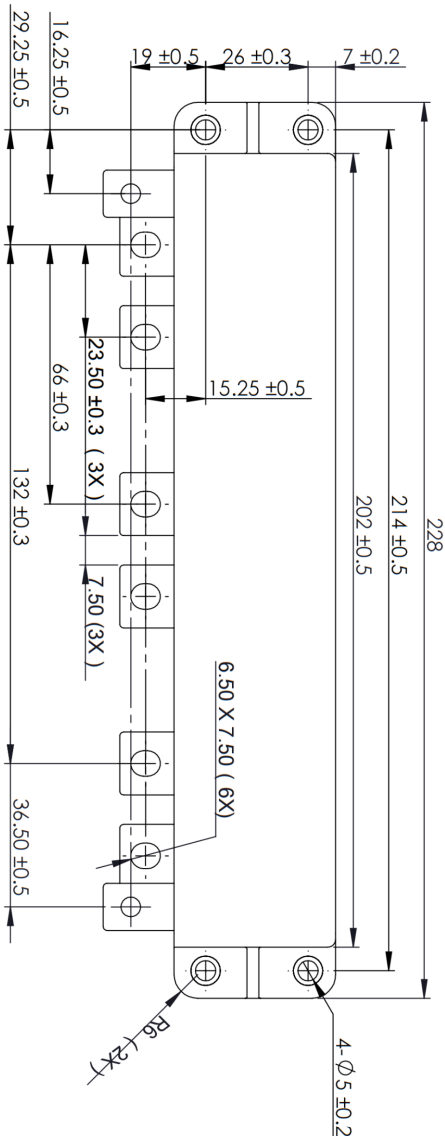
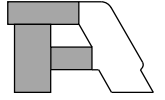
* θ_{case} : 外壳温度。

* θ_{case} : Temperature of case.

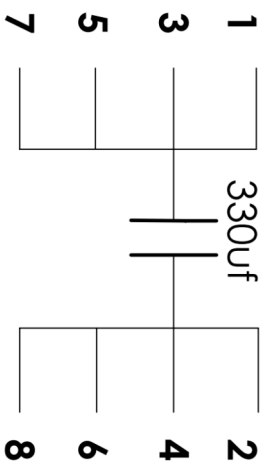
*ESR: 电容器内部串联电阻总和。

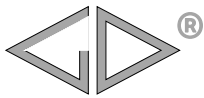
*ESR: The sum of all ohmic resistances occurring inside the capacitor.

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



内部连接图





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	730 μF	
电容量偏差 Capacitance Tolerance	$\pm 10\%$ (K)	
耐电压 Voltage Proof	极间 Between Terminals:	1.5 U_N (10s, 20°C \pm 5°C)
	极壳之间 Between Terminals And Case:	3 000Vac(10s, 50Hz, 20°C \pm 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	$\leq 25\text{nH}$ @1MHz (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 \times w \times h)	275mm \times 72mm \times 70mm	
重量 Weight	$\approx 2.2\text{kg}$	

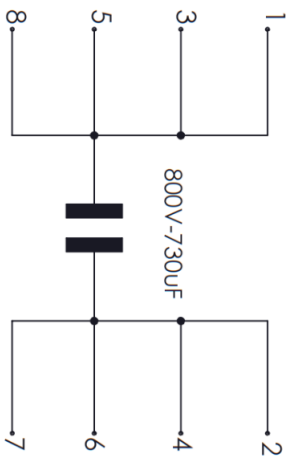
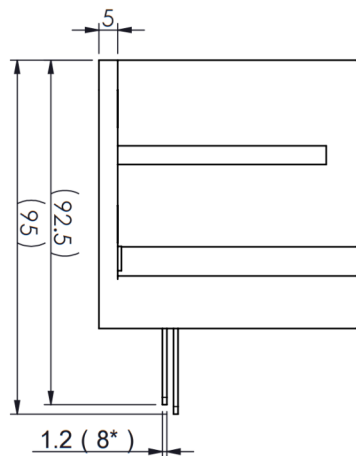
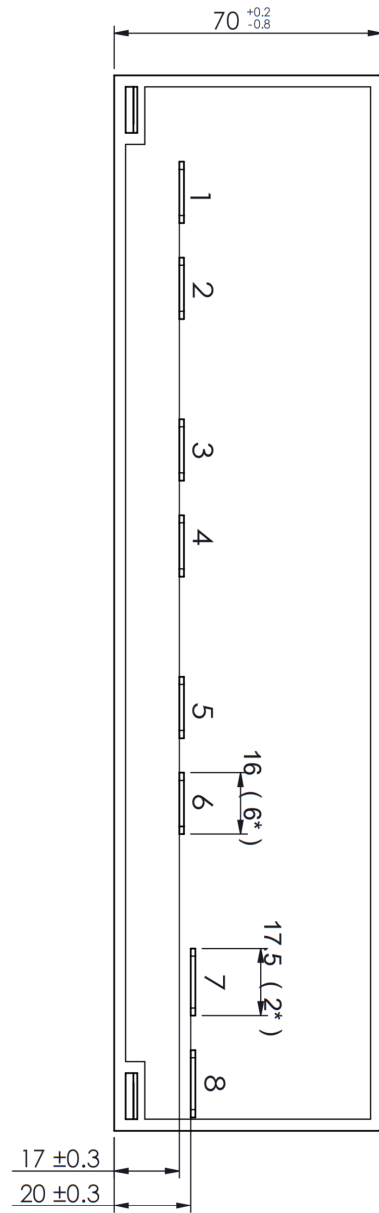
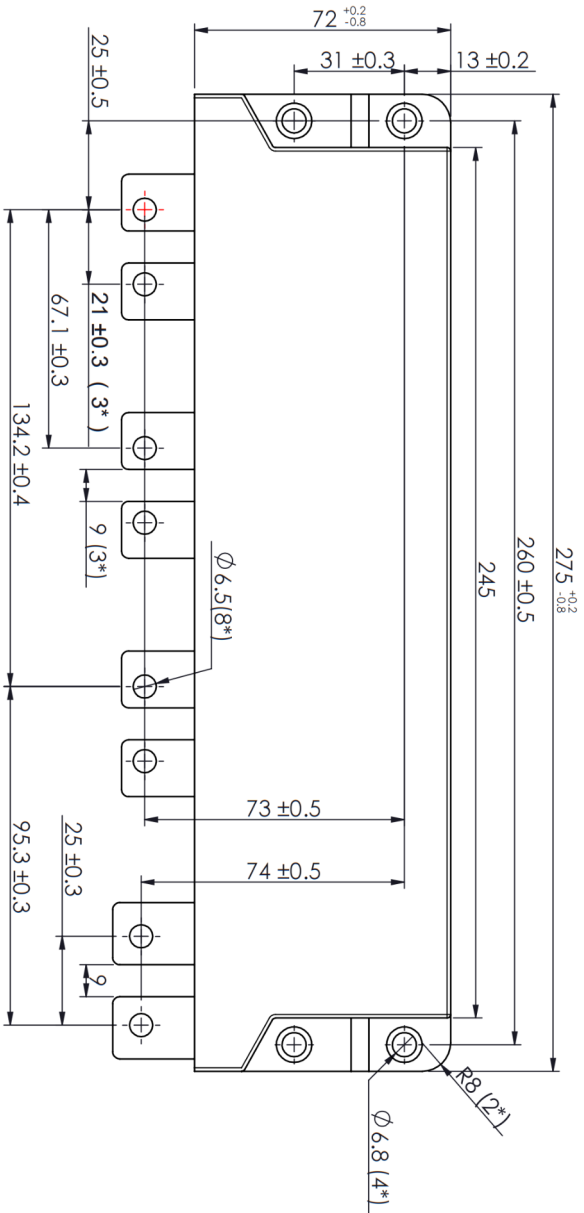
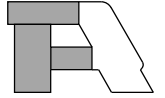
* θ_{case} : 外壳温度。* θ_{case} : Temperature of case.

*ESR: 电容器内部串联电阻总和。

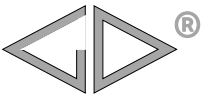
*ESR: The sum of all ohmic resistances occurring inside the capacitor.

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

C36



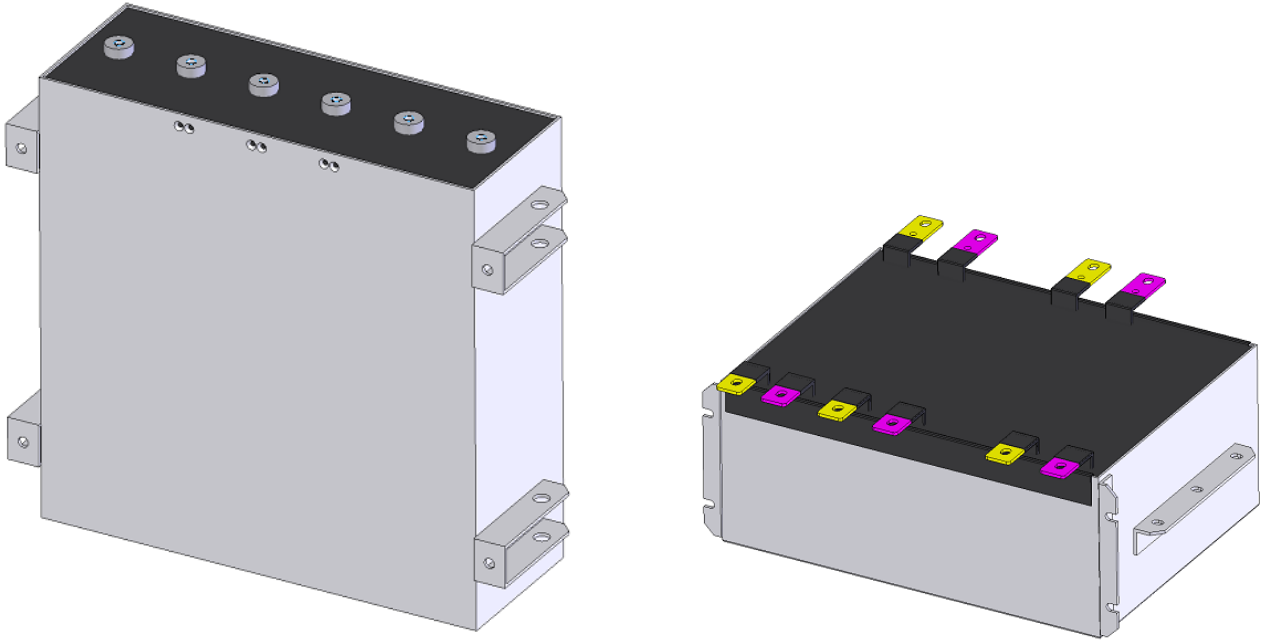
内部连接图



C3N

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
- 树脂灌封

■ 应用场合

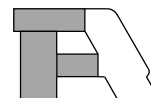
- 风能发电、太阳能发电用变频器上
- 交通工具
- 焊接设备，电梯，电机驱动

■ 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

- Used in inverters of wind power and solar power
- Transportation
- Welders, Elevators, Motor Driver systems

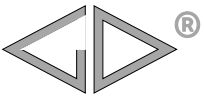


■ 产品代码 Part number

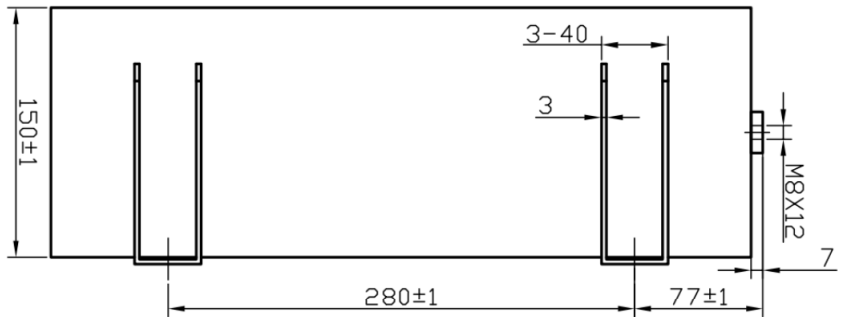
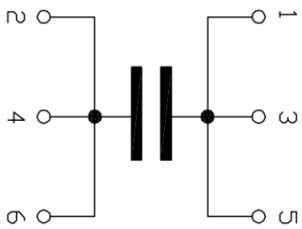
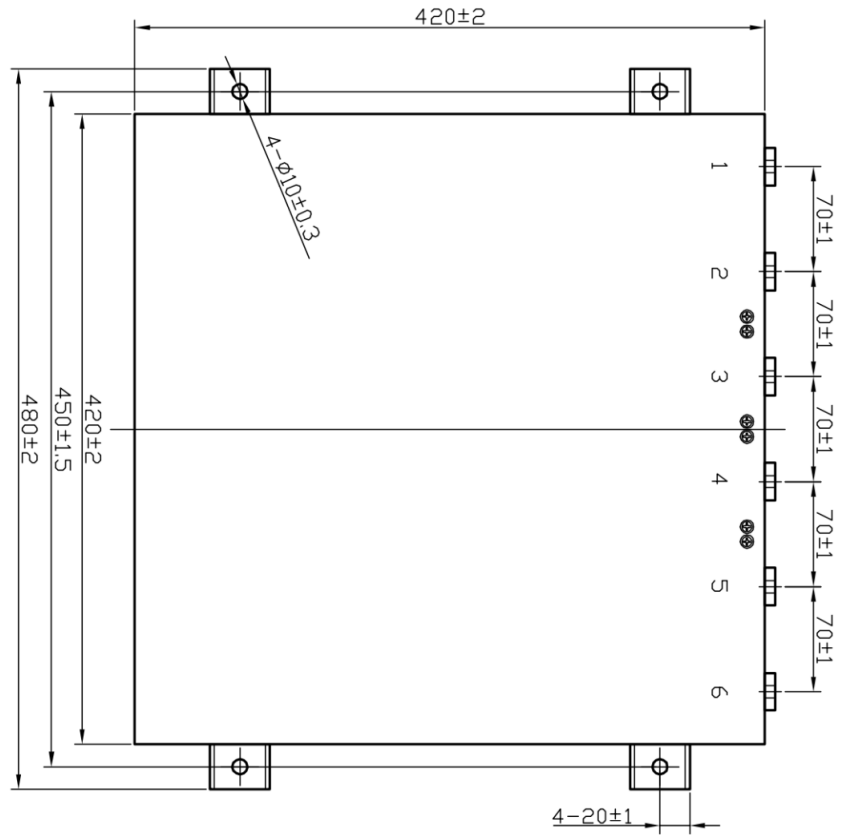
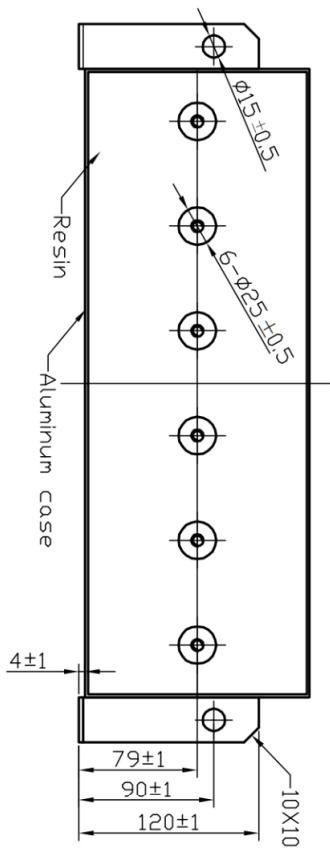
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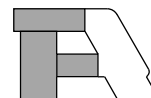
■ 技术参数 Technical Datas

引用标准 Reference standards	GB/T 17702(IEC 61071)
额定电压 Rated voltage (U_N)	680Vdc
额定电容量 Rated capacitance (C_N)	18 000 μ F
电容量偏差 Capacitance tolerance	$\pm 10\%$ (K)
介质损耗角正切 Dielectric dissipation factor ($\tan\delta_d$)	2×10^{-4}
电容器的损耗角正切 Loss factor of the capacitor($\tan\delta$)	$\leq 40 \times 10^{-4}$ @ 100Hz
运行温度范围 (θ_{case}) Operating temperature range (θ_{case})	-40°C~85°C
热点温度 Hot-spot temperature (θ_{hs})	$\leq 85^\circ\text{C}$
贮存温度范围 Storage temperature range	-40°C~85°C
气候类别 Climatic category	40/85/56
外壳类型 Case	Aluminum
电极端子 Terminals	3 couples of thread hole M8 \times 12, tinned brass
最大电极扭矩 Max. torque of terminals	6N·m
电气间隙 Clearance	$\geq 20\text{mm}$
爬电距离 Creepage distance	$\geq 25\text{mm}$
耐电压(两极之间) Test voltage between terminals	1.5 U_N (10s, 20°C \pm 5°C)
耐电压(极壳之间) Test voltage between terminals and case	3 500Vac (10s, 50Hz/60Hz, 20°C \pm 5°C)
绝缘电压 Insulation voltage (U_i)	$U_N/\sqrt{2}$ Vac, 50Hz/60Hz
非周期冲击电压 Non-recurrent surge voltage (U_s)	1 050Vdc
最大电流 Maximum current (I_{max})	480A @ $\theta_{amb}=50^\circ\text{C}$
最大峰值电流 Maximum current (\hat{I})	15 000A
最大冲击电流 Maximum surge current (\hat{I}_s)	60 000A
串联电阻 Series resistance (R_s)	0.3 m Ω @ 1kHz, 20°C (approximate TCR: 0.004/°C)
热阻 Thermal resistance (R_{th})	0.4K/W
自感 Self-inductance (L_s)	$\leq 50\text{nH}$ @ 1MHz
绝缘电阻 Insulation resistance ($IR \times C_N$)	$\geq 10\,000\text{s}$ (20°C, 100Vdc, 1min)
失效率 Failure rate	100 FIT
预期寿命 Expected lifetime	100 000h @ U_N , $\theta_{hs}=70^\circ\text{C}$
最高使用海拔 Max. altitude	2 000m
主体尺寸 Body dimension	L \times W \times H: 420mm \times 150mm \times 420mm
近似重量 Approximate weight	38kg



C3N



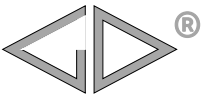


■ 产品代码 Part number

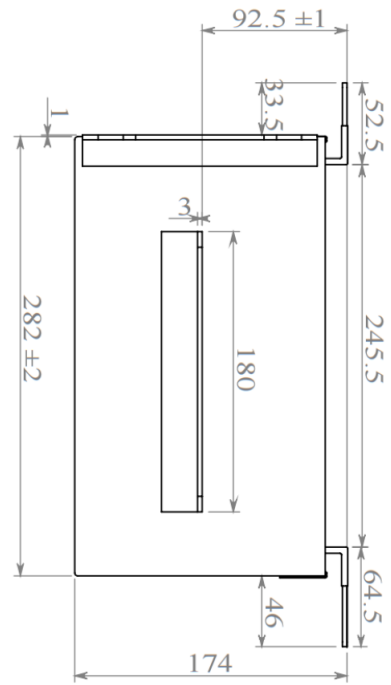
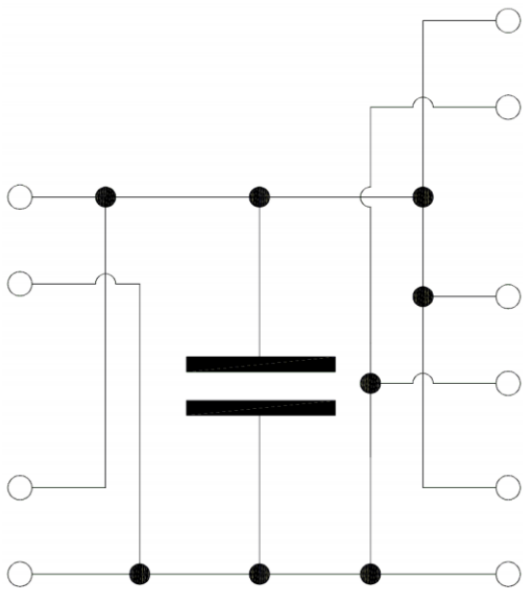
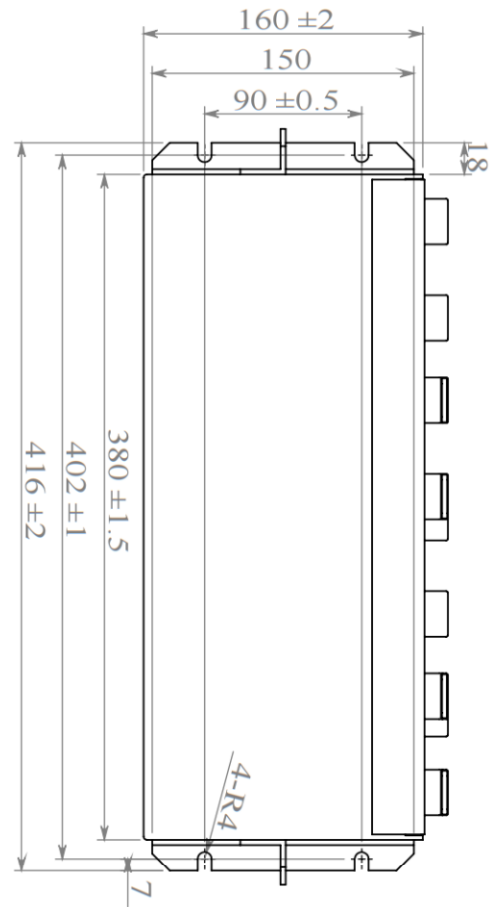
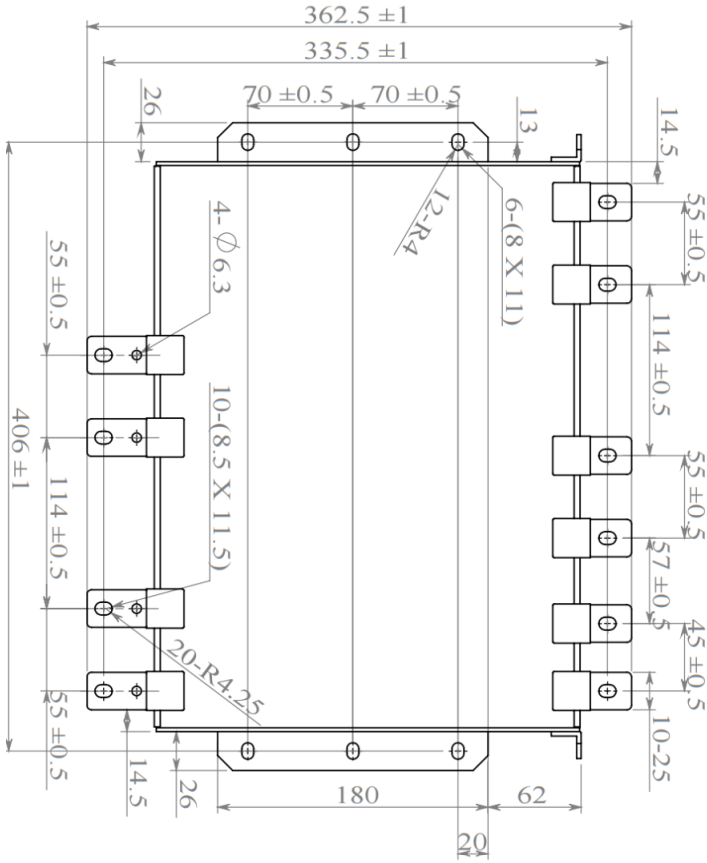
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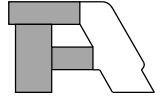
■ 技术参数 Technical Datas

引用标准 Reference standards	GB/T 17702(IEC 61071)
额定电压 Rated voltage (U_N)	1 000Vdc
额定电容量 Rated capacitance (C_N)	6 000 μ F
电容量偏差 Capacitance tolerance	$\pm 5\%$ (J)
介质损耗角正切 Dielectric dissipation factor ($\tan\delta_d$)	2×10^{-4}
电容器的损耗角正切 Loss factor of the capacitor($\tan\delta$)	$\leq 40 \times 10^{-4}$ @100Hz
运行温度范围 (θ_{case}) Operating temperature range (θ_{case})	-40°C~85°C
热点温度 Hot-spot temperature (θ_{hs})	$\leq 85^\circ\text{C}$
贮存温度范围 Storage temperature range	-40°C~85°C
气候类别 Climatic category	40/85/56
外壳类型 Case	Aluminum
电极端子 Terminals	5 couples of lugs, tinned copper
电气间隙 Clearance	$\geq 15\text{mm}$
爬电距离 Creepage distance	$\geq 50\text{mm}$
耐电压(两极之间) Test voltage between terminals	$1.5U_N$ (10s, 20°C \pm 5°C)
耐电压(极壳之间) Test voltage between terminals and case	4 000Vac (10s, 50Hz/60Hz, 20°C \pm 5°C)
绝缘电压 Insulation voltage (U_i)	$U_N / \sqrt{2}$ Vac, 50Hz/60Hz
非周期冲击电压 Non-recurrent surge voltage (U_s)	1 500Vdc
最大电流 Maximum current (I_{max})	350A @ $\theta_{amb}=50^\circ\text{C}$
最大峰值电流 Maximum current (\hat{I})	6 000A
最大冲击电流 Maximum surge current (\hat{I}_s)	24 000A
串联电阻 Series resistance (R_s)	0.3 m Ω @ 1kHz, 20°C (approximate TCR: 0.004/°C)
热阻 Thermal resistance (R_{th})	0.7K/W
自感 Self-inductance (L_s)	$\leq 30\text{nH}$ @ 1MHz
绝缘电阻 Insulation resistance ($IR \times C_N$)	$\geq 10\ 000\text{s}$ (20°C, 100Vdc, 1min)
最高使用海拔 Max. altitude	2 000m
失效率 Failure rate	100 FIT
预期寿命 Expected lifetime	100 000h @ U_N , $\theta_{hs}=70^\circ\text{C}$
主体尺寸 Body dimension	L \times W \times H: 380mm \times 160mm \times 282mm
近似重量 Approximate weight	24kg



C3N

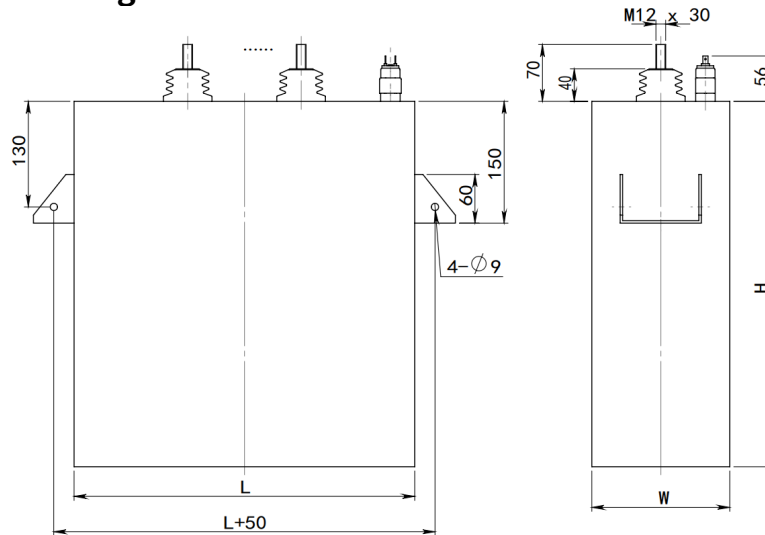




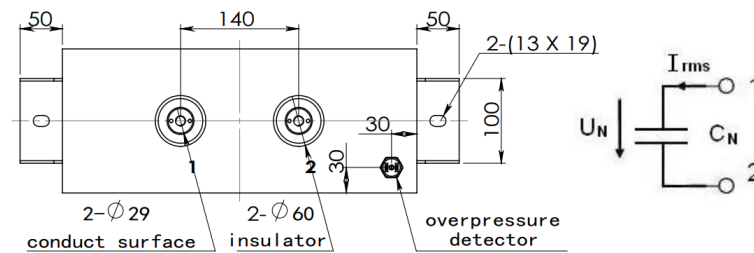
干式高压直流滤波电容器

High Voltage DC-Link Capacitor(Dry-Type)

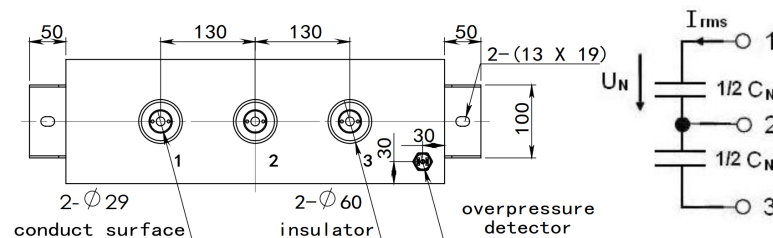
■ 外形图 Outline Drawing



1) When L=340mm or 420mm



2) When L=520mm



■ 特点

- 不锈钢外壳，阻燃树脂灌封
- 干式结构，不会漏液
- 有自愈性，采用安全膜设计
- 等效电阻小，自感小
- 能承受较高的纹波电流

■ 应用

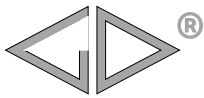
- DC-Link
- 变速传动（驱动、牵引）
- 风能变流器
- 变电站

■ Features

- Stainless steel case, epoxy resin sealing
- Dry construction, no leaking fluids
- Self-healing property, segmented metalized-film design
- Low ESR & Low L_s
- High rms current capability

■ Applications

- DC-Link
- Speed inverter (drives and traction)
- Wind power converter
- Substation



C3E

■ 技术要求 Specifications

引用标准 Reference standards	GB/T 17702(IEC 61071)、GB/T 25121.1(IEC 61881-1)		
额定电压 Rated voltage (U_N)	2 000Vdc ~ 6 000Vdc		
电容量范围 Capacitance range (C_N)	100 μ F ~ 6 000 μ F		
电容量偏差 Capacitance tolerance	$\pm 5\%$ (J), $\pm 10\%$ (K)		
介质损耗角正切 Dielectric dissipation factor ($\tan\delta_d$)	2×10^{-4}		
运行温度范围 (θ_{case}) Operating temperature range (θ_{case})	-40°C ~ 70°C		
热点温度 Hot-spot temperature (θ_{hs})	$\leq 70^\circ\text{C}$		
贮存温度范围 Storage temperature range	-40°C ~ 70°C		
气候类别 Climatic category	40/70/56		
外壳类型 Case	Stainless steel		
耐电压(两极之间) Test voltage between terminals	$1.5U_N$ (10s, 20°C \pm 5°C)		
耐电压(极壳之间) Test voltage between terminals and case	$(\sqrt{2} U_N + 1\ 000)\text{Vac}$ (10s, 50Hz/60Hz, 20°C \pm 5°C)		
绝缘电压 Insulation voltage (U_i)	$U_N / \sqrt{2} \text{Vac}$		
过电压 Over voltage	1.1 U_N (30% of on-load-dur.)		
	1.15 U_N (30min/day)		
	1.2 U_N (5min/day)		
	1.3 U_N (1min/day)		
	1.5 U_N (30ms every time, 1000times during the whole life)		
绝缘电阻 Insulation resistance ($IR \times C_N$)	$\geq 5\ 000\text{s}$ (20°C, 100Vdc, 1min)		
电极端子 Terminals	Thread hole M8 \times 24	Thread hole M10 \times 24	Thread stud M12 \times 30
最大电极扭矩 Max. torque of terminals	6N \cdot m	8N \cdot m	12N \cdot m
保护方式 Protection	Overpressure detector or Pressure valve		
最高使用海拔 Max. altitude	2 000m		
预期寿命 Expected lifetime	100 000h @ U_N , $\theta_{hs} \leq 70^\circ\text{C}$		
失效率 Failure rate	100 FIT		

■ 产品编码说明 Part number system

15 位产品代码如下:

The 15 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	3	E												

第 1~3 位 型号代码

C3E

Digit 1 to 3

Series code

C3E

第 4~5 位 直流额定电压

4M=1 500V 3D=2 000V 2N=2 200V
 1N=2 400V 3N=2 600V 6P=2 800V
 4Q=3 000V 3G=4 000V 3H=5 000V
 6U=6 000V

Digit 4 to 5

D.C. rated voltage

4M=1 500V 3D=2 000V 2N=2 200V
 1N=2 400V 3N=2 600V 6P=2 800V
 4Q=3 000V 3G=4 000V 3H=5 000V
 6U=6 000V

第 6~8 位 标称容量

Digit 6 to 8

Rated capacitance value



举例: $207=20 \times 10^7 \text{pF}=200\mu\text{F}$

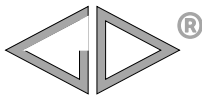
for example: $207=20 \times 10^7 \text{pF}=200\mu\text{F}$

第 9 位 容量偏差
J=±5%, K=±10%
第 10~15 位 内部特征码

Digit 9 Capacitance tolerance
J=±5%, K=±10%
Digit 10 to 15 Internal use

■ 技术参数 Technical data

U _N (Vdc)	C _N (μF)	R _s (mΩ) @20°C 1kHz	L _s (nH)	R _{th} (K/W)	Î (A)	I _{max} (A)			Dimension (mm)			Weight (kg)	Part number
						40°C	50°C	60°C	L±3	W±3	H±3		
2 000	1 550	0.41	<100	0.68	9 800	220	220	169	340	140	285	22.6	C3E3D158-*****
	2 070	0.37	<100	0.55	13 100	220	220	198	340	140	365	28.1	C3E3D208-*****
	2 590	0.35	<100	0.46	16 400	220	220	220	340	140	445	33.6	C3E3D258-*****
	3 100	0.33	<100	0.40	19 700	220	220	220	340	140	525	39.2	C3E3D318-*****
	3 620	0.32	<100	0.34	22 900	220	220	220	340	140	610	45.1	C3E3D368-*****
	4 140	0.31	<100	0.31	26 200	220	220	220	340	140	690	50.6	C3E3D418-*****
	4 660	0.30	<100	0.27	29 500	220	220	220	340	140	770	56.2	C3E3D468-*****
	1 940	0.38	<100	0.56	12 300	220	220	195	420	140	285	27.4	C3E3D198-*****
	2 590	0.34	<100	0.46	16 400	220	220	220	420	140	365	34.1	C3E3D258-*****
	3 230	0.32	<100	0.38	20 500	220	220	220	420	140	445	40.9	C3E3D328-*****
	3 880	0.31	<100	0.33	24 600	220	220	220	420	140	525	47.7	C3E3D388-*****
	4 530	0.30	<100	0.29	28 700	220	220	220	420	140	610	55.0	C3E3D458-*****
	5 180	0.29	<100	0.26	32 800	220	220	220	420	140	690	61.7	C3E3D518-*****
	5 820	0.29	<100	0.23	36 900	220	220	220	420	140	770	68.5	C3E3D588-*****
	2×1 640	0.44	<100	0.37	10 400	220	220	159	520	140	375	43.3	C3E3D328-*****
2×2 050	0.41	<100	0.31	13 000	220	220	180	520	140	455	51.6	C3E3D418-*****	
2×2 460	0.39	<100	0.27	15 600	220	220	200	520	140	540	60.5	C3E3D498-*****	
2×2 870	0.37	<100	0.23	18 200	220	220	219	520	140	620	68.7	C3E3D578-*****	
2 200	1 250	0.43	<100	0.69	8 800	220	220	168	340	140	285	22.5	C3E2N128-*****
	1 670	0.38	<100	0.56	11 700	220	220	198	340	140	365	28.1	C3E2N168-*****
	2 080	0.36	<100	0.47	14 700	220	220	220	340	140	445	33.6	C3E2N208-*****
	2 500	0.34	<100	0.40	17 600	220	220	220	340	140	525	39.1	C3E2N258-*****
	2 920	0.32	<100	0.35	20 600	220	220	220	340	140	610	45.1	C3E2N298-*****
	3 340	0.31	<100	0.31	23 500	220	220	220	340	140	690	50.6	C3E2N338-*****
	3 760	0.31	<100	0.28	26 500	220	220	220	340	140	770	56.1	C3E2N378-*****
	1 560	0.39	<100	0.57	11 000	220	220	194	420	140	285	27.3	C3E2N158-*****
	2 080	0.35	<100	0.46	14 700	220	220	220	420	140	365	34.1	C3E2N208-*****
	2 610	0.33	<100	0.39	18 400	220	220	220	420	140	445	40.9	C3E2N268-*****
	3 130	0.32	<100	0.33	22 100	220	220	220	420	140	525	47.7	C3E2N318-*****
	3 650	0.31	<100	0.29	25 800	220	220	220	420	140	610	54.9	C3E2N368-*****
	4 170	0.30	<100	0.26	29 400	220	220	220	420	140	690	61.7	C3E2N418-*****
	4 700	0.29	<100	0.23	33 100	220	220	220	420	140	770	68.5	C3E2N478-*****
	2×1 320	0.46	<100	0.37	9 300	220	220	156	520	140	375	43.3	C3E2N268-*****
2×1 650	0.42	<100	0.31	11 600	220	220	177	520	140	455	51.6	C3E2N338-*****	
2×1 980	0.40	<100	0.27	14 000	220	220	198	520	140	540	60.5	C3E2N398-*****	
2×2 320	0.38	<100	0.23	16 300	220	220	216	520	140	620	68.7	C3E2N468-*****	
2 400	1 030	0.45	<100	0.69	8 000	220	220	164	340	140	285	22.5	C3E1N108-*****
	1 370	0.40	<100	0.56	10 700	220	220	194	340	140	365	28.1	C3E1N138-*****
	1 720	0.37	<100	0.47	13 300	220	220	220	340	140	445	33.6	C3E1N178-*****
	2 060	0.35	<100	0.41	16 000	220	220	220	340	140	525	39.1	C3E1N208-*****
	2 410	0.33	<100	0.35	18 700	220	220	220	340	140	610	45.1	C3E1N248-*****
	2 750	0.32	<100	0.31	21 400	220	220	220	340	140	690	50.6	C3E1N278-*****
	3 100	0.31	<100	0.28	24 100	220	220	220	340	140	770	56.1	C3E1N318-*****
	1 290	0.40	<100	0.58	10 000	220	220	190	420	140	285	27.3	C3E1N128-*****
	1 720	0.36	<100	0.47	13 300	220	220	220	420	140	365	34.1	C3E1N178-*****
	2 150	0.34	<100	0.39	16 700	220	220	220	420	140	445	40.9	C3E1N218-*****
	2 580	0.32	<100	0.34	20 000	220	220	220	420	140	525	47.6	C3E1N258-*****
	3 010	0.31	<100	0.29	23 400	220	220	220	420	140	610	54.9	C3E1N308-*****
	3 440	0.30	<100	0.26	26 700	220	220	220	420	140	690	61.7	C3E1N348-*****
	3 870	0.30	<100	0.24	30 100	220	220	220	420	140	770	68.4	C3E1N388-*****
	2×1 090	0.47	<100	0.38	85 00	220	216	153	520	140	375	43.2	C3E1N218-*****
2×1 360	0.43	<100	0.32	10 600	220	220	174	520	140	455	51.5	C3E1N278-*****	
2×1 630	0.41	<100	0.27	12 700	220	220	194	520	140	540	60.4	C3E1N328-*****	
2×1 910	0.39	<100	0.24	14 800	220	220	213	520	140	620	68.7	C3E1N388-*****	
2 600	1 100	0.48	<100	0.69	7 300	220	220	158	340	170	285	26.3	C3E3N118-*****
	1 470	0.43	<100	0.56	9 800	220	220	186	340	170	365	32.7	C3E3N148-*****
	1 830	0.39	<100	0.48	12 200	220	220	212	340	170	445	39.2	C3E3N188-*****
	2 200	0.37	<100	0.41	14 700	220	220	220	340	170	525	45.6	C3E3N228-*****



C3E

■ 技术参数 Technical data

U _N (Vdc)	C _N (μF)	R _e (mΩ) @20°C 1kHz	L _s (nH)	R _{th} (K/W)	î (A)	I _{max} (A)			Dimension (mm)			Weight (kg)	Part number
						40°C	50°C	60°C	L±3	W±3	H±3		
2600	2570	0.35	<100	0.36	17 100	220	220	220	340	170	610	52.5	C3E3N258-*****
	2940	0.34	<100	0.32	19 600	220	220	220	340	170	690	59.0	C3E3N298-*****
	3310	0.33	<100	0.29	22 000	220	220	220	340	170	770	65.4	C3E3N338-*****
	1380	0.43	<100	0.57	9 100	220	220	183	420	170	285	31.9	C3E3N138-*****
	1830	0.39	<100	0.47	12 200	220	220	214	420	170	365	39.8	C3E3N188-*****
	2290	0.36	<100	0.40	15 300	220	220	220	420	170	445	47.7	C3E3N228-*****
	2750	0.34	<100	0.34	18 300	220	220	220	420	170	525	55.5	C3E3N278-*****
	3210	0.33	<100	0.30	21 400	220	220	220	420	170	610	64.0	C3E3N328-*****
	3670	0.31	<100	0.27	24 500	220	220	220	420	170	690	71.9	C3E3N368-*****
	4130	0.31	<100	0.24	27 500	220	220	220	420	170	770	79.8	C3E3N418-*****
	2×1160	0.51	<100	0.38	7 700	220	207	146	520	170	375	50.4	C3E3N238-*****
	2×1450	0.46	<100	0.33	9 700	220	220	166	520	170	455	60.0	C3E3N298-*****
	2×1750	0.43	<100	0.28	11 600	220	220	186	520	170	540	70.4	C3E3N358-*****
	2×2040	0.41	<100	0.25	13 600	220	220	204	520	170	620	80.1	C3E3N408-*****
2800	930	0.50	<100	0.69	6 700	220	219	155	340	170	285	26.3	C3E6P937-*****
	1250	0.44	<100	0.57	9 000	220	220	183	340	170	365	32.7	C3E6P128-*****
	1560	0.40	<100	0.48	11 300	220	220	208	340	170	445	39.1	C3E6P158-*****
	1870	0.37	<100	0.41	13 500	220	220	220	340	170	525	45.6	C3E6P188-*****
	2190	0.36	<100	0.36	15 800	220	220	220	340	170	610	52.5	C3E6P218-*****
	2500	0.34	<100	0.32	18 000	220	220	220	340	170	690	59.0	C3E6P258-*****
	2810	0.33	<100	0.29	20 300	220	220	220	340	170	770	65.4	C3E6P288-*****
	1170	0.45	<100	0.58	8 400	220	220	179	420	170	285	31.9	C3E6P118-*****
	1560	0.40	<100	0.48	11 300	220	220	210	420	170	365	39.8	C3E6P158-*****
	1950	0.37	<100	0.40	14 100	220	220	220	420	170	445	47.6	C3E6P198-*****
	2340	0.35	<100	0.35	16 900	220	220	220	420	170	525	55.5	C3E6P238-*****
	2730	0.33	<100	0.30	19 700	220	220	220	420	170	610	64.0	C3E6P278-*****
	3130	0.32	<100	0.27	22 600	220	220	220	420	170	690	71.9	C3E6P318-*****
	3520	0.31	<100	0.24	25 400	220	220	220	420	170	770	79.8	C3E6P358-*****
	2×990	0.52	<100	0.39	7 100	220	202	143	520	170	375	50.4	C3E6P198-*****
	2×1240	0.48	<100	0.33	8 900	220	220	163	520	170	455	60.0	C3E6P248-*****
2×1480	0.44	<100	0.28	10 700	220	220	182	520	170	540	70.4	C3E6P298-*****	
2×1730	0.42	<100	0.25	12 500	220	220	200	520	170	620	80.1	C3E6P348-*****	
3000	800	0.52	<100	0.70	6 200	220	214	151	340	170	285	26.3	C3E4Q807-*****
	1070	0.45	<100	0.58	8 300	220	220	179	340	170	365	32.7	C3E4Q108-*****
	1340	0.41	<100	0.49	10 400	220	220	204	340	170	445	39.1	C3E4Q138-*****
	1610	0.38	<100	0.42	12 500	220	220	220	340	170	525	45.6	C3E4Q168-*****
	1880	0.36	<100	0.37	14 600	220	220	220	340	170	610	52.5	C3E4Q188-*****
	2150	0.35	<100	0.33	16 700	220	220	220	340	170	690	58.9	C3E4Q218-*****
	2420	0.34	<100	0.29	18 800	220	220	220	340	170	770	65.4	C3E4Q248-*****
	1010	0.46	<100	0.59	7 800	220	220	175	420	170	285	31.9	C3E4Q108-*****
	1340	0.41	<100	0.48	10 400	220	220	206	420	170	365	39.7	C3E4Q138-*****
	1680	0.37	<100	0.41	13 100	220	220	220	420	170	445	47.6	C3E4Q168-*****
	2020	0.35	<100	0.35	15 700	220	220	220	420	170	525	55.5	C3E4Q208-*****
	2350	0.34	<100	0.31	18 300	220	220	220	420	170	610	64.0	C3E4Q238-*****
	2690	0.33	<100	0.27	20 900	220	220	220	420	170	690	71.9	C3E4Q268-*****
	3030	0.32	<100	0.25	23 600	220	220	220	420	170	770	79.7	C3E4Q308-*****
	2×850	0.54	<100	0.39	6 600	220	198	140	520	170	375	50.4	C3E4Q178-*****
	2×1060	0.49	<100	0.33	8 300	220	220	160	520	170	455	60.0	C3E4Q218-*****
	2×1280	0.46	<100	0.29	9 900	220	220	179	520	170	540	70.4	C3E4Q258-*****
	2×1490	0.43	<100	0.25	11 600	220	220	196	520	170	620	80.1	C3E4Q298-*****

备注 Note: 1. “+” 表示容量偏差。 “+” =capacitance tolerance code, J=±5%, K=±10%.

2. “*****” 表示内部特征码。 “*****” = Internal use.

3. 其它容量、电压、尺寸系列可按用户需求定制。 Other capacitances, voltages, and dimensions are available on request.

4. R_e 是电容器导体部分的等效内阻，其近似电阻温度系数为 0.004/°C。

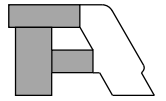
R_e is the effective ohmic resistance of the conductors of a capacitor and the approximate TCR is 0.004/°C.

5. 上表中列出的 R_{th} 值是在自然冷却条件下的数值。 The R_{th} values listed in above table depend on natural cooling.

6. 上表中列出的 I_{max} 值是在环境温度 θ_{amb} 分别为 40°C, 50°C, 60°C 时的最大电流有效值。该值通过公式

$\theta_{hs} = \theta_{amb} + I_{rms}^2 \times (R_s + \tan\delta / (2 \times \pi \times f_{ripple} \times C_N)) \times R_{th}$ 计算 I_{rms} 得到，但不允许超出电极端子的持续载流强度。如需要更大电流，可以通过增大电极端子的直径或者增加电极端子数来实现。

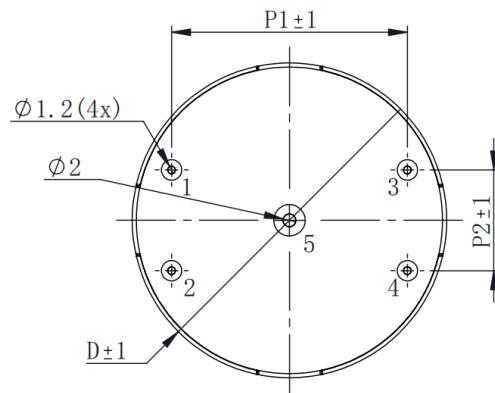
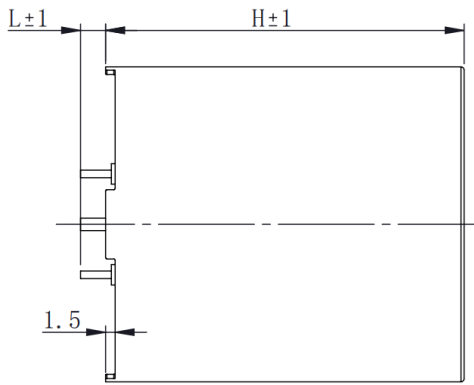
The I_{max} values listed in above table are the maximum allowable r.m.s current at θ_{amb} (40°C, 50°C or 60°C). We can get these values by the formula $\theta_{hs} = \theta_{amb} + I_{rms}^2 \times (R_s + \tan\delta / (2 \times \pi \times f_{ripple} \times C_N)) \times R_{th}$, but they can't exceed the maximum allowed continuous current through the terminals. We can get higher current on request by increasing the diameter of terminals or adding the quantity of terminals.



PCB 用 DC-Link 电容器

DC-Link Capacitor for PCB

■ 外形图 Outline Drawing



Connection Diagram

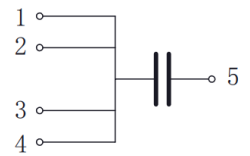
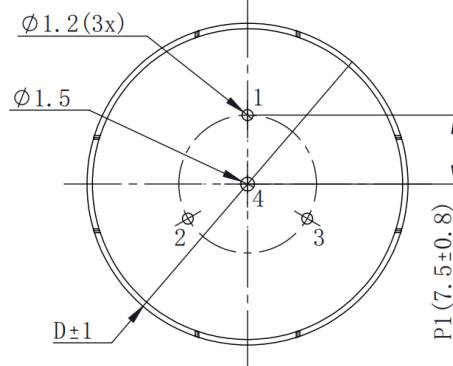
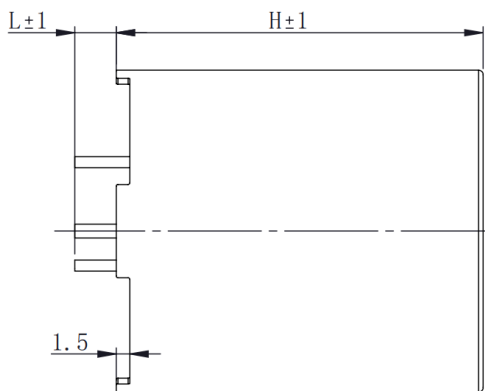


图 1 (Type 1)



Connection Diagram

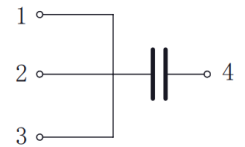
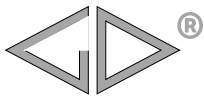


图 2 (Type 2)



C3L

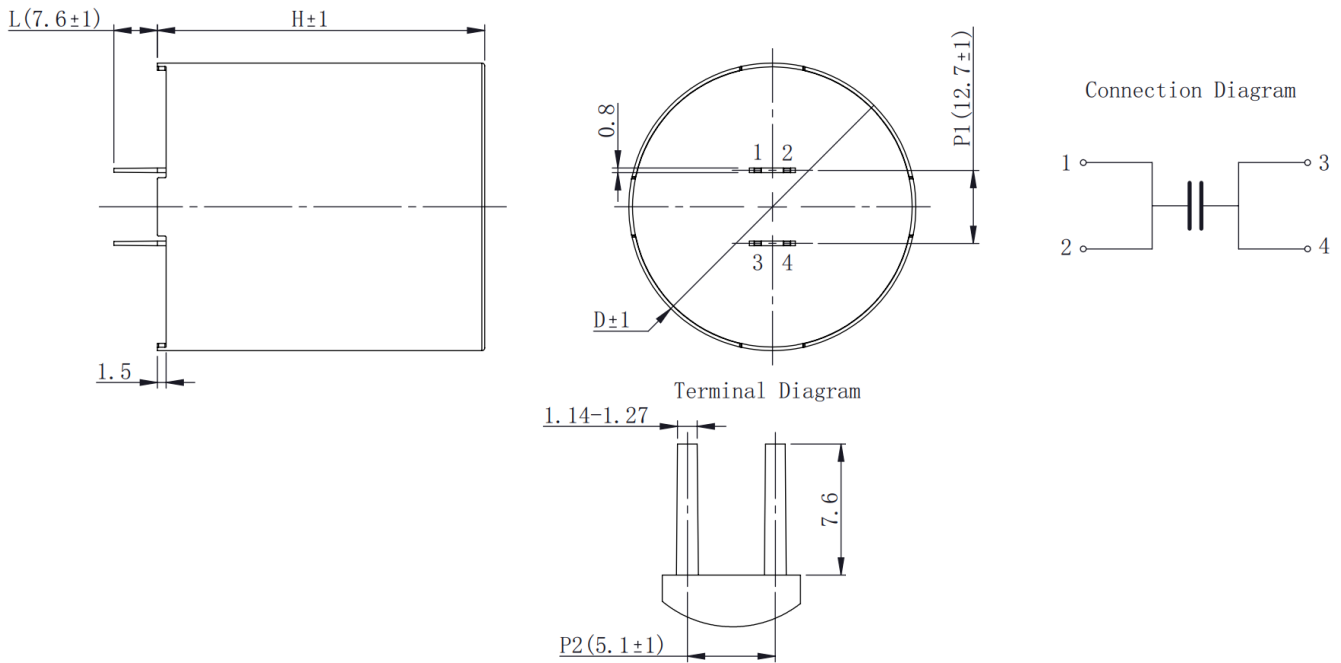


图 3 (Type 3)

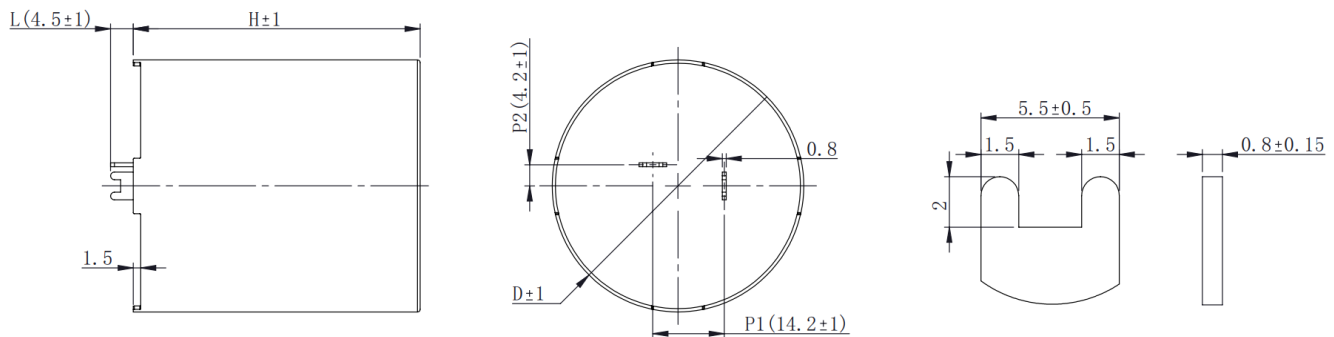


图 4 (Type 4)

■ 特点

- 塑料外壳，干式封装
- 等效串联电阻小，能承受较大的纹波电流
- 自感小
- 寿命长

■ 应用场合

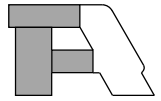
- 用于 DC-Link 电路替代电解电容
- 用于中小功率太阳能逆变器
- 用于焊接设备，中央空调，商用空调变频器，电梯设备，工业电机驱动器

■ Features

- Plastic case, Dry construction
- Low ESR, high ripple current ability
- Low L_s
- Long life

■ Applications

- Used to replace electrolytic capacitor in DC-Link circuits
- Used in small and medium power solar inverter
- Used in welding instruments, central air-conditioning inverter, commercial air conditioning inverter, elevator driver, industrial motor drive



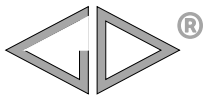
■ 技术要求 Specifications

引用标准 Reference Standard	GB/T 17702(IEC 61071)
气候类别 Climatic Category	40/85/56
工作温度范围 Operating Temperature Range	-40°C ~ 85°C ($\theta_{hs} \leq 85^\circ\text{C}$)
贮存温度范围 Storage temperature range	-40°C ~ 85°C
电压范围 Voltage Range	500Vdc ~ 1 500Vdc
电容量范围 Capacitance Range	5.8 μF ~ 290 μF
电容量偏差 Capacitance Tolerance	$\pm 5\%$ (J); $\pm 10\%$ (K)
耐电压(两极之间) Test Voltage Between Terminals	1.5 U_N (10s, 20°C \pm 5°C)
耐电压(极壳之间) Test Voltage Between Terminals And Case	$U_N < 1\ 500\text{Vdc}, 3\ 000\text{Vac}(10\text{s}, 50\text{Hz}, 20^\circ\text{C}\pm 5^\circ\text{C})$ $U_N \geq 1\ 500\text{Vdc}, (\sqrt{2} U_N + 1\ 000)\text{Vac}(10\text{s}, 50\text{Hz}, 20^\circ\text{C}\pm 5^\circ\text{C})$
介质损耗角正切 $\tan\delta_d$	2×10^{-4}
$IR \times C_N$	$\geq 5\ 000\text{s}$ (20°C, 500Vdc, 1min)
过电压 Over Voltage	1.1 U_N (30% of on-load-dur.)
	1.15 U_N (30min/day)
	1.2 U_N (5min/day)
	1.3 U_N (1min/day)
	1.5 U_N (30ms every time, 1 000times during the life of the capacitor)
预期寿命 Expected lifetime	100 000h @ U_N , $\theta_{hs}=70^\circ\text{C}$
失效率 Failure rate	100 FIT
最高使用海拔 Max. altitude	2 000m: 电流不降额(No derating for current) 2 000m to 5 000m: 电流每 500m 按 3%降额 (Decreasing factor 3% per 500m for current)
安装 Installation	任意方向 Any Position

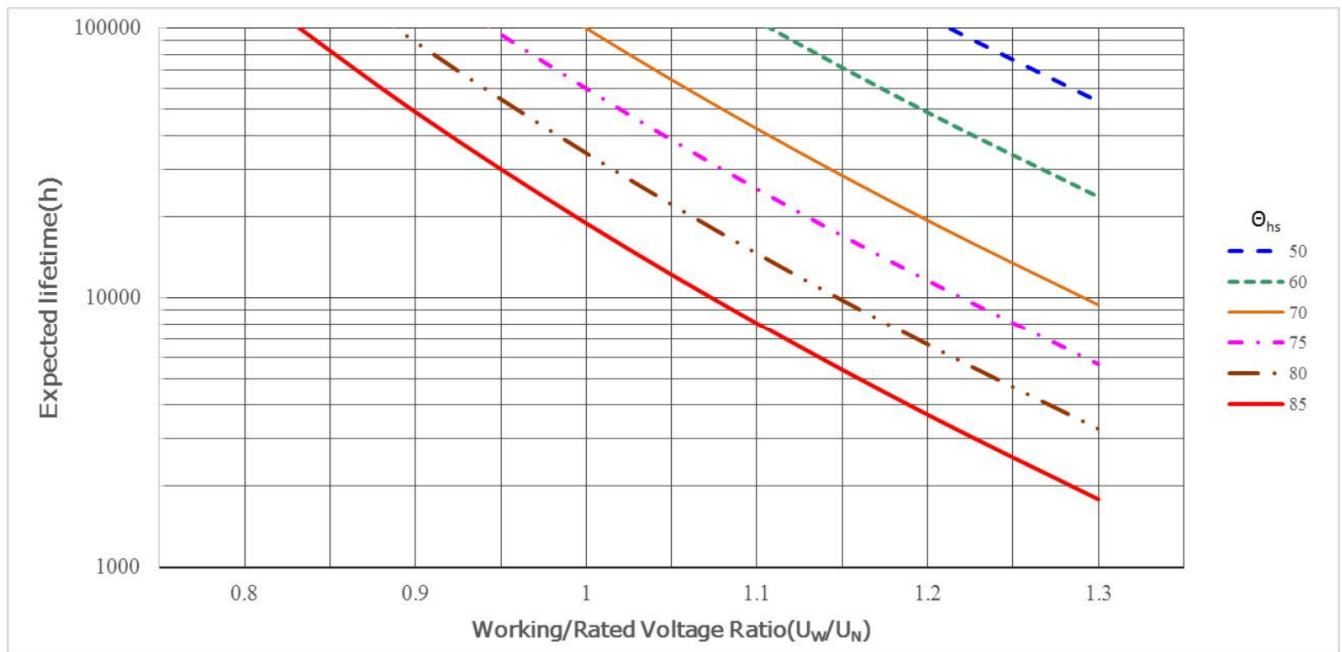
■ 预期寿命曲线 Expected lifetime curve

电容器的应用中，有多种因素会影响到电容器的使用寿命，比如电压、温度、电流、电网谐波、光照或辐射以及其它一些未知的因素。以下预期寿命曲线仅考虑电压、温度的关系，基于长期耐久性试验的合格结果，再通过预期寿命理论计算公式计算该电容在不同工况下的预期寿命。因此，预期寿命曲线仅作为选型参考，而不代表电容器的实际使用寿命，也不代表质保要求。

For capacitors application, various factors will affect the expected lifetime of capacitors, such as voltage, temperature, current, network harmonics, humidity, lighting or radiation and other unknown factors. The following lifetime curve only considers the effects of voltage and temperature. Based on the qualified results of long-term durability test, the lifetime curve of the capacitor under different working conditions is calculated by using the theoretical calculation formula of lifetime. Therefore, the lifetime curve is only used as a reference for selection, and does not represent the actual service life of the capacitor, nor does it represent the quality assurance requirements.



C3L



产品编码说明 Part number system

15 位产品代码如下:

The 15 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	3	L												

第 1~3 位 型号代码

C3L

Digit 1 to 3

Series code

C3L

第 4~5 位 直流额定电压

2H=500V 1U=600V 1V=700V
 1X=900V 3A=1 000V 1M=1 100V
 3L=1 200V 2M=1 300V 4M=1 500V

Digit 4 to 5

D.C. rated voltage

2H=500V 1U=600V 1V=700V
 1X=900V 3A=1 000V 1M=1 100V
 3L=1 200V 2M=1 300V 4M=1 500V

第 6~8 位 标称容量

举例: 107=10×10⁷pF=100μF

Digit 6 to 8

Rated capacitance value

for example: 107=10×10⁷pF=100μF

第 9 位 容量偏差

J=±5%, K=±10%

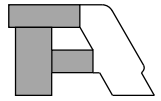
Digit 9

Capacitance tolerance

J=±5%, K=±10%

第 10~15 位 内部特征码

Digit 10 to 15 Internal use



■ 技术参数 Technical data

U _N (Vdc)	C _N (μF)	R _s 1kHz (mΩ)	L _s (nH)	R _{th} (K/W)	Ĵ (A)	I _{max} (A)			Dimension (mm)		Weight (kg)	Part number
						40°C	50°C	60°C	ΦD ±1.0	H ±1.0		
500	36	5.4	30	18.6	230	16	16	16	35	52	0.07	C3L2H366-*****
	110	2.5	25	11	610	16	16	16	50	57	0.15	C3L2H117-*****
	125	2.6	35	10.2	610	16	16	16	50	63	0.17	C3L2H039-*****
	290	3.8	55	6.2	610	16	16	16	50	120	0.30	C3L2H297-*****
600	30	5.9	30	18.6	230	16	16	16	35	52	0.07	C3L1U306-*****
	95	2.6	25	11	630	16	16	16	50	57	0.15	C3L1U956-*****
	110	2.7	35	10.2	630	16	16	16	50	63	0.17	C3L1U117-*****
	250	4.0	55	6.2	630	16	16	16	50	120	0.30	C3L1U257-*****
700	23	6.5	30	18.6	230	16	16	16	35	52	0.07	C3L1V236-*****
	70	2.9	25	11	580	16	16	16	50	57	0.15	C3L1V706-*****
	80	3.1	35	10.2	580	16	16	16	50	63	0.17	C3L1V806-*****
	180	4.4	55	6.2	580	16	16	16	50	120	0.30	C3L1V187-*****
900	19	5.9	30	18.6	230	16	16	16	35	52	0.07	C3L1X196-*****
	56	3.2	25	11	580	16	16	16	50	57	0.15	C3L1X566-*****
	65	3.3	35	10.2	580	16	16	16	50	63	0.17	C3L1X656-*****
	150	4.7	55	6.2	580	16	16	16	50	120	0.30	C3L1X157-*****
1 000	15	7.8	30	18.7	220	16	16	16	35	52	0.07	C3L3A156-*****
	45	3.4	25	11	550	16	16	16	50	57	0.15	C3L3A456-*****
	50	3.7	35	10.3	550	16	16	16	50	63	0.17	C3L3A506-*****
	120	5.0	55	6.2	550	16	16	16	50	120	0.30	C3L3A127-*****
1 100	12	8.7	30	18.7	210	16	15	12	35	52	0.07	C3L1M126-*****
	36	3.8	25	11	540	16	16	16	50	57	0.15	C3L1M366-*****
	41	4.0	35	10.3	540	16	16	16	50	63	0.17	C3L1M416-*****
	95	5.6	55	6.2	540	16	16	16	50	120	0.30	C3L1M956-*****
1 200	10	9.5	30	18.7	210	16	14	12	35	52	0.07	C3L3L106-*****
	30	4.1	25	11	530	16	16	16	50	57	0.15	C3L3L306-*****
	34	4.3	35	10.3	530	16	16	16	50	63	0.17	C3L3L346-*****
	78	6.0	55	6.2	530	16	16	16	50	120	0.30	C3L3L786-*****
1 300	8	10.7	30	18.7	200	15	13	11	35	52	0.07	C3L2M805-*****
	24	4.6	25	11.1	520	16	16	16	50	57	0.15	C3L2M246-*****
	28	4.7	35	10.3	520	16	16	16	50	63	0.17	C3L2M286-*****
	65	6.5	55	6.2	520	16	16	16	50	120	0.30	C3L2M656-*****
1 500	5.8	12.9	30	18.7	180	14	12	10	35	52	0.07	C3L4M585-*****
	18	5.3	25	11.1	460	16	16	16	50	57	0.15	C3L4M186-*****
	20	5.6	35	10.3	460	16	16	16	50	63	0.17	C3L4M206-*****
	48	7.4	55	6.3	460	16	16	16	50	120	0.30	C3L4M486-*****

备注 Note: 1. “+”表示容量偏差。 “+” =capacitance tolerance code, J=±5%, K=±10%.

2. “*****”表示内部特征码。 “*****” = Internal use

3. “I_{max}”是指环境温度(40°C, 50°C, 60°C)下的最大允许电流有效值。在此条件下, 热点温度将达到最大值。

“I_{max}” = Maximum allowable r.m.s current at θ_{amb}(40°C, 50°C, 60°C). θ_{hs} will reach the maximum value on this condition.

4. “R_{th}”是指在自然冷却条件下, 电容器热点到环境的热阻。

“R_{th}” = R_{th} between hotspot and ambient on natural cooling condition.

5. “θ_{hs}”是指电容器内部最热点处的温度, 其值为: θ_{hs} = θ_{amb} + I_{rms}² × ESR × R_{th}.

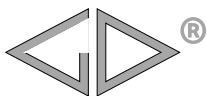
“θ_{hs}” = The hottest spot inside the capacitor, θ_{hs} = θ_{amb} + I_{rms}² × ESR × R_{th}.

6. ESR和I_{max}值四种类型产品之间会有差异, 技术参数表提供的数值仅供参考。

The ESR and I_{max} values of the four product types are different. The values provided by the technical data list are for reference only.

7. 上表中所述的尺寸为本产品系列中的常用壳号尺寸, 其它规格尺寸可按客户要求定制。

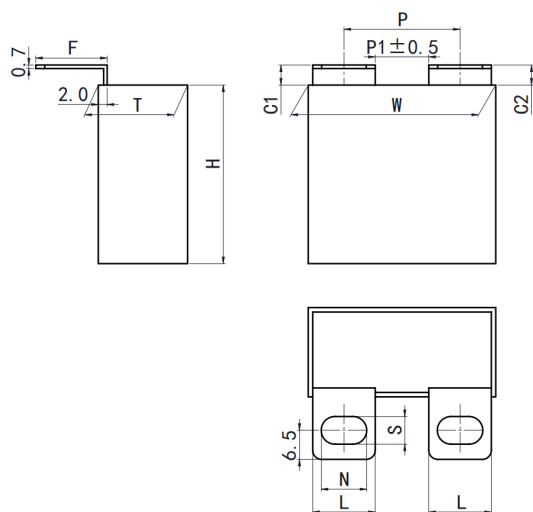
Sizes above are normally used dimension, other dimension can be customized in pursuance of customer's request.



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IGBT 吸收电容器 (接线片) Snubber capacitor for IGBT(Lug terminals)

外形图 Outline Drawing



$L \times F \times N \times S = 14.0 \times 16.0 \times 10.2 \times 6.2$

图 1 (Style 1)

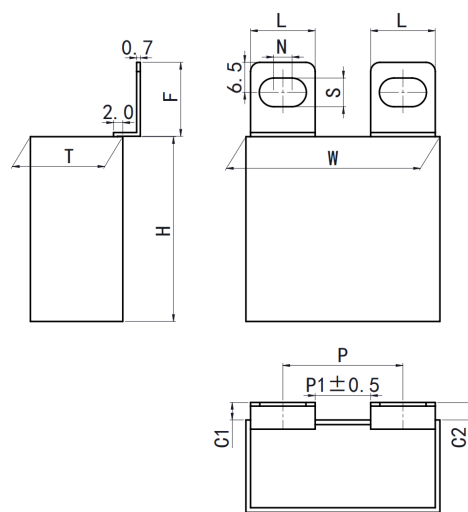
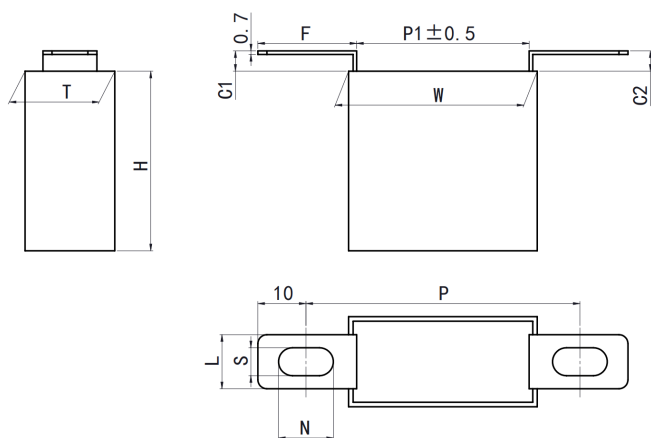
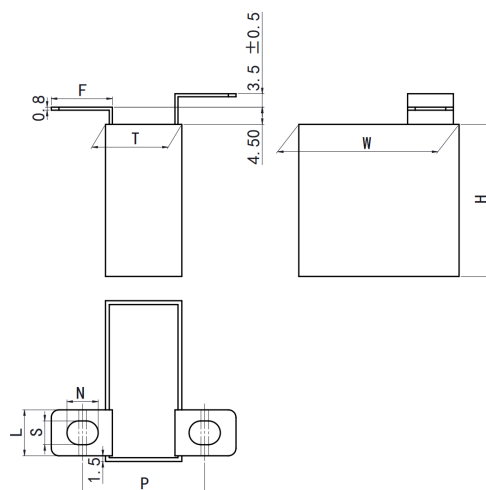


图 2 (Style 2)



$L \times F \times N \times S = 14.0 \times 22.0 \times 11.2 \times 6.2$
or
 $L \times F \times N \times S = 12.0 \times 22.0 \times 11.2 \times 6.2$

图 3 (Style 3)



$L \times F \times N \times S = 16.0 \times 12.0 \times 8.2 \times 6.2$

图 4 (Style 4)

特点

- 广泛应用于高压高频脉冲电路中
- 损耗小, 内部温升小
- 优异的阻燃性能
- 适合作为 IGBT 的吸收电容

Features

- Widely used in high voltage, high frequency circuit
- Low loss and small inherent temperature rise
- Excellent active and passive flame resistant abilities
- Especially designed as snubber capacitor for IGBT

安全认证 Safety Approvals

●		UL (美国)	UL 810 (construction only), Max. 5 000Vdc, 90°C 证书号 (File No.): E256238, CCN: CZDS2
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■ 技术要求 Specifications

引用标准 Reference Standard	GB/T 17702 (IEC 61071)	
气候类别 Climatic Category	40/85/56	
工作温度范围(外壳最高温度点) Operating temperature range (Max. temperature of case surface)	-40°C~85°C	
额定电压 Rated Voltage	630Vdc ~ 3 000Vdc	
电容范围 Capacitance Range	0.047μF ~ 9.0μF	
电容偏差 Capacitance Tolerance	±5% (J), ±10% (K)	
耐电压 Voltage Proof	1.6U _N (10s)	
损耗角正切 Dissipation Factor	≤5×10 ⁻⁴ (20°C, 1kHz)	
绝缘电阻 Insulation Resistance	IR≥100 000MΩ, C _N ≤0.33μF	(20°C, 100Vdc, 1min)
	IR×C _N ≥30 000s, C _N >0.33μF	
预期寿命 Expected lifetime	100 000h @ U _N , θ _{hs} =70°C	

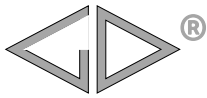
■ 产品编码说明 Part number system

■ 15 位产品代码如下:

The 15 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	3	8												

第 1~3 位	型号代码	Digit 1 to 3	Series code
	C38		C38
第 4~5 位	直流额定电压	Digit 4 to 5	D.C. rated voltage
	2J=630V 1V=700V 1W=850V		2J=630V 1V=700V 1W=850V
	3A=1 000V 3L=1 200V 3C=1 600V		3A=1 000V 3L=1 200V 3C=1 600V
	7M=1 700V 3D=2 000V 3E= 2 500V		7M=1 700V 3D=2 000V 3E= 2 500V
	4Q=3 000V		4Q=3 000V
第 6~8 位	标称容量	Digit 6 to 8	Rated capacitance value
	举例: 105=10×10 ⁵ pF=1.0μF		for example: 105=10×10 ⁵ pF=1.0μF
第 9 位	容量偏差	Digit 9	Capacitance tolerance
	J=±5%, K=±10%		J=±5%, K=±10%
第 10 位	安装孔距 P	Digit 10	Distance of hole for fixing
	见表 1.2		Referring to table 1.2
第 11 位	内部特征码	Digit 11	Internal use
第 12~15 位	引出端代码	Digit 12 to 15	Terminals code
	见表 2		Referring to table 2



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■ Table 1.1 安装孔距的选择 Selecting for distance of hole for fixing

单位: mm

额定电压 D.C. rated voltage	焊片的引出方式 Style of solder slice	外壳宽度 Width of case	安装孔距 Distance of hole for fixing		焊片间距 The distance of solder slice	
		W	P	Code	P1	
630Vdc 700Vdc 850Vdc 1 000Vdc	图 1(Style 1) 或 图 2(Style 2)	37/42	17 ~ 25	B	7	
			22 ~ 30	C	12	
	图 3(Style 3)	57	30 ~ 38	D	20	
			35 ~ 43	E	25	
	图 3(Style 3)	37	52 ~ 62	K	33	
			42	57 ~ 67	L	38
57	70 ~ 80	7	51			
1 200Vdc 1 600Vdc 1 700Vdc 2 000Vdc 2 500Vdc 3 000Vdc	图 1(Style 1) 或 图 2(Style 2)	37/42	16 ~ 24	1	6	
			21 ~ 29	2	11	
	图 2(Style 2)	57	31 ~ 39	3	21	
			36 ~ 44	4	26	
	图 3(Style 3)	37	51 ~ 61	5	32	
			42	56 ~ 66	6	37
			57	71 ~ 81	J	52

■ Table 1.2 安装孔距的选择 Selecting for distance of hole for fixing

单位: mm

额定电压 D.C. rated voltage	焊片的引出方式 Style of solder slice	外壳厚度 Thickness of case	安装孔距 Distance of hole for fixing		焊片间距 The distance of solder slice
		T	P	Code	P1
630Vdc ~ 3 000Vdc	图 4(Style 4)	19	30 ~ 34	F	15
25		36 ~ 40	G	21	
30		41 ~ 45	H	26	

注: 图 4 引出方式适用的具体规格, 需根据客户要求设计才能确定。

Whether or not the forth style of solder slice is valid, must be designed on request of customer.

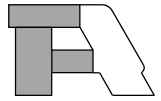
■ Table 2 引出端代码 Terminals code

单位: mm

第 13 位 Digit 13			第 14 位 Digit 14		第 15 位 Digit 15		Note (Case dimension of T)
C 高度 Height for C			焊片的引出方式 Style of solder slice		焊片的尺寸 Size of solder slice		
Code	C1	C2	Code	图(Style)	Code	L×F×N×S	
0	(C1=C2)<3		1	图 1(Style 1)	1	14.0×16.0×10.2×6.2	—
1	C1=C2=6		2	图 2(Style 2)	2	14.0×22.0×11.2×6.2	T≥20
			3	图 3(Style 3)		6	12.0×22.0×11.2×6.2
			4	图 4 (Style 4)	0	16.0×12.0×8.2×6.2	—

注: C1、C2 尺寸可以按用户需要商定。

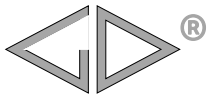
Dimensions of C1 and C2 are adjustable on request.



■ 技术参数 Technical data(mm)

630Vdc/700Vdc(420Vac) [#]									
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	dV/dt (V/μs)	İ (A)	ESR @100kHz (mΩ)	L _s (nH)	I _{max} 100kHz@70°C (A)	Part number
0.68	37.0	25.0	15.0	900	612	5.0	23	9	C381V684*01***
1.0	37.0	30.0	16.0	900	900	5.0	23	12	C381V105*01***
1.2	37.0	30.0	16.0	900	1 080	4.5	23	14	C381V125*01***
1.5	37.0	34.0	20.0	900	1 350	4.5	23	17	C381V155*01***
1.8	37.0	34.0	20.0	900	1 620	4.5	23	18	C381V185*01***
2.0	42.0	40.0	20.0	600	1 200	4.0	29	18	C381V205*02***
2.2	42.0	40.0	20.0	600	1 320	4.0	29	18.5	C381V225*02***
2.5	42.0	40.0	20.0	600	1 500	4.0	29	19	C381V255*02***
3.0	42.0	44.0	24.0	600	1 800	4.0	29	20	C381V305*02***
3.3	42.0	44.0	24.0	600	1 980	3.5	29	20	C381V335*02***
4.0	42.0	44.0	24.0	600	2 400	3.5	29	21	C381V405*02***
4.7	42.0	45.0	30.0	600	2 820	3.5	29	23	C381V475*02***
5.0	42.0	45.0	30.0	600	3 000	3.0	29	23.5	C381V505*02***
6.0	42.0	43.0	42.0	600	3 600	3.0	29	25	C381V605*02***
6.5	42.0	43.0	42.0	600	3 900	3.0	29	26	C381V655*02***
6.5	57.0	45.0	30.0	360	2 340	2.5	33	24	C381V655*03***
7.0	57.0	45.0	30.0	360	2 520	2.5	33	25	C381V705*03***
8.0	57.0	50.0	35.0	360	2 880	2.5	33	27	C381V805*03***
9.0	57.0	50.0	35.0	360	3 240	2.5	33	29	C381V905*03***

850Vdc(450Vac)									
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	dV/dt (V/μs)	İ (A)	ESR @100kHz (mΩ)	L _s (nH)	I _{max} 100kHz@70°C (A)	Part number
0.47	37.0	25.0	15.0	1 200	564	5.0	23	9	C381W474*01***
0.68	37.0	30.0	16.0	1 200	816	5.0	23	12	C381W684*01***
1.0	37.0	34.0	20.0	1 200	1 200	5.0	23	14	C381W105*01***
1.2	37.0	34.0	20.0	1 200	1 440	5.0	23	16	C381W125*01***
1.5	37.0	34.0	20.0	1 200	1 800	5.0	23	18	C381W155*01***
1.5	42.0	40.0	20.0	750	1 125	4.5	29	18.5	C381W155*02***
2.0	42.0	40.0	20.0	750	1 500	4.5	29	19	C381W205*02***
2.2	42.0	40.0	20.0	750	1 650	4.5	29	19.5	C381W225*02***
2.5	42.0	44.0	24.0	750	1 875	4.5	29	20	C381W255*02***
3.0	42.0	44.0	24.0	750	2 250	4.5	29	21	C381W305*02***
3.3	42.0	45.0	30.0	750	2 475	4.5	29	21.5	C381W335*02***
4.0	42.0	43.0	42.0	750	3 000	4.5	29	22	C381W405*02***
4.0	57.0	45.0	30.0	450	1 800	4.0	33	23	C381W405*03***
4.7	57.0	45.0	30.0	450	2 115	4.0	33	24.5	C381W475*03***
5.0	57.0	45.0	30.0	450	2 250	4.0	33	25	C381W505*03***
6.0	57.0	50.0	35.0	450	2 700	4.0	33	26	C381W605*03***
6.5	57.0	50.0	35.0	450	2 925	4.0	33	27	C381W655*03***

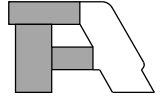


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■ 技术参数 Technical data(mm)

1 000Vdc(500Vac)									
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	dV/dt (V/μs)	İ (A)	ESR @100kHz (mΩ)	L _s (nH)	I _{max} 100kHz@70°C (A)	Part number
0.47	37.0	25.0	15.0	1 300	611	5.0	23	9	C383A474-*01***
0.68	37.0	30.0	16.0	1 300	884	5.0	23	10.5	C383A684-*01***
0.82	37.0	30.0	16.0	1 300	1 066	5.0	23	12	C383A824-*01***
1.0	37.0	34.0	20.0	1 300	1 300	4.5	23	15	C383A105-*01***
1.2	37.0	34.0	20.0	1 300	1 560	4.5	23	17	C383A125-*01***
1.2	42.0	40.0	20.0	850	1 020	4.5	29	16	C383A125-*02***
1.5	42.0	40.0	20.0	850	1 275	4.5	29	16	C383A155-*02***
2	42.0	44.0	24.0	850	1 700	4.5	29	17	C383A205-*02***
2.2	42.0	44.0	24.0	850	1 870	4.0	29	20	C383A225-*02***
2.5	42.0	45.0	30.0	850	2 125	4.0	29	21	C383A255-*02***
3.0	42.0	45.0	30.0	850	2 550	4.0	29	21.5	C383A305-*02***
3.3	42.0	43.0	42.0	850	2 805	4.0	29	22	C383A335-*02***
3.3	57.0	45.0	30.0	500	1 650	4.0	33	20	C383A335-*03***
4.0	57.0	45.0	30.0	500	2 000	4.0	33	21	C383A405-*03***
4.7	57.0	50.0	35.0	500	2 350	4.0	33	22	C383A475-*03***
5.0	57.0	50.0	35.0	500	2 500	4.0	33	23	C383A505-*03***

1 200Vdc(600Vac)									
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	dV/dt (V/μs)	İ (A)	ESR @100kHz (mΩ)	L _s (nH)	I _{max} 100kHz@70°C (A)	Part number
0.33	37.0	25.0	15.0	1500	495	4.5	23	9	C383L334-*01***
0.47	37.0	30.0	16.0	1500	705	4.5	23	11	C383L474-*01***
0.68	37.0	34.0	20.0	1500	1 020	4.5	23	12.5	C383L684-*01***
0.75	37.0	34.0	20.0	1500	1 125	4.5	23	13	C383L754-*01***
0.82	42.0	40.0	20.0	950	779	4.0	29	14.5	C383L824-*02***
1.0	42.0	40.0	20.0	950	950	4.0	29	16	C383L105-*02***
1.2	42.0	44.0	24.0	950	1 140	4.0	29	19	C383L125-*02***
1.5	42.0	44.0	24.0	950	1 425	4.0	29	19.5	C383L155-*02***
2.0	42.0	45.0	30.0	950	1 900	4.0	29	20	C383L205-*02***
2.2	42.0	43.0	42.0	950	2 090	4.0	29	21	C383L225-*02***
2.5	42.0	43.0	42.0	950	2 375	4.0	29	22	C383L255-*02***
2.2	57.0	45.0	30.0	600	1 320	3.8	33	20	C383L225-*03***
2.5	57.0	45.0	30.0	600	1 500	3.8	33	21	C383L255-*03***
3.0	57.0	45.0	30.0	600	1 800	3.8	33	22	C383L305-*03***
3.3	57.0	50.0	35.0	600	1 980	3.8	33	23	C383L335-*03***
4.0	57.0	50.0	35.0	600	2 400	3.8	33	24	C383L405-*03***

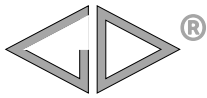


■ 技术参数 Technical data(mm)

1 600Vdc(650Vac)									
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	dV/dt (V/μs)	Î (A)	ESR @100kHz (mΩ)	L _s (nH)	I _{max} 100kHz@70°C (A)	Part number
0.22	37.0	25.0	15.0	1900	418	6.0	23	8	C383C224-*01***
0.33	37.0	30.0	16.0	1900	627	6.0	23	10	C383C334-*01***
0.39	37.0	34.0	20.0	1900	741	5.5	23	12	C383C394-*01***
0.47	37.0	34.0	20.0	1900	893	5.5	23	14	C383C474-*01***
0.68	42.0	40.0	20.0	1250	850	4.0	29	16	C383C684-*02***
0.82	42.0	44.0	24.0	1250	1025	4.0	29	19	C383C824-*02***
1.0	42.0	45.0	30.0	1250	1250	4.0	29	19.5	C383C105-*02***
1.2	42.0	45.0	30.0	1250	1500	4.0	29	20	C383C125-*02***
1.5	42.0	43.0	42.0	1250	1875	4.0	29	21	C383C155-*02***
1.5	57.0	45.0	30.0	750	1125	3.5	33	22	C383C155-*03***
2.0	57.0	50.0	35.0	750	1500	3.5	33	24	C383C205-*03***

1 700Vdc (675Vac)									
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	dV/dt (V/μs)	Î (A)	ESR @100kHz (mΩ)	L _s (nH)	I _{max} 100kHz@70°C (A)	Part number
0.15	37.0	25.0	15.0	2000	300	7.0	23	7	C387M154-*01***
0.22	37.0	30.0	16.0	2000	440	6.0	23	9	C387M224-*01***
0.33	37.0	34.0	20.0	2000	660	5.5	23	11.5	C387M334-*01***
0.39	37.0	34.0	20.0	2000	780	5.5	23	13	C387M394-*01***
0.47	42.0	36.0	24.0	1260	592	4.0	29	14	C387M474-*02***
0.56	42.0	36.0	24.0	1260	706	4.0	29	15.5	C387M564-*02***
0.68	42.0	44.0	24.0	1260	857	3.5	29	18	C387M684-*02***
0.82	42.0	44.0	24.0	1260	1033	3.5	29	19	C387M824-*02***
1.0	42.0	45.0	30.0	1260	1260	3.5	29	20	C387M105-*02***
1.2	42.0	43.0	42.0	1260	1512	3.5	29	21	C387M125-*02***
1.0	57.0	45.0	25.0	780	780	3.5	33	18	C387M105-*03***
1.2	57.0	43.5	29.5	780	936	3.5	33	19	C387M125-*03***
1.5	57.0	50.0	35.0	780	1170	3.0	33	22	C387M155-*03***
2.0	57.0	50.0	35.0	780	1560	3.0	33	24	C387M205-*03***
3.0	57.0	55.0	45.0	780	2340	3.0	33	28	C387M305-*03***

2 000Vdc(700Vac)									
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	dV/dt (V/μs)	Î (A)	ESR @100kHz (mΩ)	L _s (nH)	I _{max} 100kHz@70°C (A)	Part number
0.10	37.0	25.0	15.0	2241	224	8.0	23	7	C383D104-*01***
0.15	37.0	25.0	15.0	2241	336	8.0	23	8.5	C383D154-*01***
0.22	37.0	30.0	16.0	2241	493	6.0	23	10	C383D224-*01***
0.33	37.0	34.0	20.0	2241	740	6.0	23	13	C383D334-*01***
0.47	42.0	40.0	20.0	1300	611	4.0	29	15.5	C383D474-*02***
0.56	42.0	44.0	24.0	1300	728	4.0	29	18	C383D564-*02***
0.68	42.0	44.0	24.0	1300	884	3.5	29	18.5	C383D684-*02***
0.82	42.0	45.0	30.0	1300	1066	3.5	29	19	C383D824-*02***
1.0	42.0	43.0	42.0	1300	1300	3.5	29	21	C383D105-*02***
1.0	57.0	45.0	30.0	850	850	4.0	33	24	C383D105-*03***
1.2	57.0	45.0	30.0	850	1020	4.0	33	23	C383D125-*03***
1.5	57.0	50.0	35.0	850	1275	4.0	33	24	C383D155-*03***



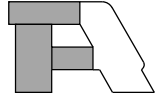
C38

■ 技术参数 Technical data(mm)

2 500Vdc(725Vac)									
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	dV/dt (V/μs)	\hat{I} (A)	ESR @100kHz (mΩ)	L _s (nH)	I _{max} 100kHz@70°C (A)	Part number
0.068	37.0	25.0	15.0	3 230	220	8.5	23	6.5	C383E683-*01***
0.10	37.0	30.0	16.0	3 230	323	8.5	23	8	C383E104-*01***
0.15	37.0	34.0	20.0	3 230	485	8.0	23	11	C383E154-*01***
0.18	37.0	34.0	20.0	3 230	581	7.5	23	12.5	C383E184-*01***
0.22	42.0	40.0	20.0	2 100	462	4.0	29	14	C383E224-*02***
0.33	42.0	44.0	24.0	2 100	693	4.0	29	15.5	C383E334-*02***
0.47	42.0	45.0	30.0	2 100	987	3.5	29	18	C383E474-*02***
0.68	42.0	43.0	42.0	2 100	1 428	3.5	29	18.5	C383E684-*02***
0.68	57.0	45.0	30.0	1 200	816	3.5	33	19	C383E684-*03***
1.0	57.0	50.0	35.0	1 200	1 200	3.5	33	19.5	C383E105-*03***

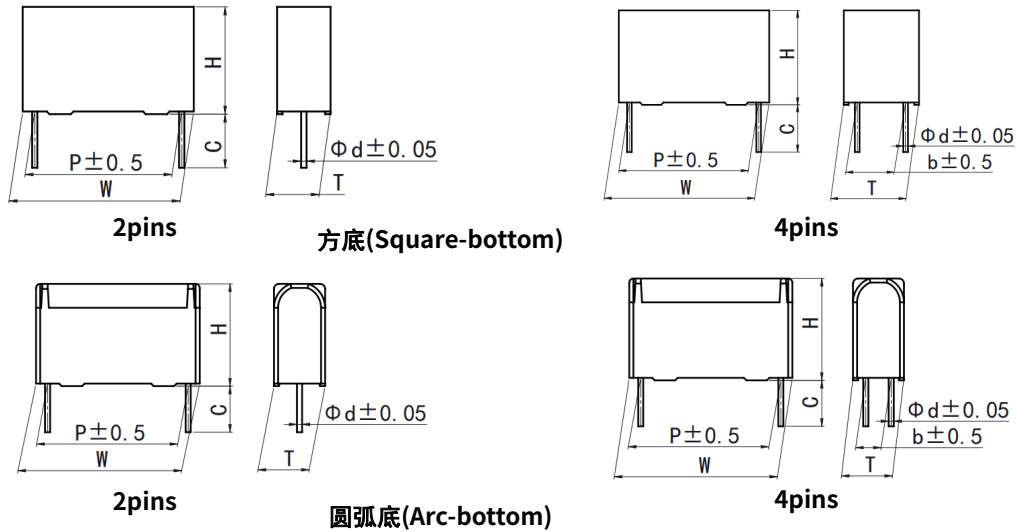
3 000Vdc(750Vac)									
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	dV/dt (V/μs)	\hat{I} (A)	ESR @100kHz (mΩ)	L _s (nH)	I _{max} 100kHz@70°C (A)	Part number
0.047	37.0	25.0	15.0	3 361	158	8.5	23	7.5	C384Q473-*01***
0.068	37.0	30.0	16.0	3 361	229	8.0	23	9	C384Q683-*01***
0.10	37.0	34.0	20.0	3 361	336	7.5	23	10.5	C384Q104-*01***
0.15	37.0	34.0	20.0	3 361	504	7.0	23	12	C384Q154-*01***
0.22	42.0	40.0	20.0	2 050	451	5.0	29	13	C384Q224-*02***
0.33	42.0	45.0	30.0	2 050	677	4.5	29	16.5	C384Q334-*02***
0.47	42.0	43.0	42.0	2 050	964	4.0	29	18	C384Q474-*02***
0.47	57.0	45.0	30.0	1 200	564	4.0	33	18.5	C384Q474-*03***
0.68	57.0	50.0	35.0	1 200	816	4.0	33	19	C384Q684-*03***
0.82	57.0	50.0	35.0	1 200	984	3.5	33	20	C384Q824-*03***

- 备注 Note: 1. “-” 表示容量偏差。 “-” =capacitance tolerance code, J=±5%, K=±10%.
2. “*” 表示脚距代码(见 table 1)。 “*” = Pitch (refer to table 1) .
3. “***” 表示引出端形式代码(见 table 2)。 “***” =terminal form code(refer to table 2)
4. “#” 当额定电压为 630Vdc 时, 第 4~5 位为 2J。 “#” when the rated voltage is 630Vdc, the digit 4~5 is 2J.
5. “I_{max}” 测试条件: 环境温度 70°C, 频率 100kHz, 外壳温度达到 85°C 下的有效值。
“I_{max}” at 100kHz, θ_{amb}=70°C, θ_{case}=85°C.
6. “ESR”、“L_s” 均为典型值。 “ESR”、“L_s” are typical values.



IGBT 吸收电容器(PCB) Snubber capacitor for IGBT(PCB)

外形图 Outline Drawing



特点

- 广泛应用于高压高频脉冲电路中
- 损耗小，内部温升小
- 优异的阻燃性能
- 适合作为 IGBT 的吸收电容

Features

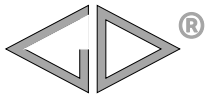
- Widely used in high voltage, high frequency circuit
- Low loss and small inherent temperature rise
- Excellent active and passive flame resistant abilities
- Especially designed as snubber capacitor for IGBT

安全认证 Safety Approvals

	UL (美国)	UL 810 (construction only), Max. 5 000Vdc, 90°C 证书号 (File No.): E256238, CCN: CZDS2
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技术要求 Specifications

引用标准 Reference Standard	GB/T 17702 (IEC 61071)	
气候类别 Climatic Category	40/85/56	
工作温度(外壳) Operating Temperature Range(case)	-40°C~85°C	
额定电压($U_{N,85^{\circ}C}$) Rated Voltage ($U_{N,85^{\circ}C}$)	630Vdc ~ 3 000Vdc	
电容量范围 Capacitance Range	0.047 μ F ~ 9.0 μ F	
电容量偏差 Capacitance Tolerance	$\pm 5\%$ (J), $\pm 10\%$ (K)	
耐电压 Voltage Proof	1.5 U_N (10s)	
损耗角正切 Dissipation Factor	5×10^{-4} (20°C, 1kHz)	
绝缘电阻 Insulation Resistance	IR $\geq 100\ 000\ \Omega$, $C_N \leq 0.33\ \mu$ F IR $\times C_N \geq 30\ 000s$, $C_N > 0.33\ \mu$ F	(20°C, 100Vdc, 1min)
预期寿命 Expected lifetime	100 000h @ U_N , $\theta_{hs} = 70^{\circ}C$	



C3H

■ 产品编码说明 Part number system

■ 15 位产品代码如下:

The 15 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	3	H												

第 1~3 位	型号代码	Digit 1 to 3	Series code
	C3D		C3D
第 4~5 位	直流额定电压	Digit 4 to 5	D.C. rated voltage
	2J=630V 1V=700V 1W=850V 3A=1 000V		2J=630V 1V=700V 1W=850V 3A=1 000V
	3L=1 200V 1C=1 600V 7M=1 700V		3L=1 200V 1C=1 600V 7M=1 700V
	3D=2 000V 3E=2 500V 4Q=3 000V		3D=2 000V 3E=2 500V 4Q=3 000V
第 6~8 位	标称容量	Digit 6 to 8	Rated capacitance value
	举例: 105=10×10 ⁵ pF=1.0μF		for example: 103=10×10 ³ pF=0.01μF
第 9 位	容量偏差	Digit 9	Capacitance tolerance
	J=±5%, K=±10%		J=±5%, K=±10%
第 10 位	引线脚距 P	Digit 10	Pitch
	D=32.5mm F=37.5mm M=52.5mm		D=32.5mm F=37.5mm M=52.5mm
第 11 位	内部特征码	Digit 11	Internal use
第 12~15 位	引线加工和包装代码	Digit 12 to 15	Lead form and packaging code

■ Table 1 引线加工和包装代码 lead form and packaging code

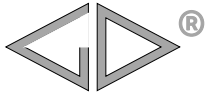
第 12 位 Digit 12		第 13 位和第 14 位 Digit 13 and Digit 14		第 15 位 Digit 15	
代码 Code	说明 explanation	代码 Code	说明 explanation	代码 Code	说明 explanation
0	2 引线 Two pins	C0	标准引线长度 5.5mm Standard lead length 5.5mm	0	引线长度偏差±1.0mm Length tolerance ±1.0mm
6	4 引线 Four pins b=5.0mm	38	引线长度 3.8mm Lead length 3.8mm	2	引线长度偏差±0.5mm Length tolerance ±0.5mm
2	4 引线 Four pins b=12.7mm				
3	4 引线 Four pins b=20.0mm				
A	4 引线 Four pins b=20.3mm				
B	4 引线 Four pins b=10.2mm				
C	4 引线 Four pins b=5.1mm				



■ 技术参数 Technical data(mm)

630Vdc/700Vdc (420Vac) #												
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±0.5	b ±0.5	d ±0.05	dV/dt (V/μs)	Î (A)	ESR @100kHz (mΩ)	I _{max} 100kHz@70°C (A)	L _s (nH)	Part number
0.68	37.0	25.0	15.0	32.5	—	1.2	900	612	6.0	6	23	C3H1V684+D00***
0.68	37.0	25.0	15.0	32.5	5.1	1.0	900	612	5.0	8	23	C3H1V684+D0C***
1.0	37.0	30.0	16.0	32.5	—	1.2	900	900	6.0	9	23	C3H1V105+ D00***
1.0	37.0	30.0	16.0	32.5	5.1	1.0	900	900	5.0	11	23	C3H1V105+ D0C***
1.2	37.0	30.0	16.0	32.5	—	1.2	900	1 080	5.5	11	23	C3H1V125+ D00***
1.2	37.0	30.0	16.0	32.5	5.1	1.0	900	1 080	4.5	13	23	C3H1V125+ D0C***
1.5	37.0	34.0	20.0	32.5	—	1.2	900	1 350	5.5	14	23	C3H1V155+ D00***
1.5	37.0	34.0	20.0	32.5	10.2	1.0	900	1 350	4.5	17	23	C3H1V155+ D0B***
1.8	37.0	34.0	20.0	32.5	—	1.2	900	1 620	5.5	14	23	C3H1V185+ D00***
1.8	37.0	34.0	20.0	32.5	10.2	1.0	900	1 620	4.5	18	23	C3H1V185+ D0B***
2.0	42.0	40.0	20.0	37.5	—	1.2	600	1 200	5.0	14	29	C3H1V205+ F00***
2.0	42.0	40.0	20.0	37.5	10.2	1.2	600	1 200	4.0	18	29	C3H1V205+ F0B***
2.2	42.0	40.0	20.0	37.5	—	1.2	600	1 320	5.0	14	29	C3H1V225+ F00***
2.2	42.0	40.0	20.0	37.5	10.2	1.2	600	1 320	4.0	18.5	29	C3H1V225+ F0B***
2.5	42.0	40.0	20.0	37.5	—	1.2	600	1 500	5.0	14	29	C3H1V255+ F00***
2.5	42.0	40.0	20.0	37.5	10.2	1.2	600	1 500	4.0	19	29	C3H1V255+ F0B***
3.0	42.0	44.0	24.0	37.5	—	1.2	600	1 800	5.0	14	29	C3H1V305+ F00***
3.0	42.0	44.0	24.0	37.5	12.7	1.2	600	1 800	4.0	20	29	C3H1V305+ F02***
3.3	42.0	44.0	24.0	37.5	—	1.2	600	1 980	4.5	14	29	C3H1V335+ F00***
3.3	42.0	44.0	24.0	37.5	12.7	1.2	600	1 980	3.5	20	29	C3H1V335+ F02***
4.0	42.0	44.0	24.0	37.5	—	1.2	600	2 400	4.5	14	29	C3H1V405+ F00***
4.0	42.0	44.0	24.0	37.5	12.7	1.2	600	2 400	3.5	21	29	C3H1V405+ F02***
4.7	42.0	45.0	30.0	37.5	20.3	1.2	600	2 820	3.5	23	29	C3H1V475+F0A***
5.0	42.0	45.0	30.0	37.5	20.3	1.2	600	3 000	3.0	23.5	29	C3H1V505+F0A***
★ 6.0	42.0	43.0	42.0	37.5	20.3	1.2	600	3600	3.0	25	29	C3H1V605+F0A***
★ 6.5	42.0	43.0	42.0	37.5	20.3	1.2	600	3 900	3.0	26	29	C3H1V655+F0A***
6.5	57.0	43.5	29.5	52.5	20.3	1.2	360	2 340	2.5	24	33	C3H1V655+M0A***
7.0	57.0	43.5	29.5	52.5	20.3	1.2	360	2 520	2.5	25	33	C3H1V705+M0A***
8.0	57.0	50.0	35.0	52.5	20.3	1.2	360	2 880	2.5	27	33	C3H1V805+M0A***
9.0	57.0	50.0	35.0	52.5	20.3	1.2	360	3 240	2.5	28	33	C3H1V905+M0A***

850Vdc(450Vac)												
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±0.5	b ±0.5	d ±0.05	dV/dt (V/μs)	Î (A)	ESR @100kHz (mΩ)	I _{max} 100kHz@70°C (A)	L _s (nH)	Part number
0.47	37.0	25.0	15.0	32.5	—	1.2	1 200	564	6.0	6	23	C3H1W474+ D00***
0.47	37.0	25.0	15.0	32.5	5.1	1.0	1 200	564	5.0	8	23	C3H1W474+ D0C***
0.68	37.0	30.0	16.0	32.5	—	1.2	1 200	816	6.0	9	23	C3H1W684+ D00***
0.68	37.0	30.0	16.0	32.5	5.1	1.0	1 200	816	5.0	11	23	C3H1W684+ D0C***
1.0	37.0	34.0	20.0	32.5	—	1.2	1 200	1 200	6.0	11	23	C3H1W105+ D00***
1.0	37.0	34.0	20.0	32.5	10.2	1.0	1 200	1 200	5.0	13	23	C3H1W105+ D0B***
1.2	37.0	34.0	20.0	32.5	—	1.2	1 200	1 440	6.0	13	23	C3H1W125+ D00***
1.2	37.0	34.0	20.0	32.5	10.2	1.0	1 200	1 440	5.0	15	23	C3H1W125+ D0B***

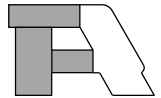


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■ 技术参数 Technical data(mm)

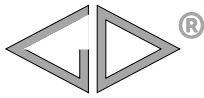
850Vdc(450Vac)												
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±0.5	b ±0.5	d ±0.05	dV/dt (V/μs)	Î (A)	ESR @100kHz (mΩ)	I _{max} 100kHz@70°C (A)	L _s (nH)	Part number
1.5	37.0	34.0	20.0	32.5	—	1.2	1 200	1 800	6.0	14	23	C3H1W155+D00***
1.5	37.0	34.0	20.0	32.5	10.2	1.0	1 200	1 800	5.0	18	23	C3H1W155+D0B***
1.5	42.0	40.0	20.0	37.5	—	1.2	750	1 125	5.5	14	29	C3H1W155+F00***
1.5	42.0	40.0	20.0	37.5	10.2	1.2	750	1 125	4.5	18.5	29	C3H1W155+F0B***
2.0	42.0	40.0	20.0	37.5	—	1.2	750	1 500	5.5	14	29	C3H1W205+F00***
2.0	42.0	40.0	20.0	37.5	10.2	1.2	750	1 500	4.5	19	29	C3H1W205+F0B***
2.2	42.0	40.0	20.0	37.5	—	1.2	750	1 650	5.5	14	29	C3H1W225+F00***
2.2	42.0	40.0	20.0	37.5	10.2	1.2	750	1 650	4.5	19.5	29	C3H1W225+F0B***
2.5	42.0	44.0	24.0	37.5	—	1.2	750	1 875	5.5	14	29	C3H1W255+F00***
2.5	42.0	44.0	24.0	37.5	12.7	1.2	750	1 875	4.5	20	29	C3H1W255+F02***
3.0	42.0	44.0	24.0	37.5	—	1.2	750	2 250	5.5	14	29	C3H1W305+F00***
3.0	42.0	44.0	24.0	37.5	12.7	1.2	750	2 250	4.5	21	29	C3H1W305+F02***
3.3	42.0	45.0	30.0	37.5	20.3	1.2	750	2 475	4.5	21.5	29	C3H1W335+F0A***
★4.0	42.0	43.0	42.0	37.5	20.3	1.2	750	3 000	4.5	22	29	C3H1W405+F0A***
4.0	57.0	43.5	29.5	52.5	20.3	1.2	450	1 800	4.0	23	33	C3H1W405+M0A***
4.7	57.0	43.5	29.5	52.5	20.3	1.2	450	2 115	4.0	24.5	33	C3H1W475+M0A***
5.0	57.0	43.5	29.5	52.5	20.3	1.2	450	2 250	4.0	25	33	C3H1W505+M0A***
6.0	57.0	50.0	35.0	52.5	20.3	1.2	450	2 700	4.0	26	33	C3H1W605+M0A***
6.5	57.0	50.0	35.0	52.5	20.3	1.2	450	2 925	4.0	27	33	C3H1W655+M0A***

1 000Vdc(500Vac)												
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±0.5	b ±0.5	d ±0.05	dV/dt (V/μs)	Î (A)	ESR @100kHz (mΩ)	I _{max} 100kHz@70°C (A)	L _s (nH)	Part number
0.47	37.0	25.0	15.0	32.5	—	1.2	1 300	611	6.0	6	23	C3H3A474+D00***
0.47	37.0	25.0	15.0	32.5	5.1	1.0	1 300	611	5.0	8	23	C3H3A474+D0C***
0.68	37.0	30.0	16.0	32.5	—	1.2	1 300	884	6.0	7	23	C3H3A684+D00***
0.68	37.0	30.0	16.0	32.5	5.1	1.0	1 300	884	5.0	9	23	C3H3A684+D0C***
0.82	37.0	30.0	16.0	32.5	—	1.2	1 300	1 066	6.0	9	23	C3H3A824+D00***
0.82	37.0	30.0	16.0	32.5	5.1	1.0	1 300	1 066	5.0	11	23	C3H3A824+D0C***
1.0	37.0	34.0	20.0	32.5	—	1.2	1 300	1 300	5.5	12	23	C3H3A105+D00***
1.0	37.0	34.0	20.0	32.5	10.2	1.0	1 300	1 300	4.5	14	23	C3H3A105+D0B***
1.2	37.0	34.0	20.0	32.5	—	1.2	1 300	1 560	5.5	14	23	C3H3A125+D00***
1.2	37.0	34.0	20.0	32.5	10.2	1.0	1 300	1 560	4.5	17	23	C3H3A125+D0B***
1.2	42.0	40.0	20.0	37.5	—	1.2	850	1 020	5.5	14	29	C3H3A125+F00***
1.2	42.0	40.0	20.0	37.5	10.2	1.2	850	1 020	4.5	16	29	C3H3A125+F0B***
1.5	42.0	40.0	20.0	37.5	—	1.2	850	1 275	5.5	14	29	C3H3A155+F00***
1.5	42.0	40.0	20.0	37.5	10.2	1.2	850	1 275	4.5	16	29	C3H3A155+F0B***
2.0	42.0	44.0	24.0	37.5	—	1.2	850	1 700	5.5	14	29	C3H3A205+F00***
2.0	42.0	44.0	24.0	37.5	12.7	1.2	850	1 700	4.5	17	29	C3H3A205+F02***


■ 技术参数 Technical data(mm)

1 000Vdc(500Vac)												
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±0.5	b ±0.5	d ±0.05	dV/dt (V/μs)	Î (A)	ESR @100kHz (mΩ)	I _{max} 100kHz@70°C (A)	L _s (nH)	Part number
2.2	42.0	44.0	24.0	37.5	—	1.2	850	1 870	5.0	14	29	C3H3A225+ F00***
2.2	42.0	44.0	24.0	37.5	12.7	1.2	850	1 870	4.0	20	29	C3H3A225+ F02***
2.5	42.0	45.0	30.0	37.5	20.3	1.2	850	2 125	4.0	21	29	C3H3A255+ F0A***
3.0	42.0	45.0	30.0	37.5	20.3	1.2	850	2 550	4.0	21.5	29	C3H3A305+ F0A***
★3.3	42.0	43.0	42.0	37.5	20.3	1.2	850	2 805	4.0	22	29	C3H3A335+ F0A***
3.3	57.0	43.5	29.5	52.5	20.3	1.2	500	1 650	4.0	20	33	C3H3A335+ M0A***
4.0	57.0	43.5	29.5	52.5	20.3	1.2	500	2 000	4.0	21	33	C3H3A405+ M0A***
4.7	57.0	50.0	35.0	52.5	20.3	1.2	500	2 350	4.0	22	33	C3H3A475+ M0A***
5.0	57.0	50.0	35.0	52.5	20.3	1.2	500	2 500	4.0	23	33	C3H3A505+ M0A***

1 200Vdc(600Vac)												
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±0.5	b ±0.5	d ±0.05	dV/dt (V/μs)	Î (A)	ESR @100kHz (mΩ)	I _{max} 100kHz@70°C (A)	L _s (nH)	Part number
0.33	37.0	25.0	15.0	32.5	—	1.2	1 500	495	6.5	6	23	C3H3L334+ D00***
0.33	37.0	25.0	15.0	32.5	5.1	1.0	1 500	495	5.5	8	23	C3H3L334+ D0C***
0.47	37.0	30.0	16.0	32.5	—	1.2	1 500	705	6.5	8	23	C3H3L474+ D00***
0.47	37.0	30.0	16.0	32.5	5.1	1.0	1 500	705	5.5	10	23	C3H3L474+ D0C***
0.68	37.0	34.0	20.0	32.5	—	1.2	1 500	1 020	6.5	9	23	C3H3L684+ D00***
0.68	37.0	34.0	20.0	32.5	10.2	1.0	1 500	1 020	5.5	11	23	C3H3L684+ D0B***
0.75	37.0	34.0	20.0	32.5	—	1.2	1 500	1 125	6.5	10	23	C3H3L754+ D00***
0.75	37.0	34.0	20.0	32.5	10.2	1.0	1 500	1 125	5.5	12	23	C3H3L754+ D0B***
0.82	42.0	40.0	20.0	37.5	—	1.2	950	779	6.0	11	29	C3H3L824+ F00***
0.82	42.0	40.0	20.0	37.5	10.2	1.2	950	779	5.0	13	29	C3H3L824+ F0B***
1.0	42.0	40.0	20.0	37.5	—	1.2	950	950	6.0	13	29	C3H3L105+ F00***
1.0	42.0	40.0	20.0	37.5	10.2	1.2	950	950	5.0	15	29	C3H3L105+ F0B***
1.2	42.0	44.0	24.0	37.5	—	1.2	950	1 140	5.5	14	29	C3H3L125+ F00***
1.2	42.0	44.0	24.0	37.5	12.7	1.2	950	1 140	4.5	17	29	C3H3L125+ F02***
1.5	42.0	44.0	24.0	37.5	—	1.2	950	1 425	5.5	14	29	C3H3L155+ F00***
1.5	42.0	44.0	24.0	37.5	12.7	1.2	950	1 425	4.5	17.5	29	C3H3L155+ F02***
2.0	42.0	45.0	30.0	37.5	20.3	1.2	950	1 900	4.5	18	29	C3H3L205+ F0A***
★2.2	42.0	43.0	42.0	37.5	20.3	1.2	950	2 090	4.5	19	29	C3H3L225+ F0A***
★2.5	42.0	43.0	42.0	37.5	20.3	1.2	950	2 375	4.5	20	29	C3H3L255+ F0A***
2.2	57.0	43.5	29.5	52.5	20.3	1.2	600	1 320	4.0	18	33	C3H3L225+ M0A***
2.5	57.0	43.5	29.5	52.5	20.3	1.2	600	1 500	4.0	19	33	C3H3L255+ M0A***
3.0	57.0	50.0	35.0	52.5	20.3	1.2	600	1 800	4.0	20	33	C3H3L305+ M0A***
3.3	57.0	50.0	35.0	52.5	20.3	1.2	600	1 980	4.0	21	33	C3H3L335+ M0A***
3.5	57.0	50.0	35.0	52.5	20.3	1.2	600	2 400	4.0	22	33	C3H3L355+ M0A***

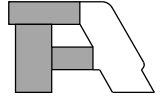


C3H

■ 技术参数 Technical data(mm)

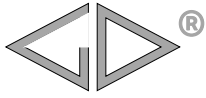
1 600Vdc(650Vac)												
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±0.5	b ±0.5	d ±0.05	dV/dt (V/μs)	İ (A)	ESR @100kHz (mΩ)	I _{max} 100kHz@70°C (A)	L _s (nH)	Part number
0.22	37.0	25.0	15.0	32.5	—	1.2	1900	418	7.5	6	23	C3H3C224+ D00***
0.22	37.0	25.0	15.0	32.5	5.1	1.0	1900	418	6.5	7	23	C3H3C224+ D0C***
0.33	37.0	30.0	16.0	32.5	—	1.2	1900	627	7.5	7.5	23	C3H3C334+ D00***
0.33	37.0	30.0	16.0	32.5	5.1	1.0	1900	627	6.5	9	23	C3H3C334+ D0C***
0.39	37.0	33.0	18.0	32.5	—	1.2	1900	741	7.0	9	23	C3H3C394+ D00***
0.39	37.0	33.0	18.0	32.5	5.1	1.0	1900	741	6.0	11	23	C3H3C394+ D0C***
0.47	37.0	34.0	20.0	32.5	—	1.2	1900	893	7.0	11	23	C3H3C474+ D00***
0.47	37.0	34.0	20.0	32.5	10.2	1.0	1900	893	6.0	13	23	C3H3C474+ D0B***
0.68	42.0	40.0	20.0	37.5	—	1.2	1250	850	4.0	14	29	C3H3C684+ F00***
0.68	42.0	40.0	20.0	37.5	10.2	1.2	1250	850	4.0	16	29	C3H3C684+ F0B***
0.82	42.0	44.0	24.0	37.5	—	1.2	1250	1025	4.0	14	29	C3H3C824+ F00***
0.82	42.0	44.0	24.0	37.5	12.7	1.2	1250	1025	4.0	17	29	C3H3C824+ F02***
1.0	42.0	45.0	30.0	37.5	20.3	1.2	1250	1250	4.0	17.5	29	C3H3C105+ F0A***
1.2	42.0	45.0	30.0	37.5	20.3	1.2	1250	1500	4.0	18	29	C3H3C125+ F0A***
★1.5	42.0	43.0	42.0	37.5	20.3	1.2	1250	1875	4.0	19	29	C3H3C155+ F0A***
1.5	57.0	43.5	29.5	52.5	20.3	1.2	750	1125	4.0	20	33	C3H3C155+ M0A***
2.0	57.0	50.0	35.0	52.5	20.3	1.2	750	1500	4.0	22	33	C3H3C205+ M0A***

1 700Vdc(675Vac)												
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±0.5	b ±0.5	d ±0.05	dV/dt (V/μs)	İ (A)	ESR @100kHz (mΩ)	I _{max} 100kHz@70°C (A)	L _s (nH)	Part number
0.15	37.0	25.0	15.0	32.5	—	1.2	2000	300	8.5	5	23	C3H7M154+ D00***
0.15	37.0	25.0	15.0	32.5	5.1	1.0	2000	300	7.5	6	23	C3H7M154+ D0C***
0.22	37.0	30.0	16.0	32.5	—	1.2	2000	440	7.5	6	23	C3H7M224+ D00***
0.22	37.0	30.0	16.0	32.5	5.1	1.0	2000	440	6.5	8	23	C3H7M224+ D0C***
0.33	37.0	34.0	20.0	32.5	—	1.2	2000	660	7.0	9	23	C3H7M334+ D00***
0.33	37.0	34.0	20.0	32.5	10.2	1.0	2000	660	6.0	10.5	23	C3H7M334+ D0B***
0.39	37.0	34.0	20.0	32.5	—	1.2	2000	780	7.0	10	23	C3H7M394+ D00***
0.39	37.0	34.0	20.0	32.5	10.2	1.0	2000	780	6.0	12	23	C3H7M394+ D0B***
0.47	42.0	36.0	24.0	37.5	—	1.2	1260	592	6.0	12	29	C3H7M474+ F00***
0.47	42.0	36.0	24.0	37.5	12.7	1.2	1260	592	5.0	14	29	C3H7M474+ F02***
0.56	42.0	36.0	24.0	37.5	—	1.2	1260	706	6.0	13	29	C3H7M564+ F00***
0.56	42.0	36.0	24.0	37.5	12.7	1.2	1260	706	5.0	15	29	C3H7M564+ F02***
0.68	42.0	44.0	24.0	37.5	—	1.2	1260	857	6.0	14	29	C3H7M684+ F00***
0.68	42.0	44.0	24.0	37.5	12.7	1.2	1260	857	6.0	16	29	C3H7M684+ F02***
0.82	42.0	44.0	24.0	37.5	—	1.2	1260	1033	5.5	14	29	C3H7M824+ F00***
0.82	42.0	44.0	24.0	37.5	12.7	1.2	1260	1033	4.5	17	29	C3H7M824+ F02***
1.0	42.0	45.0	30.0	37.5	20.3	1.2	1260	1260	4.5	18	29	C3H7M105+ F0A***
★1.2	42.0	43.0	42.0	37.5	20.3	1.2	1260	1512	4.5	19	29	C3H7M125+ F0A***
1.0	57.0	45.0	25.0	52.5	20.3	1.2	780	780	4.0	16	33	C3H7M105+ M0A***
1.2	57.0	43.5	29.5	52.5	20.3	1.2	780	936	4.0	17	33	C3H7M125+ M0A***
1.5	57.0	43.5	29.5	52.5	20.3	1.2	780	1170	4.0	20	33	C3H7M155+ M0A***
2.0	57.0	50.0	35.0	52.5	20.3	1.2	780	1560	4.0	22	33	C3H7M205+ M0A***


■ 技术参数 Technical data(mm)

2 000Vdc(700Vac)												
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±0.5	b ±0.5	d ±0.05	dV/dt (V/μs)	Î (A)	ESR @100kHz (mΩ)	I _{max} 100kHz@70°C (A)	L _s (nH)	Part number
0.10	37.0	25.0	15.0	32.5	—	1.2	2 241	224	9.5	5	23	C3H3D104+ D00***
0.10	37.0	25.0	15.0	32.5	5.1	1.0	2 241	224	8.5	6	23	C3H3D104+ D0C***
0.15	37.0	25.0	15.0	32.5	—	1.2	2 241	336	9.5	6	23	C3H3D154+ D00***
0.15	37.0	25.0	15.0	32.5	5.1	1.0	2 241	336	8.5	8	23	C3H3D154+ D0C***
0.22	37.0	30.0	16.0	32.5	—	1.2	2 241	493	7.5	7.5	23	C3H3D224+ D00***
0.22	37.0	30.0	16.0	32.5	5.1	1.0	2 241	493	6.5	9	23	C3H3D224+ D0C***
0.33	37.0	34.0	20.0	32.5	—	1.2	2 241	740	7.5	10	23	C3H3D334+ D00***
0.33	37.0	34.0	20.0	32.5	10.2	1.0	2 241	740	6.5	12	23	C3H3D334+ D0B***
0.47	42.0	40.0	20.0	37.5	—	1.2	1 300	611	6.0	13	29	C3H3D474+ F00***
0.47	42.0	40.0	20.0	37.5	10.2	1.2	1 300	611	5.0	15	29	C3H3D474+ F0B***
0.56	42.0	44.0	24.0	37.5	—	1.2	1 300	728	6.0	14	29	C3H3D564+ F00***
0.56	42.0	44.0	24.0	37.5	12.7	1.2	1 300	728	5.0	16	29	C3H3D564+ F02***
0.68	42.0	44.0	24.0	37.5	—	1.2	1 300	884	5.5	14	29	C3H3D684+ F00***
0.68	42.0	44.0	24.0	37.5	12.7	1.2	1 300	884	4.5	16.5	29	C3H3D684+ F02***
0.82	42.0	45.0	30.0	37.5	20.3	1.2	1 300	1 066	4.5	17	29	C3H3D824+ F0A***
1.0	42.0	43.0	42.0	37.5	20.3	1.2	1 300	1 300	4.5	19	29	C3H3D105+ F0A***
1.0	57.0	43.5	29.5	52.5	20.3	1.2	850	850	4.5	20	33	C3H3D105+ M0A***
1.2	57.0	43.5	29.5	52.5	20.3	1.2	850	1 020	4.5	21	33	C3H3D125+ M0A***
1.5	57.0	50.0	35.0	52.5	20.3	1.2	850	1 275	4.5	22	33	C3H3D155+ M0A***

2 500Vdc(725Vac)												
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±0.5	b ±0.5	d ±0.05	dV/dt (V/μs)	Î (A)	ESR @100kHz (mΩ)	I _{max} 100kHz@70°C (A)	L _s (nH)	Part number
0.068	37.0	25.0	15.0	32.5	—	1.2	3 230	220	10.0	5	23	C3H3E683+ D00***
0.068	37.0	25.0	15.0	32.5	5.1	1.0	3 230	220	9.0	6	23	C3H3E683+ D0C***
0.10	37.0	30.0	16.0	32.5	—	1.2	3 230	323	10.0	6	23	C3H3E104+ D00***
0.10	37.0	30.0	16.0	32.5	5.1	1.0	3 230	323	9.0	7	23	C3H3E104+ D0C***
0.15	37.0	34.0	20.0	32.5	—	1.2	3 230	485	9.5	8	23	C3H3E154+ D00***
0.15	37.0	34.0	20.0	32.5	10.2	1.0	3 230	485	8.5	10	23	C3H3E154+ D0B***
0.18	37.0	34.0	20.0	32.5	—	1.2	3 230	581	9.0	10.5	23	C3H3E184+ D00***
0.18	37.0	34.0	20.0	32.5	10.2	1.0	3 230	581	8.0	12	23	C3H3E184+ D0B***
0.22	42.0	40.0	20.0	37.5	—	1.2	2 100	462	5.5	11	29	C3H3E224+ F00***
0.22	42.0	40.0	20.0	37.5	10.2	1.2	2 100	462	4.5	13	29	C3H3E224+ F0B***
0.33	42.0	44.0	24.0	37.5	—	1.2	2 100	693	5.5	13	29	C3H3E334+ F00***
0.33	42.0	44.0	24.0	37.5	12.7	1.2	2 100	693	4.5	15.2	29	C3H3E334+ F02***
0.47	42.0	45.0	30.0	37.5	20.3	1.2	2 100	987	4.0	16	29	C3H3E474+ F0A***
★0.68	42.0	43.0	42.0	37.5	20.3	1.2	2 100	1428	4.0	16.5	29	C3H3E684+ F0A***
0.68	57.0	43.5	29.5	52.5	20.3	1.2	1 200	816	4.0	17	33	C3H3E684+ M0A***
1.0	57.0	50.0	35.0	52.5	20.3	1.2	1 200	1 200	4.0	17.5	33	C3H3E105+ M0A***



C3H

■ 技术参数 Technical data(mm)

3 000Vdc(750Vac)												
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±0.5	b ±0.5	d ±0.05	dV/dt (V/μs)	Î (A)	ESR @100kHz (mΩ)	I _{max} 100kHz@70°C (A)	L _s (nH)	Part number
0.047	37.0	25.0	15.0	32.5	—	1.2	3 361	158	10.5	5.5	23	C3H4Q473+ D00***
0.047	37.0	25.0	15.0	32.5	5.1	1.0	3 361	158	9.5	7	23	C3H4Q473+ D0C***
0.068	37.0	30.0	16.0	32.5	—	1.2	3 361	229	10.0	6	23	C3H4Q683+ D00***
0.068	37.0	30.0	16.0	32.5	5.1	1.0	3 361	229	9.0	8	23	C3H4Q683+ D0C***
0.10	37.0	34.0	20.0	32.5	—	1.2	3 361	336	9.5	8	23	C3H4Q104+ D00***
0.10	37.0	34.0	20.0	32.5	10.2	1.0	3 361	336	8.5	10	23	C3H4Q104+ D0B***
0.15	37.0	34.0	20.0	32.5	—	1.2	3 361	504	9.0	9	23	C3H4Q154+ D00***
0.15	37.0	34.0	20.0	32.5	10.2	1.0	3 361	504	8.0	11	23	C3H4Q154+ D0B***
0.22	42.0	40.0	20.0	37.5	—	1.2	2 050	451	7.0	10	29	C3H4Q224+ F00***
0.22	42.0	40.0	20.0	37.5	10.2	1.2	2 050	451	6.0	12	29	C3H4Q224+ F0B***
0.33	42.0	45.0	30.0	37.5	20.3	1.2	2 050	677	5.5	14.5	29	C3H4Q334+ F0A***
★0.47	42.0	43.0	42.0	37.5	20.3	1.2	2 050	964	5.0	16	29	C3H4Q474+ F0A***
0.47	57.0	43.5	29.5	52.5	20.3	1.2	1 200	564	5.0	16.5	33	C3H4Q474+ M0A***
0.68	57.0	50.0	35.0	52.5	20.3	1.2	1 200	816	5.0	17	33	C3H4Q684+ M0A***
0.82	57.0	50.0	35.0	52.5	20.3	1.2	1 200	984	4.5	18	33	C3H4Q824+ M0A***

备注 Note: 1. “+” 表示容量偏差。 “+” =capacitance tolerance code, J=±5%, K=±10%.

2. “***” 表示引线加工和包装代码。 “***” = lead form and packaging code.

3. “#” 当额定电压为 630Vdc时, 第 4~5 位为 2J。 “#” when the rated voltage is 630Vdc, the digit 4~5 is 3J.

4. 当 “b=5.0mm” 时, 第 12 位代码为 “6”; 当 “b=10.0mm” 时, 第 12 位代码为 “1”; 当 “b=20.0mm” 时, 第 12 位代码为 “3”。

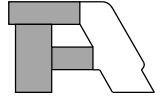
When the b=5.0mm, the digit 12 is “6”; When the b=10.0mm, the digit 12 is “1”; When the b=20.0mm, the digit 12 is “3”.

5. “I_{max}” 测试条件: 环境温度 70°C, 频率 100kHz, 外壳温度达到 85°C下的有效值。

“I_{max}” at 10kHz, θ_{amb}=70°C, Δθ_{case}=15.0°C.

6. “ESR”、“L_s” 均为典型值。 “ESR”, “L_s” are typical values.

7. “★” 表示外壳为圆弧底。 “★” = Arc-bottom of the outer shell.



IGBT 吸收电容器 (轴向) Snubber capacitor for IGBT(Axial-type)

外形图 Outline Drawing

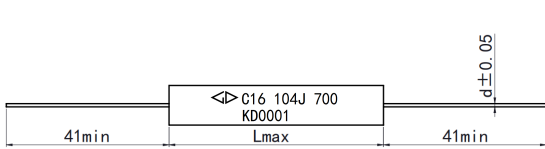


图 1 (Style 1)

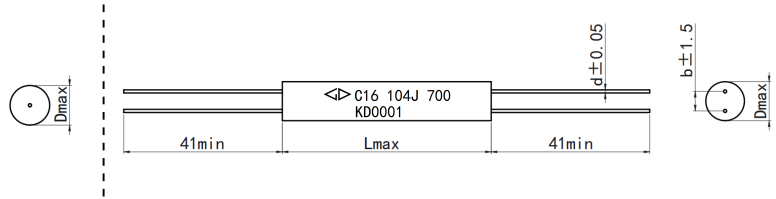


图 2 (Style 2)

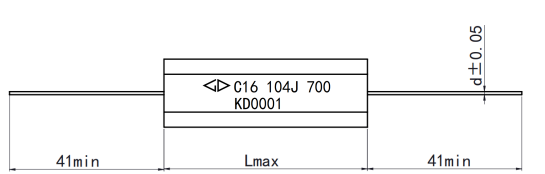


图 3 (Style 3)

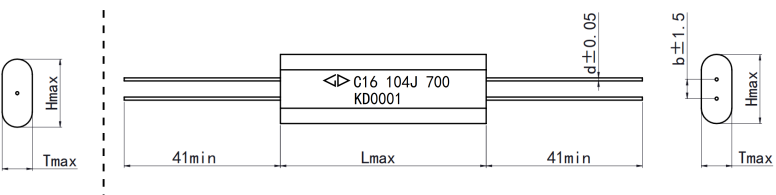


图 4 (Style 4)

特点

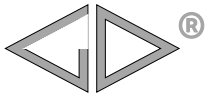
- 金属化聚丙烯膜，轴向
- 自愈性能优异
- 损耗小，内部温升小
- 外包聚酯胶带纸，两端灌注阻燃性环氧树脂 (UL94 V-0)
- 广泛应用于各种高压、高频、高电流场合

Features

- Metallized polypropylene film, Axial-type
- Excellent self-healing property
- Low loss and small inherent temperature rise
- Wrapped with polyester adhesive tape and ends filled with flame retardant epoxy resin(UL94 V-0)
- Widely used in high voltage, high frequency circuit

技术要求 Specifications

引用标准 Reference Standard	GB/T 17702 (IEC 61071)	
气候类别 Climatic Category	40/105/56	
工作温度范围(外壳) Operating temperature range (case)	-40°C~105°C	
额定电压 Rated Voltage	630Vdc ~ 3 000Vdc	
电容量范围 Capacitance Range	0.006 8μF ~ 10.0μF	
电容量偏差 Capacitance Tolerance	±5% (J), ±10% (K)	
耐电压 Voltage Proof	1.5U _N (10s)	
损耗角正切 Dissipation Factor	≤5×10 ⁻⁴ (20°C, 1kHz)	
绝缘电阻 Insulation Resistance	IR≥100 000MΩ, C _N ≤0.33μF IR×C _N ≥30 000s, C _N >0.33μF	(20°C, 100Vdc, 1min)
预期寿命 Expected lifetime	100 000h @ U _N , θ _{hs} =70°C	



C16

■ 产品编码说明 Part number system

15 位产品代码如下：

The 15 digits part number is formed as follow:

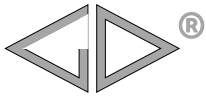
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	1	6												

第 1~3 位	型号代码	Digit 1 to 3	Series code
	C16		C16
第 4~5 位	直流额定电压	Digit 4 to 5	D.C. rated voltage
	2J=630V 1V=700V 1W=850V		2J=630V 1V=700V 1W=850V
	3A=1 000V 3L=1 200V 4M=1 500V		3A=1 000V 3L=1 200V 4M=1 500V
	3C=1 600V 7M=1 700V 3D= 2 000V		3C=1 600V 7M=1 700V 3D= 2 000V
	3E= 2 500V 4Q=3 000V		3E= 2 500V 4Q=3 000V
第 6~8 位	标称容量	Digit 6 to 8	Rated capacitance value
	举例: 105=10×10 ⁵ pF=1.0μF		for example: 105=10×10 ⁵ pF=1.0μF
第 9 位	容量偏差	Digit 9	Capacitance tolerance
	J=±5%, K=±10%		J=±5%, K=±10%
第 10 位	引线脚距 b	Digit 10	Pitch
	0=两引线 1=10.0mm 2=12.7mm		0=2Pins 1=10.0 mm 2=12.7 mm
第 11 位	内部特征码	Digit 11	Internal use
	0=圆形 A=扁形		0=Axial A= Axial flat
第 12 位	外形尺寸: L	Digit 12	Dimension: L
	1=29 mm 2=34 mm 3=39 mm		1=29 mm 2=34 mm 3=39 mm
	4=44 mm 5=54 mm 6=58 mm		4=44 mm 5=54 mm 6=58 mm
第 13~15 位	引线长度	Digit 13to 15	Lead length
	000 表示标准的引线长度(41mm min)		000 means lead length (41mm min)



■ 技术参数 Technical data(mm)

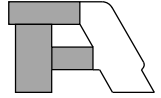
630Vdc/700Vdc (420Vac) #															
C _N (μF)	Axial		Axial flat			b	d	dV/dt (V/μs)	î (A)	2 Pins		4 Pins		L _s (nH)	Part number
	D max	L max	T max	H max	L max					ESR @100kHz (mΩ)	I _{max} (A)	ESR @100kHz (mΩ)	I _{max} (A)		
0.15	10.5	29.0	7.9	14.2	29.0	—	0.8	950	143	11.0	3.7	—	—	14	C161V154+0-1000
0.22	12.0	29.0	9.6	15.9	29.0	—	0.8	950	209	9.0	4.6	—	—	15	C161V224+0-1000
0.33	14.0	29.0	11.8	18.1	29.0	—	0.8	950	314	7.0	6.0	—	—	15	C161V334+0-1000
0.47	16.1	29.0	14.2	20.5	29.0	—	1.0	950	447	5.5	8.0	—	—	15	C161V474+0-1000
0.33	12.3	34.0	10.0	16.2	34.0	—	0.8	700	231	7.5	5.8	—	—	17	C161V334+0-2000
0.47	14.4	34.0	12.4	18.6	34.0	—	0.8	700	329	6.0	7.5	—	—	17	C161V474+0-2000
0.68	16.8	34.0	15.0	21.3	34.0	—	1.0	700	476	5.0	9.0	—	—	17	C161V684+0-2000
1.0	19.8	34.0	17.6	25.4	34.0	—	1.0	700	700	4.3	10.5	—	—	18	C161V105+0-2000
1.5	23.8	34.0	21.9	29.7	34.0	—	1.2	700	1050	4.0	12.5	—	—	19	C161V155+0-2000
0.82	16.5	39.0	14.6	20.9	39.0	—	1.0	600	492	5.5	8.0	—	—	19	C161V824+0-3000
1.0	17.9	39.0	15.5	23.3	39.0	—	1.0	600	600	4.5	9.5	—	—	20	C161V105+0-3000
1.5	21.4	39.0	19.3	27.1	39.0	—	1.2	600	900	4.3	12.0	—	—	20	C161V155+0-3000
2.0	24.4	39.0	22.5	30.4	39.0	—	1.2	600	1200	4.0	14.0	—	—	21	C161V205+0-3000
2.2	25.4	39.0	23.7	31.6	39.0	—	1.2	600	1320	4.0	14.0	—	—	22	C161V225+0-3000
2.5	27.0	39.0	25.4	33.2	39.0	—	1.2	600	1500	4.0	14.0	3.5	16.7	22	C161V255+*-3000
3.0	29.3	39.0	27.2	36.6	39.0	—	1.2	600	1800	4.0	14.0	3.5	19.1	24	C161V305+*-3000
3.3	30.7	39.0	28.6	38.0	39.0	—	1.2	600	1980	4.0	14.0	3.5	20.5	24	C161V335+*-3000
1.0	17.0	44.0	15.2	21.5	44.0	—	1.0	475	475	5.0	10.0	—	—	21	C161V105+0-4000
1.5	20.3	44.0	18.0	25.9	44.0	—	1.2	475	713	4.5	12.0	—	—	21	C161V155+0-4000
2.0	23.0	44.0	21.1	28.9	44.0	—	1.2	475	950	4.3	14.0	—	—	22	C161V205+0-4000
2.2	24.0	44.0	22.2	30.0	44.0	—	1.2	475	1045	4.0	14.0	—	—	23	C161V225+0-4000
2.5	25.5	44.0	23.7	31.6	44.0	—	1.2	475	1188	4.0	14.0	3.5	15.4	23	C161V255+*-4000
3.0	27.7	44.0	25.4	34.8	44.0	—	1.2	475	1425	4.0	14.0	3.5	17.5	24	C161V305+*-4000
3.3	29.0	44.0	26.7	36.2	44.0	—	1.2	475	1568	4.0	14.0	3.5	18.7	25	C161V335+*-4000
4.0	31.7	44.0	29.7	39.1	44.0	—	1.2	475	1900	4.0	14.0	3.5	21.5	26	C161V405+*-4000
3.3	25.7	54.0	23.9	31.8	54.0	—	1.2	350	1155	4.0	14.0	3.5	15.6	26	C161V335+*-5000
4.0	28.0	54.0	25.7	35.2	54.0	—	1.2	350	1400	3.6	14.0	3.3	17.7	27	C161V405+*-5000
4.7	30.2	54.0	28.1	37.5	54.0	—	1.2	350	1645	3.5	14.0	3.2	19.7	28	C161V475+*-5000
5.0	31.1	54.0	29.1	38.5	54.0	—	1.2	350	1750	3.5	14.0	3.1	20.5	28	C161V505+*-5000
6.8	35.9	54.0	33.5	44.5	54.0	—	1.2	350	2380	3.5	14.0	3.1	25.3	31	C161V685+*-5000
8.2	39.2	54.0	37.1	48.1	54.0	—	1.2	350	2870	3.5	14.0	3.1	28.9	33	C161V825+*-5000
3.3	24.3	58.0	22.4	30.3	58.0	—	1.2	300	990	4.5	14.0	4.0	15.5	27	C161V335+*-6000
4.0	26.5	58.0	24.9	32.7	58.0	—	1.2	300	1200	4.0	14.0	3.5	16.4	28	C161V405+*-6000
4.7	28.6	58.0	26.3	35.7	58.0	—	1.2	300	1410	3.8	14.0	3.4	18.1	29	C161V475+*-6000
5.0	29.4	58.0	27.2	36.6	58.0	—	1.2	300	1500	3.6	14.0	3.3	18.9	29	C161V505+*-6000
6.8	33.9	58.0	31.4	42.3	58.0	—	1.2	300	2040	3.5	14.0	3.1	23.2	31	C161V685+*-6000
8.2	37.1	58.0	34.8	45.8	58.0	—	1.2	300	2460	3.5	14.0	3.1	26.3	33	C161V825+*-6000
10.0	40.7	58.0	38.8	49.7	58.0	—	1.2	300	3000	3.5	14.0	3.1	28.0	34	C161V106+*-6000



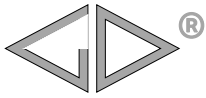
C16

■ 技术参数 Technical data(mm)

850Vdc(450Vac)															
C _N (μF)	Axial		Axial flat			b	d	dV/dt (V/μs)	Î (A)	2 Pins		4 Pins		L _s (nH)	Part number
	D max	L max	T max	H max	L max					ESR @100kHz (mΩ)	I _{max} (A)	ESR @100kHz (mΩ)	I _{max} (A)		
0.10	10.4	29.0	6.4	12.5	29.0	—	0.8	1 200	120	13.0	3.6	—	—	14	C161W104+0-1000
0.15	12.0	29.0	8.0	14.1	29.0	—	0.8	1 200	180	10.0	4.5	—	—	14	C161W154+0-1000
0.22	13.9	29.0	9.9	15.9	29.0	—	0.8	1 200	264	7.5	5.8	—	—	15	C161W224+0-1000
0.33	16.1	29.0	12.1	18.2	29.0	—	1.0	1 200	396	6.0	7.5	—	—	15	C161W334+0-1000
0.15	10.9	34.0	6.9	13.0	34.0	—	0.8	900	135	10.5	4.5	—	—	16	C161W154+0-2000
0.22	12.5	34.0	8.5	14.6	34.0	—	0.8	900	198	8.0	5.0	—	—	16	C161W224+0-2000
0.33	14.6	34.0	10.6	16.7	34.0	—	0.8	900	297	6.5	6.3	—	—	17	C161W334+0-2000
0.47	16.9	34.0	12.2	19.8	34.0	—	1.0	900	423	5.5	7.8	—	—	17	C161W474+0-2000
0.68	19.8	34.0	15.0	22.7	34.0	—	1.0	900	612	4.5	9.9	—	—	18	C161W684+0-2000
0.75	20.6	34.0	15.9	23.5	34.0	—	1.2	900	675	4.3	11.0	—	—	19	C161W754+0-2000
1.0	23.4	34.0	18.7	26.3	34.0	—	1.2	900	900	4.0	12.9	—	—	19	C161W105+0-2000
0.47	15.5	39.0	11.5	17.5	39.0	—	1.0	750	353	6.0	7.5	—	—	19	C161W474+0-3000
0.68	18.0	39.0	13.3	21.0	39.0	—	1.0	750	510	5.0	8.9	—	—	19	C161W684+0-3000
1.0	21.3	39.0	16.6	24.2	39.0	—	1.2	750	750	4.5	11.5	—	—	20	C161W105+0-3000
1.5	25.6	39.0	20.8	28.4	39.0	—	1.2	750	1 125	4.0	14.0	—	—	22	C161W155+0-3000
2.0	29.2	39.0	23.5	32.8	39.0	—	1.2	750	1 500	4.0	14.0	3.5	18.6	23	C161W205+*-3000
2.2	30.5	39.0	24.8	34.1	39.0	—	1.2	750	1 650	4.0	14.0	3.5	20.0	24	C161W225+*-3000
2.5	32.3	39.0	25.9	36.7	39.0	—	1.2	750	1 875	4.0	14.0	3.5	22.0	25	C161W255+*-3000
0.68	17.0	44.0	12.3	19.9	44.0	—	1.0	600	408	5.5	9.5	—	—	21	C161W684+0-4000
1.0	20.0	44.0	15.3	22.9	44.0	—	1.0	600	600	4.5	11.5	—	—	22	C161W105+0-4000
1.5	24.0	44.0	19.2	26.8	44.0	—	1.2	600	900	4.0	14.0	—	—	22	C161W155+0-4000
2.0	27.3	44.0	21.7	30.9	44.0	—	1.2	600	1 200	4.0	14.0	3.5	18.0	24	C161W205+*-4000
2.2	28.5	44.0	22.9	32.1	44.0	—	1.2	600	1 320	4.0	14.0	3.5	18.5	24	C161W225+*-4000
2.5	30.3	44.0	24.6	33.8	44.0	—	1.2	600	1 500	4.0	14.0	3.5	19.5	25	C161W255+*-4000
3.0	32.9	44.0	26.5	37.3	44.0	—	1.2	600	1 800	4.0	14.0	3.5	21.5	26	C161W305+*-4000
2.2	25.3	54.0	20.5	28.1	54.0	—	1.2	460	1 012	4.5	14.0	—	—	26	C161W225+0-5000
2.5	26.8	54.0	21.2	30.4	54.0	—	1.2	460	1 150	4.0	14.0	3.5	16.1	27	C161W255+*-5000
3.0	29.2	54.0	23.5	32.8	54.0	—	1.2	460	1 380	4.0	14.0	3.5	18.2	27	C161W305+*-5000
3.3	30.5	54.0	24.8	34.1	54.0	—	1.2	460	1 518	4.0	14.0	3.5	19.4	28	C161W335+*-5000
4.0	33.3	54.0	26.9	37.7	54.0	—	1.2	460	1 840	4.0	14.0	3.5	22.1	29	C161W405+*-5000
4.7	35.9	54.0	29.4	40.2	54.0	—	1.2	460	2 162	4.0	14.0	3.5	24.8	31	C161W475+*-5000
5.0	37.0	54.0	30.5	41.3	54.0	—	1.2	460	2 300	4.0	14.0	3.5	25.9	31	C161W505+*-5000
2.2	24.0	58.0	19.2	26.8	58.0	—	1.2	375	825	4.3	14.0	—	—	27	C161W225+0-6000
2.5	25.4	58.0	20.6	28.2	58.0	—	1.2	375	938	4.0	14.0	3.5	16.0	27	C161W255+*-6000
3.0	27.6	58.0	22.0	31.2	58.0	—	1.2	375	1 125	4.0	14.0	3.5	16.8	28	C161W305+*-6000
3.3	28.8	58.0	23.2	32.4	58.0	—	1.2	375	1 238	4.0	14.0	3.5	17.8	29	C161W335+*-6000
4.0	31.5	58.0	25.1	35.9	58.0	—	1.2	375	1 500	4.0	14.0	3.5	20.2	30	C161W405+*-6000
4.7	34.0	58.0	27.5	38.3	58.0	—	1.2	375	1 763	4.0	14.0	3.5	21.0	31	C161W475+*-6000
5.0	35.0	58.0	28.5	39.3	58.0	—	1.2	375	1 875	4.0	14.0	3.5	23.5	31	C161W505+*-6000
6.8	40.4	58.0	33.9	44.7	58.0	—	1.2	375	2 550	4.0	14.0	3.5	26.0	34	C161W685+*-6000


■ 技术参数 Technical data(mm)

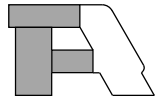
1 000Vdc(500Vac)															
C _N (μF)	Axial		Axial flat			b	d	dV/dt (V/μs)	î (A)	2 Pins		4 Pins		L _s (nH)	Part number
	D max	L max	T max	H max	L max					ESR @100kHz (mΩ)	I _{max} (A)	ESR @100kHz (mΩ)	I _{max} (A)		
0.068	9.8	29.0	5.8	11.9	29.0	—	0.8	1 400	95	16.5	3.5	—	—	14	C163A683+0-1000
0.1	11.1	29.0	7.1	13.2	29.0	—	0.8	1 400	140	12.0	4.3	—	—	14	C163A104+0-1000
0.15	12.8	29.0	8.8	14.9	29.0	—	0.8	1 400	210	9.5	5.6	—	—	15	C163A154+0-1000
0.22	14.8	29.0	10.8	16.9	29.0	—	0.8	1 400	308	7.0	6.8	—	—	16	C163A224+0-1000
0.15	11.3	34.0	7.3	13.4	34.0	—	0.8	1 050	158	10.0	5.0	—	—	16	C163A154+0-2000
0.22	13.3	34.0	9.3	15.4	34.0	—	0.8	1 050	231	7.5	7.0	—	—	17	C163A224+0-2000
0.33	15.6	34.0	11.0	18.6	34.0	—	1.0	1 050	347	6.0	8.5	—	—	17	C163A334+0-2000
0.47	18.1	34.0	13.4	21.1	34.0	—	1.0	1 050	494	5.0	10.0	—	—	18	C163A474+0-2000
0.68	21.3	34.0	16.5	24.1	34.0	—	1.2	1 050	714	4.0	12.1	—	—	18	C163A684+0-2000
0.33	14.6	39.0	10.6	16.7	39.0	—	0.8	850	281	8.0	7.2	—	—	19	C163A334+0-3000
0.47	16.8	39.0	12.2	19.8	39.0	—	1.0	850	400	5.5	8.8	—	—	19	C163A474+0-3000
0.68	19.7	39.0	15.0	22.6	39.0	—	1.0	850	578	4.5	11.1	—	—	20	C163A684+0-3000
1.0	23.3	39.0	18.6	26.2	39.0	—	1.2	850	850	4.0	14.0	—	—	21	C163A105+0-3000
1.5	28.0	39.0	22.4	31.7	39.0	—	1.2	850	1275	4.0	14.0	3.5	18.1	23	C163A155+*-3000
0.47	15.6	44.0	11.0	18.6	44.0	—	1.0	780	367	6.0	9.2	—	—	21	C163A474+0-4000
0.68	18.2	44.0	13.5	21.2	44.0	—	1.0	780	530	5.0	10.1	—	—	21	C163A684+0-4000
1.0	21.5	44.0	16.8	24.4	44.0	—	1.2	780	780	4.0	12.8	—	—	22	C163A105+0-4000
1.5	25.8	44.0	20.2	29.5	44.0	—	1.2	780	1 170	4.0	14.0	3.5	16.8	23	C163A155+*-4000
2.0	29.4	44.0	23.1	33.8	44.0	—	1.2	780	1 560	4.0	14.0	3.5	20.5	25	C163A205+*-4000
1.5	22.9	54.0	18.2	25.8	54.0	—	1.2	500	750	4.5	14.0	—	—	25	C163A155+0-5000
2.0	26.1	54.0	20.5	29.8	54.0	—	1.2	500	1 000	4.3	14.0	3.8	16.0	26	C163A205+*-5000
2.2	27.3	54.0	21.7	30.9	54.0	—	1.2	500	1 100	4.0	14.0	3.5	16.7	27	C163A225+*-5000
2.5	28.9	54.0	23.3	32.5	54.0	—	1.2	500	1 250	4.0	14.0	3.5	18.1	27	C163A255+*-5000
3.0	31.5	54.0	25.0	35.8	54.0	—	1.2	500	1 500	4.0	14.0	3.5	20.5	28	C163A305+*-5000
3.3	32.9	54.0	26.4	37.2	54.0	—	1.2	500	1 650	4.0	14.0	3.5	21.0	29	C163A335+*-5000
4.0	36.0	54.0	29.5	40.3	54.0	—	1.2	500	2 000	4.0	14.0	3.5	23.0	31	C163A405+*-5000
1.5	22.0	58.0	17.2	24.9	58.0	—	1.2	425	638	5.0	14.0	—	—	26	C163A155+0-6000
2.0	25.0	58.0	19.4	28.6	58.0	—	1.2	425	850	4.5	14.0	4.0	15.0	27	C163A205+*-6000
2.2	26.1	58.0	20.5	29.7	58.0	—	1.2	425	935	4.0	14.0	3.5	15.7	28	C163A225+*-6000
2.5	27.6	58.0	22.0	31.3	58.0	—	1.2	425	1 063	4.0	14.0	3.5	17.0	28	C163A255+*-6000
3.0	30.1	58.0	23.7	34.5	58.0	—	1.2	425	1 275	4.0	14.0	3.5	19.2	29	C163A305+*-6000
3.3	31.4	58.0	25.0	35.8	58.0	—	1.2	425	1 403	4.0	14.0	3.5	20.4	30	C163A335+*-6000
4.0	34.4	58.0	27.9	38.7	58.0	—	1.2	425	1 700	4.0	14.0	3.5	21.0	31	C163A405+*-6000
4.7	37.1	58.0	30.5	41.3	58.0	—	1.2	425	1 998	4.0	14.0	3.5	22.0	32	C163A475+*-6000



C16

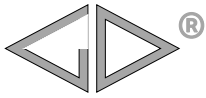
■ 技术参数 Technical data(mm)

1 200Vdc(600Vac)															
C _n (μF)	Axial		Axial flat			b	d	dV/dt (V/μs)	î (A)	2 Pins		4 Pins		L _s (nH)	Part number
	D max	L max	T max	H max	L max					ESR @100kHz (mΩ)	I _{max} (A)	ESR @100kHz (mΩ)	I _{max} (A)		
0.047	9.7	29.0	7.1	13.4	29.0	—	0.8	1 600	75	20.0	3.4	—	—	15	C163L473+0-1000
0.068	11.0	29.0	8.5	14.8	29.0	—	0.8	1 600	109	15.5	4.2	—	—	15	C163L683+0-1000
0.1	12.7	29.0	10.4	16.7	29.0	—	0.8	1 600	160	12.0	5.2	—	—	15	C163L104+0-1000
0.15	14.8	29.0	12.8	19.1	29.0	—	0.8	1 600	240	9.2	6.6	—	—	16	C163L154+0-1000
0.22	17.4	29.0	14.9	22.8	29.0	—	1.0	1 600	352	7.0	8.5	—	—	16	C163L224+0-1000
0.1	11.4	34.0	9.0	15.3	34.0	—	0.8	1 350	135	13.5	5.5	—	—	17	C163L104+0-2000
0.15	13.3	34.0	11.1	17.4	34.0	—	0.8	1 350	203	10.0	6.5	—	—	17	C163L154+0-2000
0.22	15.2	34.0	13.5	19.8	34.0	—	0.8	1 350	297	6.8	9.0	—	—	18	C163L224+0-2000
0.33	18.4	34.0	16.0	23.8	34.0	—	1.0	1 350	446	5.5	9.4	—	—	18	C163L334+0-2000
0.47	21.5	34.0	19.3	27.2	34.0	—	1.2	1 350	635	4.0	11.9	—	—	18	C163L474+0-2000
0.22	13.4	39.0	11.5	17.8	39.0	—	0.8	1 050	231	8.5	6.5	—	—	19	C163L224+0-3000
0.33	16.1	39.0	13.5	21.4	39.0	—	1.0	1 050	347	6.5	7.7	—	—	19	C163L334+0-3000
0.47	18.7	39.0	16.4	24.2	39.0	—	1.0	1 050	494	5.0	10.5	—	—	19	C163L474+0-3000
0.68	22.0	39.0	20.0	27.8	39.0	—	1.2	1 050	714	4.5	12.1	—	—	20	C163L684+0-3000
1.0	26.2	39.0	23.8	33.2	39.0	—	1.2	1 050	1 050	4.0	14.0	3.5	15.5	22	C163L105+*-3000
1.2	28.5	39.0	25.5	36.5	39.0	—	1.2	1 050	1 260	4.0	14.0	3.2	16.5	23	C163L125+*-3000
0.33	15.0	44.0	13.0	19.2	44.0	—	0.8	1 000	330	6.7	9.0	—	—	21	C163L334+0-4000
0.47	17.3	44.0	14.9	22.7	44.0	—	1.0	1 000	470	5.5	9.8	—	—	21	C163L474+0-4000
0.68	20.4	44.0	18.1	26.0	44.0	—	1.2	1 000	680	5.0	11.7	—	—	21	C163L684+0-4000
1.0	24.2	44.0	21.5	31.0	44.0	—	1.2	1 000	1 000	4.5	14.0	—	—	22	C163L105+0-4000
1.2	26.3	44.0	23.8	33.2	44.0	—	1.2	1 000	1 200	4.0	14.0	3.5	15.9	23	C163L125+*-4000
1.5	29.1	44.0	26.1	37.1	44.0	—	1.2	1 000	1 500	4.0	14.0	3.5	18.6	25	C163L155+*-4000
1.5	26.1	54.0	23.6	33.0	54.0	—	1.2	700	1 050	4.5	14.0	4.0	15.8	27	C163L155+*-5000
2.0	29.8	54.0	26.8	37.8	54.0	—	1.2	700	1 400	4.0	14.0	3.5	18.0	28	C163L205+*-5000
2.2	31.1	54.0	28.3	39.3	54.0	—	1.2	700	1 540	4.0	14.0	3.5	19.0	29	C163L225+*-5000
2.5	33.0	54.0	29.6	42.2	54.0	—	1.2	700	1 750	4.0	14.0	3.5	20.0	30	C163L255+*-5000
3.0	36.0	54.0	32.0	46.2	54.0	—	1.2	700	2 100	4.0	14.0	3.5	21.0	31	C163L305+*-5000
3.3	37.6	54.0	33.8	47.9	54.0	—	1.2	700	2 310	4.0	14.0	3.5	22.0	32	C163L335+*-5000
1.5	24.2	58.0	21.6	31.0	58.0	—	1.2	600	900	5.0	14.0	4.5	—	28	C163L155+0-6000
2.0	27.6	58.0	25.3	34.7	58.0	—	1.2	600	1 200	4.5	14.0	4.0	17.5	29	C163L205+*-6000
2.2	28.9	58.0	25.9	36.9	58.0	—	1.2	600	1 320	4.0	14.0	3.5	18.0	29	C163L225+*-6000
2.5	30.6	58.0	27.8	38.8	58.0	—	1.2	600	1 500	4.0	14.0	3.5	19.0	30	C163L255+*-6000
3.0	33.4	58.0	29.9	42.5	58.0	—	1.2	600	1 800	4.0	14.0	3.5	20.0	31	C163L305+*-6000
3.3	34.9	58.0	31.6	44.2	58.0	—	1.2	600	1 980	4.0	14.0	3.5	21.0	32	C163L335+*-6000
4.0	38.2	58.0	34.4	48.5	58.0	—	1.2	600	2 400	4.0	14.0	3.5	22.0	33	C163L405+*-6000



■ 技术参数 Technical data(mm)

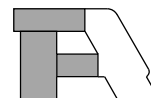
1 500Vdc(650Vac)															
C _N (μF)	Axial		Axial flat			b	d	dV/dt (V/μs)	İ (A)	2 Pins		4 Pins		L _s (nH)	Part number
	D max	L max	T max	H max	L max					ESR @100kHz (mΩ)	I _{max} (A)	ESR @100kHz (mΩ)	I _{max} (A)		
0.033	10.5	29.0	6.5	12.5	29.0	—	0.8	2 300	76	28.0	3.3	—	—	15	C164M333+0-1000
0.047	11.8	29.0	7.8	13.9	29.0	—	0.8	2 300	108	21.1	4.2	—	—	15	C164M473+0-1000
0.068	13.5	29.0	9.5	15.6	29.0	—	0.8	2 300	156	15.0	5.5	—	—	16	C164M683+0-1000
0.1	15.7	29.0	11.7	17.8	29.0	—	1.0	2 300	230	10.4	7.2	—	—	16	C164M104+0-1000
0.068	12.2	34.0	8.2	14.3	34.0	—	0.8	1 750	119	16.0	4.1	—	—	17	C164M683+0-2000
0.1	14.1	34.0	10.1	16.2	34.0	—	0.8	1 750	175	12.0	5.8	—	—	17	C164M104+0-2000
0.15	16.6	34.0	11.9	19.6	34.0	—	1.0	1 750	263	8.5	6.5	—	—	17	C164M154+0-2000
0.22	19.5	34.0	14.8	22.4	34.0	—	1.0	1 750	385	6.7	8.4	—	—	19	C164M224+0-2000
0.33	23.3	34.0	18.5	26.2	34.0	—	1.2	1 750	578	4.5	11.1	—	—	19	C164M334+0-2000
0.1	13.0	39.0	9.0	15.1	39.0	—	0.8	1 450	145	10.0	6.0	—	—	19	C164M104+0-3000
0.22	17.8	39.0	13.1	20.7	39.0	—	1.0	1 450	319	7.5	8.0	—	—	19	C164M224+0-3000
0.33	21.2	39.0	16.4	24.1	39.0	—	1.2	1 450	479	6.3	10.4	—	—	20	C164M334+0-3000
0.47	24.8	39.0	20.0	27.7	39.0	—	1.2	1 450	682	5.0	12.5	—	—	21	C164M474+0-3000
0.68	29.3	39.0	23.7	33.0	39.0	—	1.2	1 450	986	4.3	13.0	—	—	23	C164M684+0-3000
0.22	16.4	44.0	11.8	19.4	44.0	—	1.0	1 200	264	8.5	8.0	—	—	21	C164M224+0-4000
0.33	19.5	44.0	14.8	22.4	44.0	—	1.0	1 200	396	6.5	10.2	—	—	22	C164M334+0-4000
0.47	22.8	44.0	18.0	25.7	44.0	—	1.2	1 200	564	5.2	12.7	—	—	22	C164M474+0-4000
0.68	26.9	44.0	21.3	30.6	44.0	—	1.2	1 200	816	4.5	14.0	4.0	16.3	24	C164M684+*-4000
1.0	32.1	44.0	25.7	36.5	44.0	—	1.2	1 200	1 200	4.0	14.0	3.5	17.0	26	C164M105+*-4000
1.0	27.7	54.0	22.1	31.3	54.0	—	1.2	850	850	4.5	14.0	4.0	16.5	28	C164M105+*-5000
1.2	30.1	54.0	24.5	33.7	54.0	—	1.2	850	1 020	4.3	14.0	3.8	17.5	29	C164M125+*-5000
1.5	33.4	54.0	26.9	37.7	54.0	—	1.2	850	1 275	4.0	14.0	3.5	19.0	30	C164M155+*-5000
2.0	38.2	54.0	30.9	43.3	54.0	—	1.2	850	1 700	4.0	14.0	3.5	20.5	33	C164M205+*-5000
2.2	40.0	54.0	31.9	45.8	54.0	—	1.2	850	1 870	4.0	14.0	3.5	21.5	34	C164M225+*-5000
1.0	26.4	58.0	20.8	30.0	58.0	—	1.2	750	750	5.0	14.0	4.5	16.0	28	C164M105+*-6000
1.2	28.7	58.0	23.1	32.3	58.0	—	1.2	750	900	4.5	14.0	4.0	17.0	29	C164M125+*-6000
1.5	31.8	58.0	25.3	36.1	58.0	—	1.2	750	1 125	4.3	14.0	3.8	18.0	30	C164M155+*-6000
2.0	36.4	58.0	29.8	40.6	58.0	—	1.2	750	1 500	4.0	14.0	3.5	19.0	32	C164M205+*-6000
2.2	38.0	58.0	30.7	43.1	58.0	—	1.2	750	1 650	4.0	14.0	3.5	20.0	33	C164M225+*-6000
2.5	40.4	58.0	32.3	46.2	58.0	—	1.2	750	1 875	4.0	14.0	3.5	21.0	34	C164M255+*-6000



C16

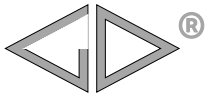
■ 技术参数 Technical data(mm)

1 600Vdc / 1 700Vdc (675Vac) #															
C _N (μF)	Axial		Axial flat			b	d	dV/dt (V/μs)	î (A)	2 Pins		4 Pins		L _s (nH)	Part number
	D max	L max	T max	H max	L max					ESR @100kHz (mΩ)	I _{max} (A)	ESR @100kHz (mΩ)	I _{max} (A)		
0.033	11.0	29.0	7.0	13.1	29.0	—	0.8	2 500	83	25.6	4.1	—	—	15	C163C333+0-1000
0.047	12.5	29.0	8.5	14.6	29.0	—	0.8	2 500	118	18.5	5.8	—	—	15	C163C473+0-1000
0.068	14.4	29.0	10.4	16.5	29.0	—	0.8	2 500	170	13.2	6.1	—	—	16	C163C683+0-1000
0.1	16.8	29.0	12.1	19.8	29.0	—	1.0	2 500	250	9.2	7.8	—	—	16	C163C104+0-1000
0.068	12.9	34.0	8.9	15.0	34.0	—	0.8	1 900	129	17.9	5.3	—	—	17	C163C683+0-2000
0.1	15.0	34.0	10.4	18.0	34.0	—	1.0	1 900	190	12.5	7.5	—	—	17	C163C104+0-2000
0.15	17.7	34.0	13.0	20.7	34.0	—	1.0	1 900	285	8.5	8.6	—	—	18	C163C154+0-2000
0.22	20.9	34.0	16.1	23.8	34.0	—	1.2	1 900	418	6.0	10.0	—	—	18	C163C224+0-2000
0.33	25.0	34.0	18.7	29.5	34.0	—	1.2	1 900	627	5.5	12.5	—	—	20	C163C334+0-2000
0.1	13.8	39.0	9.8	15.9	39.0	—	0.8	1 650	165	16.1	6.2	—	—	19	C163C104+0-3000
0.22	19.0	39.0	14.3	21.9	39.0	—	1.0	1 650	363	7.6	9.5	—	—	20	C163C224+0-3000
0.33	22.7	39.0	17.9	25.6	39.0	—	1.2	1 650	545	5.2	12.4	—	—	20	C163C334+0-3000
0.47	26.6	39.0	21.0	30.2	39.0	—	1.2	1 650	776	4.5	14.0	—	—	22	C163C474+0-3000
0.68	31.5	39.0	25.1	35.9	39.0	—	1.2	1 650	1 122	4.0	14.0	—	17.3	24	C163C684+0-3000
0.22	17.5	44.0	12.8	20.5	44.0	—	1.0	1 400	308	9.5	8.6	—	—	21	C163C224+0-4000
0.33	20.9	44.0	16.1	23.8	44.0	—	1.2	1 400	462	6.5	11.0	—	—	21	C163C334+0-4000
0.47	24.4	44.0	19.6	27.3	44.0	—	1.2	1 400	658	5.0	13.2	—	—	22	C163C474+0-4000
0.68	28.9	44.0	23.2	32.5	44.0	—	1.2	1 400	952	4.5	14.0	4.0	16.0	24	C163C684+*-4000
1.0	34.5	44.0	24.5	43.1	44.0	—	1.2	1 400	1 400	4.0	14.0	3.5	18.0	27	C163C105+*-4000
1.5	41.8	44.0	31.4	49.2	44.0	—	1.2	1 400	2 100	4.0	14.0	3.5	21.0	31	C163C155+*-4000
1.0	29.7	54.0	24.1	33.3	54.0	—	1.2	1 000	1 000	4.5	14.0	4.0	16.5	28	C163C105+*-5000
1.2	32.3	54.0	25.9	36.7	54.0	—	1.2	1 000	1 200	4.3	14.0	3.8	18.0	30	C163C125+*-5000
1.5	35.9	54.0	28.6	40.9	54.0	—	1.2	1 000	1 500	4.0	14.0	3.5	20.0	31	C163C155+*-5000
2.0	41.1	54.0	32.9	46.9	54.0	—	1.2	1 000	2 000	4.0	14.0	3.5	21.5	34	C163C205+*-5000
2.2	43.0	54.0	34.8	48.7	54.0	—	1.2	1 000	2 200	4.0	14.0	3.5	22.5	35	C163C225+*-5000
1.0	28.3	58.0	22.7	31.9	58.0	—	1.2	780	780	5.0	14.0	4.5	16.5	29	C163C105+*-6000
1.2	30.7	58.0	22.9	36.8	58.0	—	1.2	780	936	4.5	14.0	4.0	17.0	30	C163C125+*-6000
1.5	34.1	58.0	25.4	40.9	58.0	—	1.2	780	1 170	4.2	14.0	3.7	19.0	31	C163C155+*-6000
2.0	39.0	58.0	29.5	46.5	58.0	—	1.2	780	1 560	4.0	14.0	3.6	21.0	34	C163C205+*-6000
2.2	40.8	58.0	30.5	49.1	58.0	—	1.2	780	1 716	4.0	14.0	3.5	22.0	35	C163C225+*-6000
2.5	43.4	58.0	33.0	51.6	58.0	—	1.2	780	1 950	4.0	14.0	3.5	22.5	36	C163C255+*-6000



■ 技术参数 Technical data(mm)

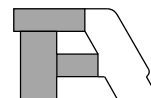
2 000Vdc(700Vac)															
C _N (μF)	Axial		Axial flat			b	d	dV/dt (V/μs)	î (A)	2 Pins		4 Pins		L _s (nH)	Part number
	D max	L max	T max	H max	L max					ESR @100kHz (mΩ)	I _{max} (A)	ESR @100kHz (mΩ)	I _{max} (A)		
0.022	10.2	29.0	6.7	12.8	29.0	—	0.8	2 750	61	32.8	3.2	—	—	15	C163D223+0-1000
0.033	11.6	29.0	8.2	14.3	29.0	—	0.8	2 750	91	22.8	4.0	—	—	15	C163D333+0-1000
0.047	13.2	29.0	9.9	16.0	29.0	—	0.8	2 750	129	16.5	6.0	—	—	16	C163D473+0-1000
0.068	15.2	29.0	12.1	18.2	29.0	—	1.0	2 750	187	11.7	7.0	—	—	15	C163D683+0-1000
0.047	12.0	34.0	8.6	14.7	34.0	—	0.8	2 100	99	22.5	5.1	—	—	17	C163D473+0-2000
0.068	13.7	34.0	10.4	16.5	34.0	—	0.8	2 100	143	16.0	6.7	—	—	17	C163D683+0-2000
0.1	15.9	34.0	12.1	19.8	34.0	—	1.0	2 100	210	11.1	8.4	—	—	17	C163D104+0-2000
0.15	18.8	34.0	15.2	22.9	34.0	—	1.0	2 100	315	7.6	10.1	—	—	18	C163D154+0-2000
0.22	22.2	34.0	18.8	26.5	34.0	—	1.2	2 100	462	5.5	11.0	—	—	19	C163D224+0-2000
0.068	12.6	39.0	9.3	15.4	39.0	—	0.8	1 850	126	20.6	5.8	—	—	19	C163D683+0-3000
0.1	14.6	39.0	11.4	17.5	39.0	—	0.8	1 850	185	14.3	6.8	—	—	19	C163D104+0-3000
0.15	17.2	39.0	13.5	21.1	39.0	—	1.0	1 850	278	9.8	8.5	—	—	19	C163D154+0-3000
0.22	20.2	39.0	16.7	24.3	39.0	—	1.2	1 850	407	6.8	10.7	—	—	19	C163D224+0-3000
0.33	24.2	39.0	20.9	28.5	39.0	—	1.2	1 850	611	4.6	14.0	—	—	21	C163D334+0-3000
0.39	26.0	39.0	22.9	30.5	39.0	—	1.2	1 850	721	4.3	14.0	—	—	22	C163D394+0-3000
0.47	28.4	39.0	24.5	33.7	39.0	—	1.2	1 850	870	4.0	14.0	3.5	16.3	23	C163D474+*-3000
0.1	13.6	44.0	10.3	16.4	44.0	—	1.0	1 650	165	18.0	6.4	—	—	21	C163D104+0-4000
0.15	15.9	44.0	12.1	19.8	44.0	—	1.0	1 650	248	12.3	8.9	—	—	20	C163D154+0-4000
0.22	18.7	44.0	15.0	22.7	44.0	—	1.0	1 650	363	8.5	10.1	—	—	21	C163D224+0-4000
0.33	22.2	44.0	18.8	26.5	44.0	—	1.2	1 650	545	5.8	13.0	—	—	22	C163D334+0-4000
0.47	26.0	44.0	22.1	31.3	44.0	—	1.2	1 650	776	4.1	14.0	3.6	15.1	23	C163D474+*-4000
0.68	31.4	44.0	25.6	37.9	44.0	—	1.2	1 650	1 122	4.0	14.0	3.5	18.0	26	C163D684+*-4000
0.68	26.6	54.0	22.6	31.9	54.0	—	1.2	1 200	816	4.5	14.0	4.0	16.5	27	C163D684+*-5000
1.0	31.7	54.0	27.3	38.1	54.0	—	1.2	1 200	1 200	4.3	14.0	3.8	18.0	29	C163D105+*-5000
1.3	35.8	54.0	30.8	43.2	54.0	—	1.2	1 200	1 560	4.0	14.0	3.5	18.5	31	C163D135+*-5000
0.68	26.9	58.0	21.3	30.5	58.0	—	1.2	850	578	5.0	14.0	4.5	15.8	28	C163D684+*-6000
1.0	32.1	58.0	24.2	38.1	58.0	—	1.2	850	850	4.5	14.0	4.0	17.5	30	C163D105+*-6000
1.2	34.9	58.0	26.9	40.9	58.0	—	1.2	850	1 020	4.0	14.0	3.5	18.0	32	C163D125+*-6000
1.3	36.2	58.0	28.2	42.2	58.0	—	1.2	850	1 105	4.0	14.0	3.5	18.5	32	C163D135+*-6000
1.5	38.8	58.0	29.9	45.4	58.0	—	1.2	850	1 275	4.0	14.0	3.5	20.0	34	C163D155+*-6000



C16

■ 技术参数 Technical data(mm)

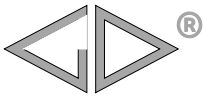
2 500Vdc(725Vac)															
C _N (μF)	Axial		Axial flat			b	d	dV/dt (V/μs)	î (A)	2 Pins		4 Pins		L _s (nH)	Part number
	D max	L max	T max	H max	L max					ESR @100kHz (mΩ)	I _{max} (A)	ESR @100kHz (mΩ)	I _{max} (A)		
0.01	9.9	29.0	5.9	12.0	29.0	—	0.8	3 900	117	53.5	2.3	—	—	15	C163E103+0-1000
0.015	11.1	29.0	7.1	13.2	29.0	—	0.8	3 900	176	37.6	2.9	—	—	15	C163E153+0-1000
0.022	12.6	29.0	8.6	14.7	29.0	—	0.8	3 900	257	26.7	3.5	—	—	15	C163E223+0-1000
0.033	14.7	29.0	10.7	16.7	29.0	—	0.8	3 900	386	18.4	4.8	—	—	16	C163E333+0-1000
0.033	13.2	34.0	9.2	15.3	34.0	—	0.8	2 600	257	25.4	3.9	—	—	17	C163E333+0-2000
0.047	15.1	34.0	11.1	17.2	34.0	—	1.0	2 600	367	18.3	5.3	—	—	17	C163E473+0-2000
0.068	17.5	34.0	12.8	20.4	34.0	—	1.0	2 600	530	13.0	7.0	—	—	18	C163E683+0-2000
0.1	20.5	34.0	15.8	23.4	34.0	—	1.2	2 600	780	9.0	8.6	—	—	18	C163E104+0-2000
0.15	24.5	34.0	19.7	27.3	34.0	—	1.2	2 600	1 170	6.1	10.5	—	—	20	C163E154+0-2000
0.082	17.3	39.0	12.6	20.2	39.0	—	1.0	2 100	517	14.2	5.1	—	—	19	C163E823+0-3000
0.1	18.7	39.0	14.0	21.7	39.0	—	1.0	2 100	630	11.7	7.1	—	—	20	C163E104+0-3000
0.15	22.3	39.0	17.5	25.2	39.0	—	1.2	2 100	945	8.0	7.5	—	—	20	C163E154+0-3000
0.22	26.4	39.0	20.8	30.0	39.0	—	1.2	2 100	1 386	5.6	11.0	—	—	22	C163E224+0-3000
0.33	31.7	39.0	25.3	36.0	39.0	—	1.2	2 100	2 079	4.0	14.0	—	—	25	C163E334+0-3000
0.47	37.3	39.0	30.0	42.4	39.0	—	1.2	2 100	2 961	4.0	14.0	3.5	16.0	28	C163E474+*-3000
0.1	17.3	44.0	12.7	20.3	44.0	—	1.0	1 950	585	14.9	6.8	—	—	21	C163E104+0-4000
0.15	20.5	44.0	15.8	23.4	44.0	—	1.2	1 950	878	10.1	9.2	—	—	21	C163E154+0-4000
0.22	24.2	44.0	19.5	27.1	44.0	—	1.2	1 950	1 287	7.0	10.4	—	—	22	C163E224+0-4000
0.33	29.1	44.0	23.4	32.7	44.0	—	1.2	1 950	1 931	4.8	14.0	—	—	25	C163E334+0-4000
0.47	34.2	44.0	27.7	38.5	44.0	—	1.2	1 950	2 750	4.0	14.0	3.5	17.0	27	C163E474+*-4000
0.68	40.6	44.0	32.4	46.4	44.0	—	1.2	1 950	3 978	4.0	14.0	3.5	17.5	31	C163E684+*-4000
0.33	25.1	54.0	20.3	28.0	54.0	—	1.2	1 450	1 436	6.9	11.7	—	—	27	C163E334+0-5000
0.47	29.5	54.0	23.8	33.1	54.0	—	1.2	1 450	2 045	4.9	14.0	4.4	16.5	28	C163E474+*-5000
0.68	34.9	54.0	28.4	39.2	54.0	—	1.2	1 450	2 958	4.0	14.0	3.5	17.0	31	C163E684+*-5000
0.82	38.1	54.0	30.8	43.1	54.0	—	1.2	1 450	3 567	4.0	14.0	3.5	17.5	33	C163E824+*-5000
0.33	24.0	58.0	19.2	26.8	58.0	—	1.2	925	916	8.5	10.6	—	—	27	C163E334+0-6000
0.47	28.1	58.0	22.5	31.7	58.0	—	1.2	925	1 304	6.0	13.2	—	—	29	C163E474+0-6000
0.68	33.2	58.0	26.8	37.6	58.0	—	1.2	925	1 887	4.2	14.0	3.7	16.5	31	C163E684+*-6000
0.82	36.2	58.0	29.7	40.5	58.0	—	1.2	925	2 276	4.0	14.0	3.5	17.0	32	C163E824+*-6000
1.0	39.7	58.0	31.6	45.6	58.0	—	1.2	925	2 775	4.0	14.0	3.5	18.0	34	C163E105+*-6000



■ 技术参数 Technical data(mm)

3 000Vdc(75Vac)															
C _N (μF)	Axial		Axial flat			b	d	dV/dt (V/μs)	î (A)	2 Pins		4 Pins		L _s (nH)	Part number
	D max	L max	T max	H max	L max					ESR @100kHz (mΩ)	I _{max} (A)	ESR @100kHz (mΩ)	I _{max} (A)		
0.0068	10.1	29.0	6.1	12.2	29.0	—	0.8	4 800	33	65.1	2.0	—	—	15	C164Q682+0-1000
0.010	11.2	29.0	7.2	13.3	29.0	—	0.8	4 800	48	46.7	2.5	—	—	15	C164Q103+0-1000
0.015	12.8	29.0	8.8	14.9	29.0	—	0.8	4 800	72	32.6	3.1	—	—	15	C164Q153+0-1000
0.010	10.4	34.0	6.4	12.5	34.0	—	0.8	3 500	35	64.7	2.2	—	—	17	C164Q103+0-2000
0.015	11.7	34.0	7.7	13.8	34.0	—	0.8	3 500	53	45.3	2.7	—	—	17	C164Q153+0-2000
0.022	13.3	34.0	9.3	15.4	34.0	—	0.8	3 500	77	32.0	3.3	—	—	17	C164Q223+0-2000
0.033	15.4	34.0	11.4	17.5	34.0	—	1.0	3 500	116	22.1	4.1	—	—	17	C164Q333+0-2000
0.047	17.7	34.0	13.0	20.6	34.0	—	1.0	3 500	165	15.8	5.5	—	—	18	C164Q473+0-2000
0.068	20.6	34.0	15.8	23.5	34.0	—	1.2	3 500	238	11.2	7.3	—	—	18	C164Q683+0-2000
0.047	16.2	39.0	11.6	19.2	39.0	—	1.0	2 500	118	20.8	4.5	—	—	19	C164Q473+0-3000
0.068	18.8	39.0	14.1	21.7	39.0	—	1.0	2 500	170	14.7	6.0	—	—	20	C164Q683+0-3000
0.100	22.1	39.0	17.3	25.0	39.0	—	1.2	2 500	250	10.2	7.5	—	—	20	C164Q104+0-3000
0.15	26.4	39.0	20.8	30.0	39.0	—	1.2	2 500	375	7.0	9.3	—	—	22	C164Q154+0-3000
0.22	31.3	39.0	24.9	35.7	39.0	—	1.2	2 500	550	4.9	12.3	—	—	24	C164Q224+0-3000
0.047	15.1	44.0	10.5	18.1	44.0	—	1.0	2 100	99	26.7	5.1	—	—	20	C164Q473+0-4000
0.068	17.4	44.0	12.7	20.4	44.0	—	1.0	2 100	143	18.8	6.3	—	—	21	C164Q683+0-4000
0.10	20.4	44.0	15.7	23.3	44.0	—	1.2	2 100	210	13.1	7.9	—	—	21	C164Q104+0-4000
0.15	24.3	44.0	19.5	27.1	44.0	—	1.2	2 100	315	8.9	10.2	—	—	22	C164Q154+0-4000
0.22	28.7	44.0	23.1	32.4	44.0	—	1.2	2 100	462	6.1	13.2	—	—	24	C164Q224+0-4000
0.22	24.9	54.0	20.1	27.8	54.0	—	1.2	1 650	363	9.0	11.0	—	—	26	C164Q224+0-5000
0.33	29.8	54.0	24.2	33.4	54.0	—	1.2	1 650	545	6.1	14.0	5.6	16.5	28	C164Q334+*-5000
0.47	35.0	54.0	27.8	40.2	54.0	—	1.2	1 650	776	4.4	14.0	4.0	17.5	31	C164Q474+*-5000
0.22	23.8	58.0	19.0	26.6	58.0	—	1.2	1 275	281	11.1	11.0	—	—	27	C164Q224+0-6000
0.33	28.4	58.0	22.8	32.1	58.0	—	1.2	1 275	421	7.5	14.0	—	—	29	C164Q334+0-6000
0.47	33.3	58.0	26.9	37.7	58.0	—	1.2	1 275	599	5.4	14.0	5.0	16.0	31	C164Q474+*-6000
0.56	36.1	58.0	28.9	41.3	58.0	—	1.2	1 275	714	4.5	14.0	4.0	17.0	32	C164Q564+*-6000
0.60	37.3	58.0	30.0	42.4	58.0	—	1.2	1 275	765	4.3	14.0	3.8	18.0	33	C164Q604+*-6000

- 备注 Note: 1. “+”表示容量偏差。 “+”=capacitance tolerance code, J=±5%, K=±10%。
 2. “-”表示产品的形状: “0”表示圆形, “A”表示扁形。 “-”: “0”=Axial, “A”=Axial flat。
 3. “*”表示产品引出方式: “0”表示两引线, “*”表示四引线, b=10.0, “2”表示四引线, b=12.7。
 “*” : “0”=2Pins, “1”=10.0mm, “2”=12.7mm。
 4. “#”当额定电压为 630Vdc 时, 第 4~5 位为 2J; 当额定电压为 1700Vdc 时, 第 4~5 位为 7M。
 “#” : When the rated voltage is 630Vdc, the digit 4~5 is 2J; when the rated voltage is 1700Vdc, the digit 4-5 is 7M。
 5. “I_{max}”测试条件: 环境温度 70°C, 频率 100kHz, 外壳温度达到 85°C 下的有效值。
 “I_{max}” at 100kHz, θ_{amb}=70°C, θ_{case}=85°C。
 6. “ESR”、“L_s”均为典型值。 “ESR”, “L_s” are typical values。
 7. “L_s”的测试要求: 引线长度取产品直径 “D/2” 或厚度 “T/2” 的长度位置测试。
 “L_s” at “D/2” or “T/2” .



C3G

干式高压、高脉冲电流吸收电容器

Snubber capacitor for high voltage, high current pulses(Dry type)

外形图 Outline Drawing

Type1 插片式 Tabs type 阻燃塑料外壳 Inflamming plastic case	Type2 螺栓式 Bolt type 铝外壳 Aluminum case	Type3 螺孔式 Thread hole type 铝外壳 Aluminum case

特点

- 损耗小, 内部温升小
- 等效串联电阻小, 自感小, 能承受较大的纹波电流
- 有自愈特性
- 树脂填充

应用

- 高纹波电流直流滤波应用
- 高压脉冲, 高频应用

Features

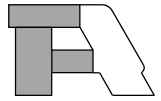
- Low loss and small inherent temperature rise
- Low ESR, Low L_s , can withstanding high r.m.s current
- Self-healing property
- Filled with resin

Applications

- High ripple current D.C. filtering
- For high pulse and high frequency application

安全认证 Safety Approvals

●		TUV Rheinland (德国)	EN 61071: 2007, EN 61881-1: 2011, 1 400Vdc ~ 4 000Vdc, 0.1μF~5.6μF, -40°C/85°C 证书号(Certificate No.): R 50332458
●		UL (美国)	UL 810 (construction only), max. 7200Vdc, 90°C 证书号(File No.): E256238, CCN: CZDS2



■ 技术要求 Specifications

引用标准 Reference Standard	GB/T 17702(IEC 61071)		
气候类别 Climatic Category	40/85/56		
工作温度范围(外壳) Operating temperature range(case)	-40°C~ 85°C		
额定电压 Rated Voltage (U_N)	1 400Vdc~ 4 000Vdc		
电容量偏差 Capacitance Tolerance	$\pm 5\%$ (J), $\pm 10\%$ (K)		
耐电压(两极间) Test voltage between terminals(U_{TT})	1.5 U_N (dc), (10s)		
耐电压(极壳间) Test voltage between case and terminal (U_{TC})	$U_N < 1\ 500$ Vdc, 3 000Vac(10s, 50Hz, 20°C $\pm 5^\circ$ C) $U_N \geq 1\ 500$ Vdc, ($\sqrt{2}U_N + 1\ 000$)Vac(10s, 50Hz, 20°C $\pm 5^\circ$ C)		
介质损耗角正切 Dielectric dissipation factor ($\tan\delta_d$)	2×10^{-4}		
绝缘电阻 Insulation Resistance ($IR \times C_N$)	$\geq 10\ 000$ s(20°C, 500Vdc, 1min)		
预期寿命 Expected lifetime	$\geq 100\ 000$ h @ $U_N, \theta_{hs}=70^\circ$ C		
最大电极扭矩 Max. Torque of terminals	M6: 5N·m	M8: 6N·m	M12: 8N·m
安装 Installation	端子形式 Terminal form	插片式 Tabs type	
		螺栓式 Bolt type	
		螺孔式 Thread hole type	
	安装方式 Fixed style	底部螺栓 Bottom-bolt	
		中部卡圈 Ring-clip in the middle of case	
最大安装扭矩 Max. Torque of Installation	塑料外壳 Plastic case	M8: 3N·m	
	铝外壳 Aluminum case	M8: 5N·m	M10: 7N·m M12: 10N·m

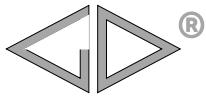
■ 产品编码说明 Part number system

15 位产品代码如下:

The 15 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	3	G												

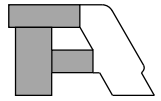
第 1~3 位	型号代码	Digit 1 to 3	Series code
	C3G		C3G
第 4~5 位	直流额定电压	Digit 4 to 5	D.C. rated voltage
	3M=1 400V 3D=2 000V 1N=2 400V		3M=1 400V 3D=2 000V 1N=2 400V
	3E=2 500V 3G=4 000V		3E=2 500V 3G=4 000V
第 6~8 位	标称容量	Digit 6 to 8	Rated capacitance value
	举例: 105=10 $\times 10^5$ pF=1.0 μ F		for example: 105=10 $\times 10^5$ pF=1.0 μ F
第 9 位	容量偏差	Digit 9	Capacitance tolerance
	J= $\pm 5\%$, K= $\pm 10\%$, M= $\pm 20\%$		J= $\pm 5\%$, K= $\pm 10\%$, M= $\pm 20\%$
第 10~15 位	内部特征码	Digit 10~15	Internal use



■ 技术参数 Technical data

C _N (μF)	U _N (Vdc)	U _{rms} (Vac)	dV/dt (V/μs)	\hat{I} (A)	\hat{I}_s (A)	I _{max} 100kHz@70°C (A)	ESR @100kHz (mΩ)	L _s (nH)	D (mm)	H (mm)	Part number	外形样式 Shape style
0.1	1400	1000	900	90	270	10	12.0	63	30	63	C3G3M104+*****	Type1
0.22	1400	1000	900	198	594	13	10.0	80	40	63	C3G3M224+*****	Type1
0.33	1400	1000	900	297	891	13	10.0	80	40	63	C3G3M334+*****	Type1
0.47	1400	1000	900	423	1269	13	10.0	80	50	63	C3G3M474+*****	Type1
0.68	1400	1000	900	612	1836	18	8.0	80	50	63	C3G3M684+*****	Type1
1.0	1400	1000	900	900	2700	18	8.0	80	50	63	C3G3M105+*****	Type1
0.47	2500	1485	1200	564	1692	13	15.0	150	40	95	C3G3E474+*****	Type1

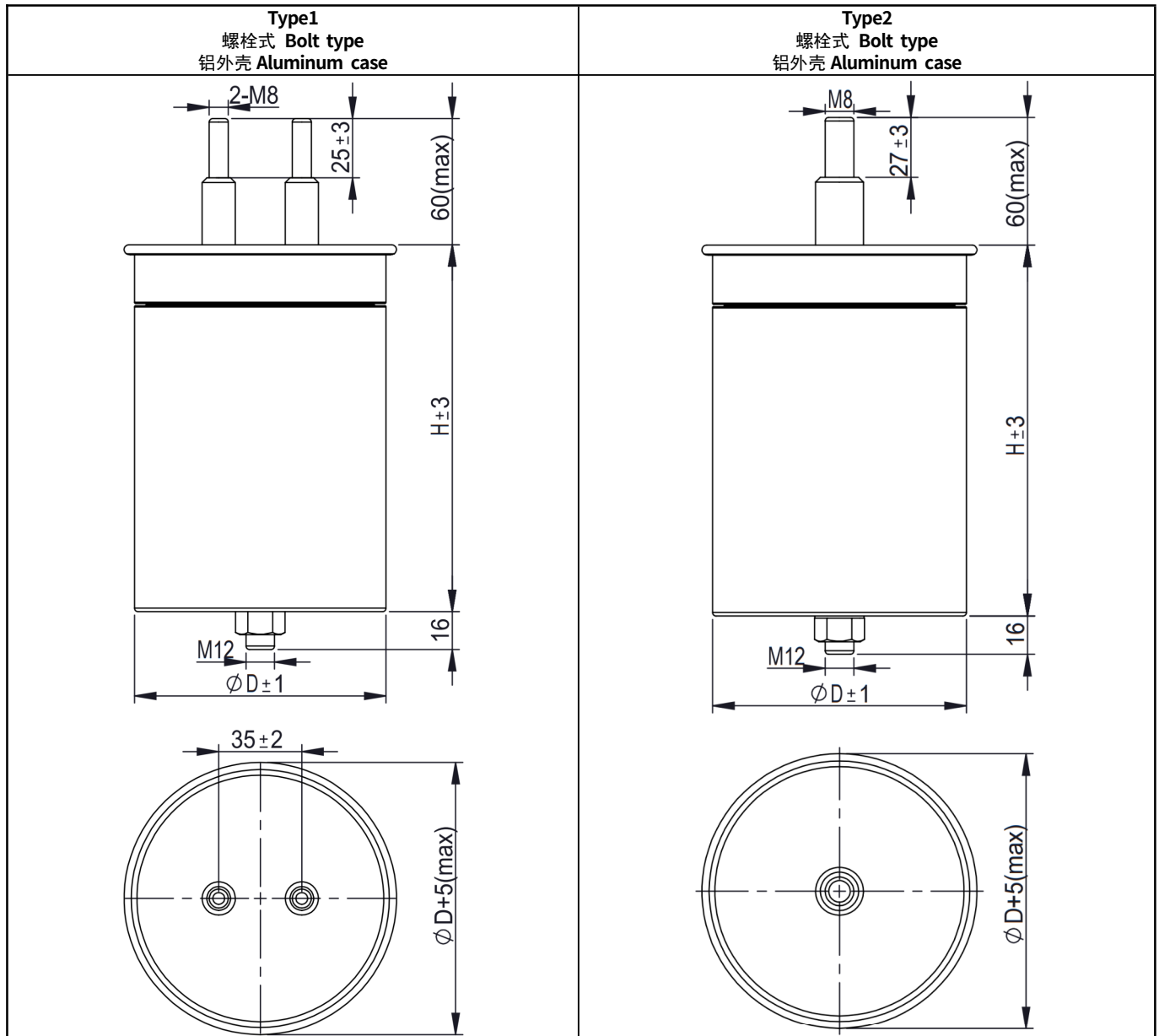
- 备注 Note: 1. “+” 表示容量偏差。 “+” =capacitance tolerance code, J=±5%, K=±10%, M=±20%.
2. “*****” 表示内部特征码。 “*****” = Internal use.
3. “I_{max}” 测试条件: 环境温度 70°C, 频率 100kHz, 外壳温度达到 85°C下的有效值。
“I_{max}” at 100kHz, θ_{amb}=70°C, θ_{case}=85°C.
4. “ESR”、“L_s” 均为典型值。“ESR”, “L_s” are typical values.
5. 其他容量, 尺寸系列可按用户需求商定。 Other values and dimensions is available on request.



油式高压、高脉冲电流吸收电容器

Snubber capacitor for high voltage, high current pulses (Oil-filled type)

外形图 Outline Drawing



特点

- 陶瓷端子
- 有自愈特性
- 油式
- 防爆设计, 更加安全

应用

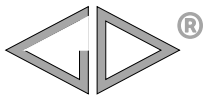
- 特别适用于缓冲器电路
- 高压脉冲, 高频应用

Features

- Ceramic lead-through
- Self-healing property
- Filled with oil
- Anti-explosion design, more safety

Applications

- Especially suitable for snubber circuits
- For high pulse and high frequency application



C3T

■ 技术要求 Specifications

引用标准 Reference Standard	GB/T 17702 (IEC 61071)	
气候类别 Climatic Category	40/85/56	
工作温度范围(外壳) Operating temperature range(case)	-40°C ~ 85°C	
额定电压 Rated Voltage (U _N)	1 400Vac ~ 3 500Vac	
电容量偏差 Capacitance Tolerance	±5%(J), ±10%(K)	
耐电压(两极间) Test voltage between terminals (U _{T-T})	2.15U _{rms} (ac), 10s or 3.05U _{rms} (dc), 10s	
耐电压(极壳间) Test voltage between case and terminal (U _{T-C})	U _N <1 500Vac, 3 000Vac(10s, 50Hz, 20°C±5°C) U _N ≥1 500Vac, ($\sqrt{2}$ U _N +1 000)Vac(10s, 50Hz, 20°C±5°C)	
介质损耗角正切 Dielectric dissipation factor (tanδ _d)	2×10 ⁻⁴	
绝缘电阻 Insulation Resistance (IR×C _N)	≥10 000s(20°C, 500Vdc,1min)	
预期寿命 Expected lifetime	≥100 000h @ U _N , θ _{hs} =70°C	
安装 Installation	端子形式 Terminal form	螺栓式 Bolt type
	安装方式 Fixed style	底部螺栓 Bottom-bolt
最大电极扭矩 Max. Torque of terminals	M8: 5N·m	
最大安装扭矩 Max. Torque of Installation	M12: 10N·m	

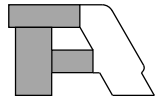
■ 产品编码说明 Part number system

15 位产品代码如下:

The 15 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	3	T												

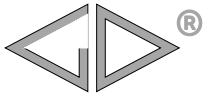
第 1~3 位	型号代码	Digit 1 to 3	Series code
	C3T		C3T
第 4~5 位	交流额定电压	Digit 4 to 5	A.C. rated voltage
	M3=1 400V D3=2 000V E3=2 500V		M3=1 400V D3=2 000V E3=2 500V
	Q6=3 200V R5=3 500V		Q6=3 200V R5=3 500V
第 6~8 位	标称容量	Digit 6 to 8	Rated capacitance value
	举例: 105=10×10 ⁵ pF=1.0μF		for example: 105=10×10 ⁵ pF=1.0μF
第 9 位	容量偏差	Digit 9	Capacitance tolerance
	J=±5%, K=±10%		J=±5%, K=±10%
第 10~15 位	内部特征码	Digit 10~15	Internal use



■ 技术参数 Technical data

C_N (μF)	U_N (Vdc)	U_{rms} (Vac)	dV/dt (V/ μs)	\hat{I} (A)	\hat{I}_s (A)	I_{max} 100kHz@70°C (A)	R_s @100kHz (m Ω)	L_s (nH)	D (mm)	H (mm)	Part number	外形样式 Shape style
4.7	1400	1000	100	470	1200	60	9.3	150	60	175	C3TM3475+*****	Type1
1.0	2000	1400	100	100	300	10	10.0	200	60	145	C3TD3105+*****	Type1
4.0	2500	1700	150	600	1800	40	5.0	200	86	280	C3TE3405+*****	Type1
2.0	3200	2200	1400	2800	7000	32	10.0	200	86	170	C3TQ6205+*****	Type1
0.68	3500	2400	2800	1900	4800	18	11.0	250	60	130	C3TR5684+*****	Type2

- 备注 Note:
- “+” 表示容量偏差。 “+” =capacitance tolerance code, J=±5%, K=±10%.
 - “*****” 表示内部特征码。 “*****” = Internal use.
 - “ I_{max} ” 为 100kHz、环境 70°C、 $\Delta\theta_{case}=15^\circ\text{C}$ 值。
“ I_{max} ” @100kHz, $\theta_{amb}=70^\circ\text{C}$, $\Delta\theta_{case}=15^\circ\text{C}$.
 - “ R_s ”、“ L_s ” 均为典型值。“ R_s ”, “ L_s ” are typical values.
 - 其他容量, 尺寸系列可按用户需求商定。 Other values and dimensions is available on request.



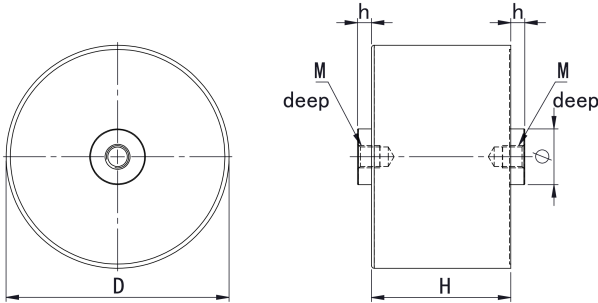
C3K

干式高压、高脉冲电流吸收电容器(轴向)

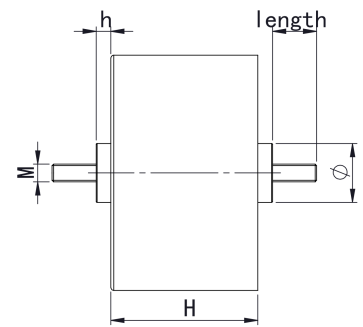
Snubber capacitor for high voltage, high current pulses (Dry type, Axial type)

外形图 Outline Drawing

螺孔式 Thread hole type



螺栓式 Bolt type



特点

- 损耗小, 内部温升小
- 等效串联电阻小, 自感小, 能承受较大的纹波电流
- 有自愈特性
- 阻燃塑料外壳封装, 树脂填充

应用

- GTO 中突波的吸收
- 高纹波电流直流滤波应用
- 高压脉冲, 高频应用

Features

- Low loss and small inherent temperature rise
- Low ESR, Low Ls, can withstand high r.m.s current
- Self-healing property
- Flame retardation plastic case, filled with resin

Applications

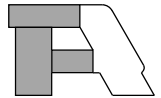
- Damping of voltage spikes on GTO-Thyristors
- High ripple current D.C. filtering
- For high pulse and high frequency application

安全认证 Safety Approvals

	UL (美国)	UL 810 (construction only), max. 7 200Vdc, 90°C 证书号 (File No.): E256238, CCN: CZDS2
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技术要求 Specifications

引用标准 Reference Standard	GB/T 17702 (IEC 61071)	
气候类别 Climatic Category	40/85/56	
工作温度范围(外壳) Operating temperature range(case)	-40°C ~ 85°C	
额定电压 Rated Voltage (U_N)	700Vdc ~ 9 000Vdc	
电容量偏差 Capacitance Tolerance	$\pm 5\%$ (J), $\pm 10\%$ (K)	
耐电压(两极间) Test voltage between terminals (U_{T-T})	1.5 U_N (10s)	
耐电压(极壳间) Test voltage between case and terminal (U_{T-C})	$U_N < 1 500Vdc$, 3 000Vac(10s, 50Hz, 20°C \pm 5°C) $U_N \geq 1 500Vdc$, ($\sqrt{2} U_N + 1 000$)Vac(10s, 50Hz, 20°C \pm 5°C)	
损耗角正切 Dissipation Factor	5×10^{-4} (1kHz, 20°C)	
绝缘电阻 Insulation Resistance ($IR \times C_N$)	$\geq 10 000s$ (20°C, 500Vdc, 1min)	
预期寿命 Expected lifetime	$\geq 100 000h$ @ U_N , $\theta_{hs} = 70^\circ C$	
最大电极扭矩 Max. Torque of terminals	M6: 5 N·m	M8: 6 N·m
安装位置 Installation	方向 position	任意方向 Any position
	引出端形式 Terminal form	螺孔式 Thread hole type 螺栓式 Bolt type



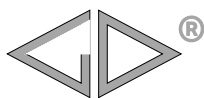
■ 产品编码说明 Part number system

15 位产品代码如下:

The 15 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	3	K												

第 1~3 位	型号代码	Digit 1 to 3	Series code
	C3K		C3K
第 4~5 位	直流额定电压	Digit 4 to 5	D.C. rated voltage
	1V=700V 2M=1 300V 7M=1 700V		1V=700V 2M=1 300V 7M=1 700V
	3D=2 000V 3E=2 500V 3G=4 000V		3D=2 000V 3E=2 500V 3G=4 000V
	6S=4 500V 7U=6 500V 4V=7 000V		6S=4 500V 7U=6 500V 4V=7 000V
	5V=7 500V 3K=8 000V 2X=9 000V		5V=7 500V 3K=8 000V 2X=9 000V
第 6~8 位	标称容量	Digit 6 to 8	Rated capacitance value
	举例: $105=10 \times 10^5 \text{pF}=1.0\mu\text{F}$		for example: $105=10 \times 10^5 \text{pF}=1.0\mu\text{F}$
第 9 位	容量偏差	Digit 9	Capacitance tolerance
	J=±5%, K=±10%, N=0 ~10%		J=±5%, K=±10%, N=0 ~10%
第 10~15 位	内部特征码	Digit 10~15	Internal use

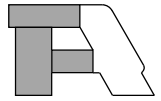


C3K

■ 技术参数 Technical data

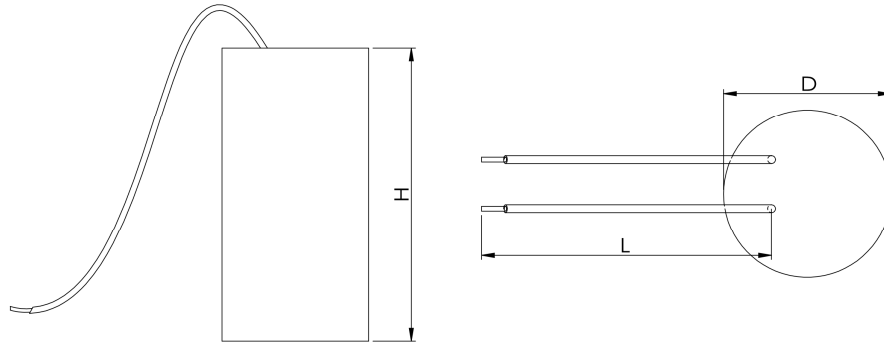
C _N (μF)	U _N (Vdc)	U _{rms} (Vac)	dV/dt (V/μs)	İ (A)	İ _s (A)	I _{max} 100kHz@70°C (A)	ESR @100kHz (mΩ)	L _s (nH)	D ±1.0 (mm)	H ±1.0 (mm)	H ±1.0 (mm)	Part number
2.0	3000	280	300	600	1800	35	1.8	50	90	67	6	C3K4Q205N*****
0.01	4000	800	8000	80	240	3	39	25	30	37	7.5	C3K3G103+*****
5.0	4500	500	200	1000	3500	36	2.7	100	90	216	5	C3K6S505+*****
0.5	4500	1500	500	250	750	42	1.2	50	90	56	3	C3K6S504+*****
0.55	7000	2500	400	270	710	41	1.8	50	90	116	7	C3K4V554+*****
0.25	7000	4000	1000	250	750	31	2.9	100	90	180	5	C3K4V254+*****
0.35	7000	4000	1000	350	1050	38	2.1	100	90	180	5	C3K4V354+*****
0.5	7000	4000	500	250	750	45	1.9	100	90	180	5	C3K4V504+*****
0.01	7500	2500	2000	20	60	4	50	100	30	98	3	C3K5V103+*****
0.33	8000	5000	1000	330	990	39	2.0	50	90	129	6.5	C3K3K334+*****
0.1	9000	4500	1500	150	450	26	5.0	100	90	149	6.5	C3K2X104+*****

- 备注 Note:
- “+”表示容量偏差。 “+” =capacitance tolerance code, J=±5%, K=±10%, N=0~10%.
 - “*****”表示内部特征码。 “*****” = Internal use.
 - “I_{max}”为100kHz、环境70°C、Δθ_{case}=15°C值。
“I_{max}” @100kHz, θ_{amb}=70°C, Δθ_{case}=15°C.
 - “ESR”、“L_s”均为典型值。“ESR”, “L_s” are typical values.
 - 其他容量,尺寸系列可按用户需求商定。 Other values and dimensions is available on request.



金属化聚丙烯膜脉冲电容器 Metallized polypropylene film pulse capacitor

■ 外形图 Outline Drawing



■ 特点

- 高能量密度
- 高工作电流
- 充放电寿命长
- 塑料壳，引线引出

■ 应用场合

- 除颤器
- 脉冲储能应用领域

■ Features

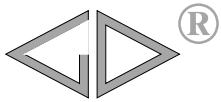
- High energy density
- High operating current
- Long charge-discharge lifetime
- Plastic case, available with insulated leads

■ Applications

- External defibrillator
- Pulse power applications

■ 技术要求 Specifications

引用标准 Reference standards	JB/T 8168
额定电压 Rated Voltage(U_N)	1 800Vdc~2 600Vdc
电容量范围 Capacitance Range	54 μ F ~182 μ F
电容量偏差 Capacitance Tolerance	$\pm 5\%$ (J), $\pm 10\%$ (K)
介质损耗角正切 Dielectric dissipation factor ($\tan\delta_d$)	2×10^{-4}
运行温度范围 (θ_{case}) Operating temperature range (θ_{case})	-20°C ~ 55°C
贮存温度范围 Storage temperature range	-40°C ~ 85°C
非周期冲击电压 Non-recurrent surge voltage(U_s)	1.1 U_N (50ms every time, 1 000 times during the whole life)
绝缘电阻 Insulation Resistance($IR \times C_N$)	$\geq 10\ 000s$ (20°C, 500V, 1min after charge test voltage)
耐电压(两极之间) Test voltage between terminals	1.1 U_N (60s, 20°C \pm 5°C)
外壳类型 Case	Plastic
预期寿命 Expected lifetime	10 000 pulses @ Max. U_N , 25°C, Rated operating current
失效率 Failure rate	100 FIT
引出端形式 Terminal form	UL 3239 insulated leads
安装形式 Fixed style	任意方向 Any Position



C3S

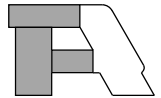
■ 产品编码说明 Part number code system

15 位产品代码如下:

The 15 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	3	S												

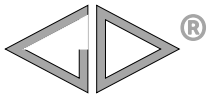
第 1~3 位	型号代码	Digit 1 to 3	Series code
	C3S		C3S
第 4~5 位	直流额定电压	Digit 4 to 5	D.C. rated voltage
	6M=1 800V 3D=2 000V 2N=2 200V		6M=1 800V 3D=2 000V 2N=2 200V
	1N=2 400V 3N=2 600V		1N=2 400V 3N=2 600V
第 6~8 位	标称容量	Digit 6 to 8	Rated capacitance value
	举例: 105=10×10 ⁵ pF=1.0μF		for example: 105=10×10 ⁵ pF=1.0μF
第 9 位	容量偏差	Digit 9	Capacitance tolerance
	J=±5%, K=±10%		J=±5%, K=±10%
第 10~15 位	内部特征码	Digit 10~15	Internal use



■ 技术参数 Technical data

U _N (Vdc)	C _N (μF)	Joules (J)	U _s (Vdc)	î (A)	î _s (A)	Dimension(mm)		Weight (kg)	Part number
						D±2	H±2		
1 800	115	186	1 980	540	1 620	50	118	0.33	C3S6M117-*****
	134	217	1 980	850	2 550	60	93	0.37	C3S6M137-*****
	182	295	1 980	850	2 550	60	118	0.44	C3S6M187-*****
2 000	93	186	2 200	520	1 560	50	118	0.33	C3S3D936-*****
	107	214	2 200	820	2 460	60	93	0.37	C3S3D107-*****
	147	294	2 200	820	2 460	60	118	0.44	C3S3D147-*****
2 200	76	184	2 420	500	1 500	50	118	0.33	C3S2N766-*****
	88	213	2 420	800	2 400	60	93	0.37	C3S2N886-*****
	120	290	2 420	800	2 400	60	118	0.44	C3S2N127-*****
2 400	64	184	2 640	490	1 470	50	118	0.33	C3S1N646-*****
	74	213	2 640	780	2 340	60	93	0.37	C3S1N746-*****
	100	288	2 640	770	2 310	60	118	0.44	C3S1N107-*****
2 600	54	183	2 860	480	1 440	50	118	0.33	C3S3N546-*****
	62	210	2 860	760	2 280	60	93	0.37	C3S3N626-*****
	85	287	2 860	760	2 280	60	118	0.44	C3S3N856-*****

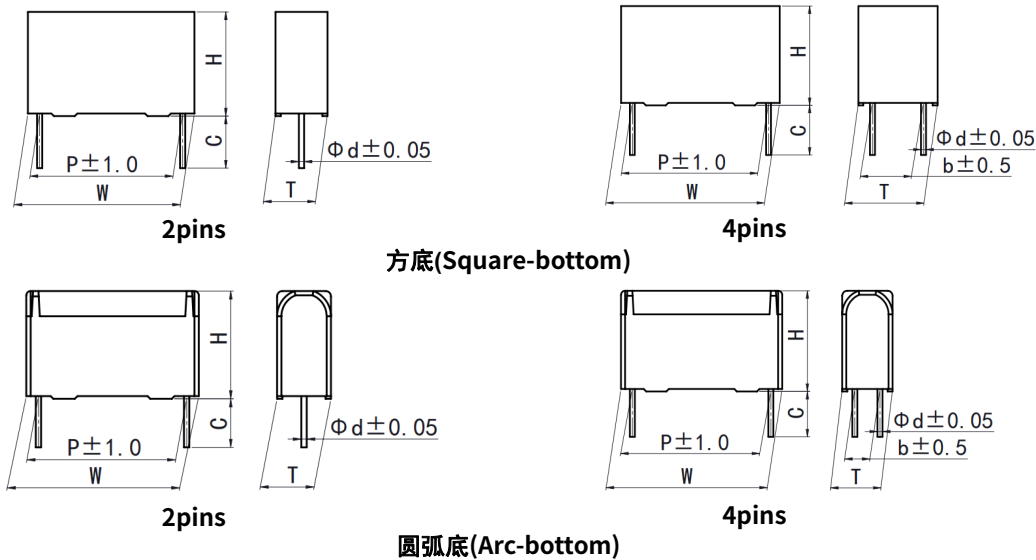
- 备注 Note: 1. “-” 表示容量偏差, J=±5%, K=±10%。 “-” =capacitance tolerance code , J=±5%, K=±10%。
 2. “*****” 表示内部特征码。 “*****” =Internal use.
 3. “U_s” 是指非周期冲击电压, 一般地寿命期间允许出现 1000 次, 每次持续 50ms。
 “U_s” means to Non-recurrent surge voltage. Generally 50ms every time, 1000 times during the whole lifetime.
 4. “î” 指室温工作下的最大峰值电流, 放电电流波形依据放电回路而定。
 “î” means the Max. peak operating current at room temperature, the discharge current waveform depends on the discharge circuit.
 5. “î_s” 指室温工作下的最大冲击电流。 “î_s” means the Max. Surge operating current at room temperature.
 6. 其它容量、尺寸系列可按用户需要定制。 Other values and dimensions available on request.



C6A

交流滤波电容器 (PCB) AC filter Capacitor for PCB

外形图 Outline Drawing



特点

- 自愈
- 金属化聚丙烯膜结构
- 适用于小功率交流输出滤波电路, 如 UPS、太阳能光伏 DC/AC 逆变器中的 LCL 滤波

Features

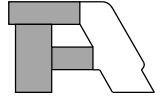
- Self-healing
- Metallized polypropylene film structure
- Suitable for small power AC output filter, i.e. UPS, Solar Photovoltaic DC/AC inverter with LCL filter

安全认证 Safety Approvals

●		TUV Rheinland (德国)	EN 61071: 2007, EN 61881-1: 2011, U_{rms} : 180Vac ~ 500Vac, U_N : 250Vac ~ 700Vac, 0.22 μ F ~ 60 μ F, -40°C/85°C 证书号 (Certificate No.): R 50266136
●		UL/CUL (美国/加拿大)	UL 810, CSA C22.2.No190, Construction Only, Max. 660Vac, 90°C 证书号 (File No.): E256238, CCN: CZDS2/8

技术要求 Specifications

引用标准 Reference Standard	GB/T 17702 (IEC 61071)			
气候类别 Climatic Category	40/85/56			
工作温度 (外壳温度) Operating Temperature Range (Case)	-40°C ~ 105°C $\theta_{hs} = +85^\circ\text{C} \sim +105^\circ\text{C}$: decreasing factor 1.5% per °C for U_{rms}			
额定均方根电压 Rated RMS Voltage (U_{rms})	180Vac	250Vac	300Vac	350Vac
额定交流电压 Rated a.c. Voltage (U_N)	250Vac	350Vac	425Vac	480Vac
最大连续直流电压 Maximum continuous DC voltage	300Vdc	475Vdc	560Vdc	600Vdc
电容量范围 Capacitance Range	4.0 μ F ~ 60.0 μ F	1.0 μ F ~ 40.0 μ F	1.0 μ F ~ 28.0 μ F	0.33 μ F ~ 27.0 μ F
电容量偏差 Capacitance Tolerance	$\pm 5\%$ (J), $\pm 10\%$ (K)			
耐电压 Voltage Proof	引线之间 Between Terminals:	1.5 U_N (Vac) (10s)		
	极壳之间 Between Terminals To Case:	3 000 Vac (10s)		
绝缘电阻 Insulation Resistance ($IR \times C_N$)	$\geq 3\ 000\text{s}$ (20°C, 100Vdc, 1min)			
损耗角正切 Dissipation Factor	$\leq 20 \times 10^{-4}$ (20°C, 1kHz) (Typical value, 15×10^{-4})			
注: 若用于户外或长期湿度较大场合, 建议选用防潮设计。 For outdoor or severe humidity condition application, recommend to use THB version.				



■ 产品编码说明 Part number system

■ 15 位产品代码如下:

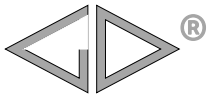
The 15 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	6	A												

第 1~3 位	型号代码	Digit 1 to 3	Series code
	C6A		C6A
第 4~5 位	额定均方根电压	Digit 4 to 5	Rated RMS voltage
	L4=180V E2=250V		L4=180V E2=250V
	Q1=300V R2=350V		Q1=300V R2=350V
第 6~8 位	标称容量	Digit 6 to 8	Rated capacitance value
	举例: 156=15×10 ⁶ pF=15.0μF		for example: 156=15×10 ⁶ pF=15.0μF
第 9 位	容量偏差	Digit 9	Capacitance tolerance
	J=±5%, K=±10%		J=±5%, K=±10%
第 10 位	引线脚距 P	Digit 10	Pitch
	B=27.5mm F=37.5mm M=52.5mm		B=27.5mm F=37.5mm M=52.5mm
第 11 位	内部特征码	Digit 11	Internal use
第 12~15 位	引线加工和包装代码	Digit 12 to 15	Lead form and packaging code

■ Table 1 引线加工和包装代码 lead form and packaging code

第 12 位 Digit 12		第 13 位和第 14 位 Digit 13 and Digit 14		第 15 位 Digit 15	
代码 Code	说明 explanation	代码 Code	说明 explanation	代码 Code	说明 explanation
0	2 引线 Two pins	55	引线长度 5.5mm Lead length 5.5mm	0	引线长度偏差±1.0mm 或标准长度 Length tolerance ±1.0mm Or standard length
1	4 引线 Four pins b=10.0mm				
2	4 引线 Four pins b=12.7mm				
3	4 引线 Four pins b=20.0mm				
A	4 引线 Four pins b=20.3mm				
B	4 引线 Four pins b=10.2mm				



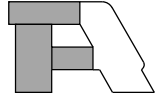
C6A

■ 技术参数 Technical data(mm)

U _{rms} =180Vac, U _N =250Vac, U _{NDC} =300Vdc													
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±1.0	b ±0.5	Pins	d ±0.05	L _s (nH)	ESR @10kHz (mΩ)	Î (A)	Î _s (A)	I _{max} @70°C, 10kHz (A)	Part number
4.0	32.0	22.0	13.0	27.5	----	2	1.0	16	6.7	280	840	7	C6AL4405-B00***
5.0	32.0	28.0	14.0	27.5	----	2	1.0	18	5.3	350	1 050	8	C6AL4505-B00***
6.8	32.0	33.0	18.0	27.5	----	2	1.2	21	3.9	476	1 428	11	C6AL4685-B00***
10	32.0	33.0	18.0	27.5	----	2	1.2	20	2.7	700	2 100	13	C6AL4106-B00***
10	41.0	32.0	17.0	37.5	----	2	1.2	22	4.9	400	1 200	10	C6AL4106-F00***
15	41.0	37.0	22.0	37.5	----	2	1.2	24	3.3	600	1 800	14	C6AL4156-F00***
18	42.0	36.0	23.0	37.5	----	2	1.2	25	2.7	720	2 160	14	C6AL4186-F00***
20	42.0	36.0	23.0	37.5	----	2	1.2	25	2.5	800	2 400	14	C6AL4206-F00***
★22	41.0	41.0	26.0	37.5	----	2	1.2	26	2.2	880	2 640	14	C6AL4226-FY0***
25	41.0	41.0	26.0	37.5	----	2	1.2	27	2.0	1 000	3 000	14	C6AL4256-F00***
30	42.0	45.0	30.0	37.5	----	2	1.2	28	1.6	1 200	3 600	14	C6AL4306-F00***
33	42.0	45.0	30.0	37.5	----	2	1.2	29	1.5	1 320	3 960	14	C6AL4336-F00***
40	57.0	43.5	29.5	52.5	20.3	4	1.2	26	2.6	800	2 400	20	C6AL4406-M0A***
50	57.0	50.0	35.0	52.5	20.3	4	1.2	28	2.1	1 000	3 000	24	C6AL4506-M0A***
60	57.0	50.0	35.0	52.5	20.3	4	1.2	29	1.7	1 200	3 600	27	C6AL4606-M0A***

U _{rms} =250Vac, U _N =350Vac, U _{NDC} =475Vdc													
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±1.0	b ±0.5	Pins	d ±0.05	L _s (nH)	ESR @10kHz (mΩ)	Î (A)	Î _s (A)	I _{max} @70°C, 10kHz (A)	Part number
1.5	32.0	20.0	11.0	27.5	----	2	1.0	20	12.9	135	405	4	C6AE2155-B00***
2.0	32.0	22.0	13.0	27.5	----	2	1.0	20	9.6	180	540	5	C6AE2205-B00***
2.2	32.0	22.0	13.0	27.5	----	2	1.0	20	8.8	198	594	6	C6AE2225-B00***
2.5	32.0	22.0	13.0	27.5	----	2	1.0	20	7.7	225	675	6	C6AE2255-B00***
★3.0	32.0	24.5	15.0	27.5	----	2	1.0	20	6.4	270	810	7	C6AE2305-B00***
★3.3	32.0	24.5	15.0	27.5	----	2	1.0	21	5.8	297	891	8	C6AE2335-B00***
3.5	32.0	28.0	14.0	27.5	----	2	1.0	23	5.5	315	945	8	C6AE2355-B00***
4.0	32.0	33.0	18.0	27.5	----	2	1.2	22	4.8	360	1 080	10	C6AE2405-B00***
4.5	32.0	33.0	18.0	27.5	----	2	1.2	23	4.3	405	1 215	10	C6AE2455-B00***
5.0	32.0	33.0	18.0	27.5	----	2	1.2	23	3.9	450	1 350	11	C6AE2505-B00***
6.8	32.0	37.0	22.0	27.5	----	2	1.2	24	2.8	612	1 836	14	C6AE2685-B00***
4.7	41.0	26.0	15.0	37.5	----	2	1.2	24	7.8	282	846	7	C6AE2475-F00***

- 备注 Note: 1. “-” 表示容量偏差。 “-” =capacitance tolerance code, J=±5%, K=±10%.
2. “***” 表示引线加工和包装代码(见上表)。 “***” =lead dimensions and packing mode code(refer to table 1).
3. “I_{max}” 为 10kHz、环境 70°C、Δθ_{case}=15.0°C 的值。 “I_{max}” @10kHz, θ_{amb}=70°C, Δθ_{case}=15°C.
4. 如果 b 要求 20.0mm, 则第 12 位代码用 “3”。 When the b=20.0mm, the digit 12 is “3” .
5. “★” 表示外壳为圆弧底。 “★” = Arc-bottom of the outer shell.
6. “ESR”、“L_s” 为典型值。 “ESR”、“L_s” are typical values.

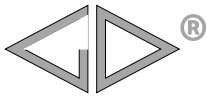


■ 技术参数 Technical data(mm)

U _{rms} =250Vac, U _N =350Vac, U _{NDC} =475Vdc													
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±1.0	b ±0.5	Pins	d ±0.05	L _s (nH)	ESR @10kHz (mΩ)	Î (A)	Î _s (A)	I _{max} @70°C, 10kHz (A)	Part number
5.0	42.0	28.0	14.0	37.5	----	2	1.2	26	7.3	300	900	8	C6AE2505-F00***
6.0	41.0	32.0	17.0	37.5	----	2	1.2	26	6.1	360	1 080	9	C6AE2605-F00***
6.5	41.0	32.0	17.0	37.5	----	2	1.2	26	5.6	390	1 170	10	C6AE2655-F00***
6.8	41.0	33.5	18.5	37.5	----	2	1.2	27	5.4	408	1 224	10	C6AE2685-F00***
7.5	41.0	33.5	18.5	37.5	----	2	1.2	27	4.9	450	1 350	11	C6AE2755-F00***
8.0	41.0	37.0	22.0	37.5	----	2	1.2	27	4.6	480	1 440	12	C6AE2805-F00***
10	41.0	37.0	22.0	37.5	----	2	1.2	28	3.7	600	1 800	13	C6AE2106-F00***
12	41.0	41.0	26.0	37.5	----	2	1.2	29	3.0	720	2 160	14	C6AE2126-F00***
15	41.0	41.0	26.0	37.5	----	2	1.2	30	2.4	900	2 700	14	C6AE2156-F00***
18	41.0	43.0	28.0	37.5	----	2	1.2	31	2.0	1 080	3 240	14	C6AE2186-F00***
20	42.0	45.0	30.0	37.5	----	2	1.2	32	1.8	1 200	3 600	14	C6AE2206-F00***
22	42.0	45.0	30.0	37.5	----	2	1.2	33	1.7	1 320	3 960	14	C6AE2226-F00***
25	57.0	43.5	29.5	52.5	20.3	4	1.2	31	3.3	750	2 250	18	C6AE2256-M0A***
30	57.0	43.5	29.5	52.5	20.3	4	1.2	32	2.7	900	2 700	20	C6AE2306-M0A***
35	57.0	50.0	35.0	52.5	20.3	4	1.2	32	2.3	1 050	3 150	23	C6AE2356-M0A***
40	57.0	50.0	35.0	52.5	20.3	4	1.2	33	2.0	1 200	3 600	25	C6AE2406-M0A***

U _{rms} =300Vac, U _N =425Vac, U _{NDC} =560Vdc													
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±1.0	b ±0.5	Pins	d ±0.05	L _s (nH)	ESR @10kHz (mΩ)	Î (A)	Î _s (A)	I _{max} @70°C, 10kHz (A)	Part number
1.0	32.0	20.0	11.0	27.5	----	2	1.0	16	15.9	100	300	4	C6AQ1105-B00***
1.5	32.0	22.0	13.0	27.5	----	2	1.0	17	10.6	150	450	5	C6AQ1155-B00***
★ 2.0	32.0	24.5	15.0	27.5	----	2	1.0	18	8.9	200	600	6	C6AQ1205-B00***
★ 2.2	32.0	24.5	15.0	27.5	----	2	1.0	18	8.0	220	660	7	C6AQ1225-B00***
2.5	32.0	28.0	14.0	27.5	----	2	1.0	19	7.2	250	750	8	C6AQ1255-B00***
3.0	32.0	33.0	18.0	27.5	----	2	1.2	21	6.4	300	900	9	C6AQ1305-B00***
3.3	32.0	33.0	18.0	27.5	----	2	1.2	20	5.3	330	990	10	C6AQ1335-B00***
3.5	32.0	33.0	18.0	27.5	----	2	1.2	21	4.8	350	1 050	10	C6AQ1355-B00***
4.0	32.0	33.0	18.0	27.5	----	2	1.2	21	4.6	400	1 200	11	C6AQ1405-B00***
4.7	32.0	37.0	22.0	27.5	----	2	1.2	22	4.0	470	1 410	13	C6AQ1475-B00***
5.0	32.0	37.0	22.0	27.5	----	2	1.2	22	3.4	500	1 500	13	C6AQ1505-B00***
6.8	32.0	37.0	22.0	27.5	----	2	1.2	23	3.2	680	2 040	14	C6AQ1685-B00***
3.0	41.0	26.0	15.0	37.5	----	2	1.2	22	10.1	210	630	6	C6AQ1305-F00***

- 备注 Note: 1. “-”表示容量偏差。 “-”=capacitance tolerance code, J=±5%, K=±10%。
 2. “***”表示引线加工和包装代码(见上表)。“***”=lead dimensions and packing mode code(refer to table 1).
 3. “I_{max}”为10kHz、环境70°C、Δθ_{case}=15.0°C的值。“I_{max}”@10kHz, θ_{amb}=70°C, Δθ_{case}=15°C。
 4. 如果b要求20.0mm,则第12位代码用“3”。When the b=20.0mm, the digit 12 is “3”。
 5. “U_{rms}=300Vac”:随着电源电压波动,最大交流施加电压为300Vac。300Vac为相对额定电压240Vac、电源电压波动时的最大值,并非连续施加电压的保证值。
 “U_{rms} = 300Vac”: As the power supply voltage fluctuation, the maximum ac voltage is 300Vac. And 300Vac is the maximum voltage when the power supply voltage (rated voltage is 240Vac) is in a fluctuation, instead of the guarantee of continuous voltage value.
 6. “★”表示外壳为圆弧底。“★”= Arc-bottom of the outer shell.
 7. “ESR”、“L_s”为典型值。“ESR”、“L_s” are typical values.



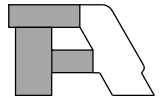
C6A

■ 技术参数 Technical data(mm)

U _{rms} =300Vac, U _N =425Vac, U _{NDC} =560Vdc													
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±1.0	b ±0.5	Pins	d ±0.05	L _s (nH)	ESR @10kHz (mΩ)	Î (A)	Î _s (A)	I _{max} @70°C, 10kHz (A)	Part number
3.3	41.0	26.0	15.0	37.5	----	2	1.2	22	9.2	231	693	7	C6AQ1335-F00***
3.5	42.0	28.0	14.0	37.5	----	2	1.2	23	8.6	245	735	7	C6AQ1355-F00***
4.0	41.0	32.0	17.0	37.5	----	2	1.2	24	7.6	280	840	8	C6AQ1405-F00***
4.5	41.0	32.0	17.0	37.5	----	2	1.2	24	6.7	315	945	9	C6AQ1455-F00***
4.7	41.0	32.0	17.0	37.5	----	2	1.2	24	6.4	329	987	9	C6AQ1475-F00***
5.0	41.0	33.5	18.5	37.5	----	2	1.2	24	6.0	350	1050	10	C6AQ1505-F00***
6.0	41.0	33.5	18.5	37.5	----	2	1.2	25	5.0	420	1260	11	C6AQ1605-F00***
6.8	41.0	37.0	22.0	37.5	----	2	1.2	25	4.4	476	1428	12	C6AQ1685-F00***
8.0	41.0	37.0	22.0	37.5	----	2	1.2	26	3.8	560	1680	13	C6AQ1805-F00***
10	41.0	41.0	26.0	37.5	----	2	1.2	28	3.0	700	2100	14	C6AQ1106-F00***
12	41.0	43.0	28.0	37.5	----	2	1.2	29	2.5	840	2520	14	C6AQ1126-F00***
15	42.0	45.0	30.0	37.5	----	2	1.2	30	2.1	1050	3150	14	C6AQ1156-F00***
★18	57.0	43.5	29.5	52.5	20.3	4	1.2	29	3.8	720	2160	17	C6AQ1186-MYA***
★20	57.0	43.5	29.5	52.5	20.3	4	1.2	29	3.4	800	2400	18	C6AQ1206-M0A***
22	57.0	43.5	29.5	52.5	20.3	4	1.2	30	3.1	880	2640	20	C6AQ1226-M0A***
25	57.0	50.0	35.0	52.5	20.3	4	1.2	31	2.7	1000	3000	21	C6AQ1256-M0A***
28	57.0	50.0	35.0	52.5	20.3	4	1.2	32	2.4	1120	3360	23	C6AQ1286-M0A***

U _{rms} =350Vac, U _N =480Vac, U _{NDC} =600Vdc													
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±1.0	b ±0.5	Pins	d ±0.05	L _s (nH)	ESR @10kHz (mΩ)	Î (A)	Î _s (A)	I _{max} @70°C, 10kHz (A)	Part number
0.68	32.0	20.0	11.0	27.5	----	2	0.8	18	27.5	35	104	2.5	C6AR2684-B00***
0.82	32.0	22.0	13.0	27.5	----	2	0.8	18	23.3	42	125	3.0	C6AR2824-B00***
★1.0	32.0	22.0	13.0	27.5	----	2	0.8	18	19.6	51	153	3.2	C6AR2105-BY0***
★1.5	32.0	24.5	15.0	27.5	----	2	0.8	19	14.0	76	229	4.2	C6AR2155-BY0***
★2.0	32.0	30.0	16.0	27.5	----	2	0.8	21	11.1	102	306	5.0	C6AR2205-BY0***
2.2	32.0	30.0	16.0	27.5	----	2	0.8	20	10.4	112	336	5.2	C6AR2225-B00***
2.5	32.0	33.0	18.0	27.5	----	2	1.0	22	7.0	127	382	6.2	C6AR2255-B00***
3.0K	32.0	33.0	18.0	27.5	----	2	1.0	21	6.1	145	435	6.5	C6AR2305KB10***
3.0	32.0	37.0	22.0	27.5	----	2	1.0	24	5.8	153	458	7.4	C6AR2305-B00***
3.3	32.0	37.0	22.0	27.5	----	2	1.0	24	5.3	168	504	7.7	C6AR2335-B00***

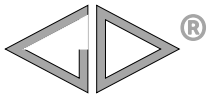
- 备注 Note: 1. “-” 表示容量偏差。 “-” =capacitance tolerance code, J=±5%, K=±10%。
 2. “***” 表示引线加工和包装代码(见上表)。“***” =lead dimensions and packing mode code(refer to table 1).
 3. “I_{max}” 为 10kHz、环境 70°C、Δθ_{case}=15.0°C 的值。“I_{max}” @10kHz, θ_{amb}=70°C, Δθ_{case}=15°C。
 4. 如果 b 要求 20.0mm, 则第 12 位代码用 “3”。 When the b=20.0mm, the digit 12 is “3”。
 5. “U_{rms}=300Vac”: 随着电源电压波动, 最大交流施加电压为 300Vac。300Vac 为相对额定电压 240Vac、电源电压波动时的最大值, 并非连续施加电压的保证值。
 “U_{rms} = 300Vac”: As the power supply voltage fluctuation, the maximum ac voltage is 300Vac. And 300Vac is the maximum voltage when the power supply voltage (rated voltage is 240Vac) is in a fluctuation, instead of the guarantee of continuous voltage value.
 6. “U_{rms}=350Vac” 适用于 277Vac 电网电压场合。“U_{rms}=350Vac” used in 277Vac power supply voltage.
 7. “★” 表示外壳为圆弧底。“★” = Arc-bottom of the outer shell.
 8. “ESR”、“L_s” 为典型值。“ESR”、“L_s” are typical values.



■ 技术参数 Technical data(mm)

U _{rms} =350Vac, U _N =480Vac, U _{NDC} =600Vdc													
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±1.0	b ±0.5	Pins	d ±0.05	L _s (nH)	ESR @10kHz (mΩ)	Î (A)	Î _s (A)	I _{max} @70°C, 10kHz (A)	Part number
★ 3.5	32.0	37.0	22.0	27.5	----	2	1.0	23	5.0	178	535	7.9	C6AR2355-BY0***
★ 4.0	32.0	37.0	22.0	27.5	----	2	1.0	23	4.4	204	611	8.2	C6AR2405-BY0***
1.0	41.0	22.0	11.0	37.5	----	2	1.0	24	28.0	36	109	2.8	C6AR2105-F00***
1.5	41.0	24.0	13.0	37.5	----	2	1.0	25	19.3	55	164	3.7	C6AR2155-F00***
2.0	41.0	26.0	15.0	37.5	----	2	1.0	26	14.9	73	219	4.6	C6AR2205-F00***
2.2	41.0	26.0	15.0	37.5	----	2	1.0	25	13.7	80	241	4.8	C6AR2225-F00***
★ 2.5	41.0	30.0	16.0	37.5	----	2	1.0	27	12.3	91	274	5.3	C6AR2255-FY0***
★ 3.0	41.0	30.0	16.0	37.5	----	2	1.0	26	10.5	109	328	5.7	C6AR2305-FY0***
3.3	41.0	32.0	17.0	37.5	----	2	1.0	29	9.7	120	361	6.2	C6AR2335-F00***
3.5	41.0	32.0	17.0	37.5	----	2	1.0	28	9.3	128	383	6.4	C6AR2355-F00***
4.0	41.0	33.5	18.5	37.5	----	2	1.0	29	8.3	146	438	7.0	C6AR2405-F00***
★ 4.5	41.0	37.0	22.0	37.5	----	2	1.0	31	7.6	164	493	8.0	C6AR2455-FY0***
★ 5.0	41.0	37.0	22.0	37.5	----	2	1.0	30	7.0	182	547	8.3	C6AR2505-FY0***
★ 5.5	41.0	37.0	22.0	37.5	----	2	1.0	29	6.6	201	602	8.6	C6AR2555-FY0***
6.0	41.0	41.0	26.0	37.5	----	2	1.0	32	6.2	219	657	9.7	C6AR2605-F00***
6.5	41.0	41.0	26.0	37.5	----	2	1.0	31	5.8	237	712	10.0	C6AR2655-F00***
7.0	41.0	41.0	26.0	37.5	----	2	1.0	31	5.5	255	766	10.3	C6AR2705-F00***
7.5	41.0	41.0	26.0	37.5	----	2	1.0	30	5.3	274	821	10.5	C6AR2755-F00***
8.0	41.0	41.0	26.0	37.5	----	2	1.0	30	5.1	292	876	10.5	C6AR2805-F00***
8.5	41.0	43.0	28.0	37.5	----	2	1.0	32	4.9	310	930	10.5	C6AR2855-F00***
9.0	41.0	43.0	28.0	37.5	----	2	1.0	31	4.7	328	985	10.5	C6AR2905-F00***
9.5	42.0	45.0	30.0	37.5	----	2	1.0	33	4.5	347	1 040	10.5	C6AR2955-F00***
10.0	42.0	45.0	30.0	37.5	----	2	1.0	32	4.4	365	1 095	10.5	C6AR2106-F00***

- 备注 Note: 1. “.”表示容量偏差。 “.”=capacitance tolerance code, J=±5%, K=±10%。
 2. “***”表示引线加工和包装代码(见上表)。“***”=lead dimensions and packing mode code(refer to table 1).
 3. “I_{max}”为10kHz、环境70°C、Δθ_{case}=15.0°C的值。“I_{max}”@10kHz, θ_{amb}=70°C, Δθ_{case}=15°C。
 4. “U_{rms}=350Vac”适用于277Vac电网电压场合。“U_{rms}=350Vac”used in 277Vac power supply voltage.
 5. “★”表示外壳为圆弧底。“★”=Arc-bottom of the outer shell.
 6. “ESR”、“L_s”为典型值。“ESR”、“L_s”are typical values.

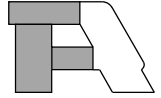


C6A

■ 技术参数 Technical data(mm)

U _{rms} =350Vac, U _N =480Vac, U _{NDC} =600Vdc													
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±1.0	b ±0.5	Pins	d ±0.05	L _s (nH)	ESR @10kHz (mΩ)	Î (A)	Î _s (A)	I _{max} @70°C, 10kHz (A)	Part number
10.0	57.0	45.0	25.0	52.5	----	2	1.2	34	5.7	260	781	11.6	C6AR2106-M00***
★ 11.0	57.0	45.0	25.0	52.5	----	2	1.2	33	5.3	286	859	11.9	C6AR2116-MY0***
12.0	57.0	43.5	29.5	52.5	20.3	4	1.2	29	4.4	312	937	14.1	C6AR2126-M1A***
15.0	57.0	45.0	35.0	52.5	20.3	4	1.2	31	3.7	391	1172	16.4	C6AR2156-M0A***
★ 16.0	57.0	45.0	35.0	52.5	20.3	4	1.2	30	3.5	417	1250	16.8	C6AR2166-MYA***
18.0	57.0	50.0	35.0	52.5	20.3	4	1.2	33	3.2	469	1406	18.1	C6AR2186-M0A***
20.0	57.0	50.0	40.0	52.5	20.3	4	1.2	32	2.9	521	1562	19.8	C6AR2206-M0A***

- 备注 Note: 1. “-”表示容量偏差。 “-”=capacitance tolerance code, J=±5%, K=±10%.
2. “***”表示引线加工和包装代码(见上表)。 “***”=lead dimensions and packing mode code(refer to table 1).
3. “I_{max}”为10kHz、环境70°C、Δθ_{case}=15.0°C的值。 “I_{max}”@10kHz, θ_{amb}=70°C, Δθ_{case}=15°C.
4. 如果b要求20.0mm,则第12位代码用“3”。 When the b=20.0mm, the digit 12 is “3” .
5. “U_{rms}=350Vac”适用于277Vac电网电压场合。 “U_{rms}=350Vac” used in 277Vac power supply voltage.
6. “★”表示外壳为圆弧底。 “★” = Arc-bottom of the outer shell.
7. “ESR”、“L_s”为典型值。 “ESR”、“L_s” are typical values.

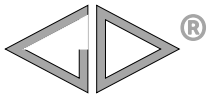


■ 技术参数 Technical data(mm)
THB version

U _{rms} =180Vac, U _N =250Vac, U _{NDC} =300Vdc													
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±1.0	b ±0.5	Pins	d ±0.05	L _s (nH)	ESR @10kHz (mΩ)	Î (A)	Î _s (A)	I _{max} @70°C, 10kHz (A)	Part number
4.0	32.0	22.0	13.0	27.5	----	2	1.0	16	6.7	280	840	7	C6AL4405-BW0***
5.0	32.0	28.0	14.0	27.5	----	2	1.0	18	5.3	350	1 050	8	C6AL4505-BW0***
★6.8	32.0	33.0	18.0	27.5	----	2	1.2	21	3.9	476	1 428	11	C6AL4685-BW0***
★10	32.0	33.0	18.0	27.5	----	2	1.2	20	2.7	700	2 100	13	C6AL4106-BW0***
★10	41.0	32.0	17.0	37.5	----	2	1.2	22	4.9	400	1 200	10	C6AL4106-FW0***
15	41.0	37.0	22.0	37.5	----	2	1.0	24	3.3	600	1 800	14	C6AL4156-FW0***
★18	42.0	36.0	23.0	37.5	----	2	1.2	25	2.7	720	2 160	14	C6AL4186-FW0***
★20	42.0	36.0	23.0	37.5	----	2	1.2	25	2.5	800	2 400	14	C6AL4206-FW0***
22	41.0	41.0	26.0	37.5	----	2	1.2	26	2.2	880	2 640	14	C6AL4226-FW0***
25	41.0	41.0	26.0	37.5	----	2	1.2	27	2.0	1 000	3 000	14	C6AL4256-FW0***
30	42.0	45.0	30.0	37.5	----	2	1.2	28	1.6	1 200	3 600	14	C6AL4306-FW0***
33	42.0	45.0	30.0	37.5	----	2	1.2	29	1.5	1 320	3 960	14	C6AL4336-FW0***
40	57.0	43.5	29.5	52.5	20.3	4	1.2	26	2.6	800	2 400	20	C6AL4406-MWA***
50	57.0	50.0	35.0	52.5	20.3	4	1.2	28	2.1	1 000	3 000	24	C6AL4506-MWA***
60	57.0	50.0	35.0	52.5	20.3	4	1.2	29	1.7	1 200	3 600	27	C6AL4606-MWA***

U _{rms} =250Vac, U _N =350Vac, U _{NDC} =475Vdc													
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±1.0	b ±0.5	Pins	d ±0.05	L _s (nH)	ESR @10kHz (mΩ)	Î (A)	Î _s (A)	I _{max} @70°C, 10kHz (A)	Part number
1.5	32.0	20.0	11.0	27.5	----	2	1.0	20	12.9	135	405	4	C6AE2155-BW0***
2.0	32.0	22.0	13.0	27.5	----	2	1.0	20	9.6	180	540	5	C6AE2205-BW0***
2.2	32.0	22.0	13.0	27.5	----	2	1.0	20	8.8	198	594	6	C6AE2225-BW0***
2.5	32.0	22.0	13.0	27.5	----	2	1.0	20	7.7	225	675	6	C6AE2255-BW0***
3.0	32.0	24.5	15.0	27.5	----	2	1.0	20	6.4	270	810	7	C6AE2305-BW0***
3.3	32.0	24.5	15.0	27.5	----	2	1.0	21	5.8	297	891	8	C6AE2335-BW0***
3.5	32.0	28.0	14.0	27.5	----	2	1.0	23	5.5	315	945	8	C6AE2355-BW0***
★4.0	32.0	33.0	18.0	27.5	----	2	1.2	22	4.8	360	1 080	10	C6AE2405-BW0***
★4.5	32.0	33.0	18.0	27.5	----	2	1.2	23	4.3	405	1 215	10	C6AE2455-BW0***
★5.0	32.0	33.0	18.0	27.5	----	2	1.2	23	3.9	450	1 350	11	C6AE2505-BW0***
6.8	32.0	37.0	22.0	27.5	----	2	1.2	24	2.8	612	1 836	14	C6AE2685-BW0***
★4.7	41.0	26.0	15.0	37.5	----	2	1.2	24	7.8	282	846	7	C6AE2475-FW0***

- 备注 Note: 1. “-”表示容量偏差。 “-”=capacitance tolerance code, J=±5%, K=±10%。
 2. “***”表示引线加工和包装代码(见上表)。“***”=lead dimensions and packing mode code(refer to table 1).
 3. “I_{max}”为10kHz、环境70°C、Δθ_{case}=15.0°C的值。“I_{max}”@10kHz, θ_{amb}=70°C, Δθ_{case}=15°C。
 4. 如果b要求20.0mm,则第12位代码用“3”。 When the b=20.0mm, the digit 12 is “3” .
 5. “★”表示外壳为圆弧底。“★”=Arc-bottom of the outer shell.
 6. “ESR”、“L_s”为典型值。“ESR”、“L_s” are typical values.



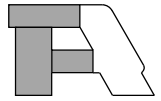
C6A

■ 技术参数 Technical data(mm)
THB version

U _{rms} =250Vac, U _N =350Vac, U _{NDC} =475Vdc													
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±1.0	b ±0.5	Pins	d ±0.05	L _s (nH)	ESR @10kHz (mΩ)	Î (A)	Î _s (A)	I _{max} @70°C, 10kHz (A)	Part number
★ 5.0	42.0	28.0	14.0	37.5	----	2	1.2	26	7.3	300	900	8	C6AE2505-FW0***
★ 6.0	41.0	32.0	17.0	37.5	----	2	1.2	26	6.1	360	1 080	9	C6AE2605-FW0***
★ 6.5	41.0	32.0	17.0	37.5	----	2	1.2	26	5.6	390	1 170	10	C6AE2655-FW0***
6.8	41.0	33.5	18.5	37.5	----	2	1.2	27	5.4	408	1 224	10	C6AE2685-FW0***
7.5	41.0	33.5	18.5	37.5	----	2	1.2	27	4.9	450	1 350	11	C6AE2755-FW0***
8.0	41.0	37.0	22.0	37.5	----	2	1.2	27	4.6	480	1 440	12	C6AE2805-FW0***
10	41.0	37.0	22.0	37.5	----	2	1.2	28	3.7	600	1 800	13	C6AE2106-FW0***
12	41.0	41.0	26.0	37.5	----	2	1.2	29	3.0	720	2 160	14	C6AE2126-FW0***
15	41.0	41.0	26.0	37.5	----	2	1.2	30	2.4	900	2 700	14	C6AE2156-FW0***
★ 18	41.0	43.0	28.0	37.5	----	2	1.2	31	2.0	1 080	3 240	14	C6AE2186-FW0***
20	42.0	45.0	30.0	37.5	----	2	1.2	32	1.8	1 200	3 600	14	C6AE2206-FW0***
22	42.0	45.0	30.0	37.5	----	2	1.2	33	1.7	1 320	3 960	14	C6AE2226-FW0***
25	57.0	43.5	29.5	52.5	20.3	4	1.2	31	3.3	750	2 250	18	C6AE2256-MWA***
30	57.0	43.5	29.5	52.5	20.3	4	1.2	32	2.7	900	2 700	20	C6AE2306-MWA***
35	57.0	50.0	35.0	52.5	20.3	4	1.2	32	2.3	1 050	3 150	23	C6AE2356-MWA***
40	57.0	50.0	35.0	52.5	20.3	4	1.2	33	2.0	1 200	3 600	25	C6AE2406-MWA***

U _{rms} =300Vac, U _N =425Vac, U _{NDC} =560Vdc													
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±1.0	b ±0.5	Pins	d ±0.05	L _s (nH)	ESR @10kHz (mΩ)	Î (A)	Î _s (A)	I _{max} @70°C, 10kHz (A)	Part number
1.0	32.0	20.0	11.0	27.5	----	2	1.0	16	15.9	100	300	4	C6AQ1105-BW0***
1.5	32.0	22.0	13.0	27.5	----	2	1.0	17	10.6	150	450	5	C6AQ1155-BW0***
2.0	32.0	24.5	15.0	27.5	----	2	1.0	18	8.9	200	600	6	C6AQ1205-BW0***
2.2	32.0	24.5	15.0	27.5	----	2	1.0	18	8.0	220	660	7	C6AQ1225-BW0***
2.5	32.0	28.0	14.0	27.5	----	2	1.0	19	7.2	250	750	8	C6AQ1255-BW0***
★ 3.0	32.0	33.0	18.0	27.5	----	2	1.2	21	6.4	300	900	9	C6AQ1305-BW0***
★ 3.3	32.0	33.0	18.0	27.5	----	2	1.2	20	5.3	330	990	10	C6AQ1335-BW0***
★ 3.5	32.0	33.0	18.0	27.5	----	2	1.2	21	4.8	350	1 050	10	C6AQ1355-BW0***
★ 4.0	32.0	33.0	18.0	27.5	----	2	1.2	21	4.6	400	1 200	11	C6AQ1405-BW0***
4.7	32.0	37.0	22.0	27.5	----	2	1.2	22	4.0	470	1 410	13	C6AQ1475-BW0***
5.0	32.0	37.0	22.0	27.5	----	2	1.2	22	3.4	500	1 500	13	C6AQ1505-BW0***
6.8	32.0	37.0	22.0	27.5	----	2	1.2	23	3.2	680	2 040	14	C6AQ1685-BW0***
★ 3.0	41.0	26.0	15.0	37.5	----	2	1.2	22	10.1	210	630	6	C6AQ1305-FW0***

- 备注 Note: 1. “-” 表示容量偏差。 “-” =capacitance tolerance code, J=±5%, K=±10%。
 2. “***” 表示引线加工和包装代码(见上表)。 “***” =lead dimensions and packing mode code(refer to table 1).
 3. “I_{max}” 为 10kHz、环境 70°C、Δθ_{case}=15.0°C 的值。 “I_{max}” @10kHz, θ_{amb}=70°C, Δθ_{case}=15°C。
 4. 如果 b 要求 20.0mm, 则第 12 位代码用 “3”。 When the b=20.0mm, the digit 12 is “3” .
 5. “U_{rms}=300Vac” : 随着电源电压波动, 最大交流施加电压为 300Vac。300Vac 为相对额定电压 240Vac、电源电压波动时的最大值, 并非连续施加电压的保证值。
 “Urms = 300Vac” : As the power supply voltage fluctuation, the maximum ac voltage is 300Vac. And 300Vac is the maximum voltage when the power supply voltage (rated voltage is 240Vac) is in a fluctuation, instead of the guarantee of continuous voltage value.
 6. “★” 表示外壳为圆弧底。 “★” = Arc-bottom of the outer shell.
 7. “ESR”、“L_s” 为典型值。 “ESR”、“L_s” are typical values.

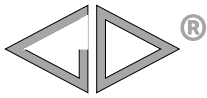


■ 技术参数 Technical data(mm)
THB version

U _{rms} =300Vac, U _N =425Vac, U _{NDC} =560Vdc													
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±1.0	b ±0.5	Pins	d ±0.05	L _s (nH)	ESR @10kHz (mΩ)	Î (A)	Î _s (A)	I _{max} @70°C, 10kHz (A)	Part number
★ 3.3	41.0	26.0	15.0	37.5	----	2	1.2	22	9.2	231	693	7	C6AQ1335-FW0***
★ 3.5	42.0	28.0	14.0	37.5	----	2	1.2	23	8.6	245	735	7	C6AQ1355-FW0***
★ 4.0	41.0	32.0	17.0	37.5	----	2	1.2	24	7.6	280	840	8	C6AQ1405-FW0***
★ 4.5	41.0	32.0	17.0	37.5	----	2	1.2	24	6.7	315	945	9	C6AQ1455-FW0***
★ 4.7	41.0	32.0	17.0	37.5	----	2	1.2	24	6.4	329	987	9	C6AQ1475-FW0***
5.0	41.0	33.5	18.5	37.5	----	2	1.2	24	6.0	350	1 050	10	C6AQ1505-FW0***
6.0	41.0	33.5	18.5	37.5	----	2	1.2	25	5.0	420	1 260	11	C6AQ1605-FW0***
6.8	41.0	37.0	22.0	37.5	----	2	1.2	25	4.4	476	1 428	12	C6AQ1685-FW0***
8.0	41.0	37.0	22.0	37.5	----	2	1.2	26	3.8	560	1 680	13	C6AQ1805-FW0***
10	41.0	41.0	26.0	37.5	----	2	1.2	28	3.0	700	2 100	14	C6AQ1106-FW0***
★ 12	41.0	43.0	28.0	37.5	----	2	1.2	29	2.5	840	2 520	14	C6AQ1126-FW0***
15	42.0	45.0	30.0	37.5	----	2	1.2	30	2.1	1 050	3 150	14	C6AQ1156-FW0***
18	57.0	43.5	29.5	52.5	20.3	4	1.2	29	3.8	720	2 160	17	C6AQ1186-MWA***
20	57.0	43.5	29.5	52.5	20.3	4	1.2	29	3.4	800	2 400	18	C6AQ1206-MWA***
★ 20	57.0	44.0	29.5	52.5	20.3	4	1.2	29	3.4	800	2 400	18	C6AQ1206-M7A***
22	57.0	43.5	29.5	52.5	20.3	4	1.2	30	3.1	880	2 640	20	C6AQ1226-MWA***
★ 25	57.0	50.0	35.0	52.5	20.3	4	1.2	31	2.7	1 000	3 000	21	C6AQ1256-MWA***
★ 28	57.0	50.0	35.0	52.5	20.3	4	1.2	32	2.4	1 120	3 360	23	C6AQ1286-MWA***

U _{rms} =350Vac, U _N =480Vac, U _{NDC} =600Vdc													
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±1.0	b ±0.5	Pins	d ±0.05	L _s (nH)	ESR @10kHz (mΩ)	Î (A)	Î _s (A)	I _{max} @70°C, 10kHz (A)	Part number
0.68	32.0	20.0	11.0	27.5	----	2	0.8	18	27.5	35	104	2.5	C6AR2684-BW0***
0.82	32.0	22.0	13.0	27.5	----	2	0.8	18	23.3	42	125	3.0	C6AR2824-BW0***
1.0	32.0	22.0	13.0	27.5	----	2	0.8	18	19.6	51	153	3.2	C6AR2105-BW0***
1.5	32.0	24.5	15.0	27.5	----	2	0.8	19	14.0	76	229	4.2	C6AR2155-BW0***
2.0	32.0	30.0	16.0	27.5	----	2	0.8	21	11.1	102	306	5.0	C6AR2205-BW0***
2.2	32.0	30.0	16.0	27.5	----	2	0.8	20	10.4	112	336	5.2	C6AR2225-BW0***
2.5	32.0	33.0	18.0	27.5	----	2	1.0	22	7.0	127	382	6.2	C6AR2255-BW0***
3.0	32.0	37.0	22.0	27.5	----	2	1.0	24	5.8	153	458	7.4	C6AR2305-BW0***
3.3	32.0	37.0	22.0	27.5	----	2	1.0	24	5.3	168	504	7.7	C6AR2335-BW0***

- 备注 Note: 1. “-”表示容量偏差。 “-”=capacitance tolerance code, J=±5%, K=±10%。
 2. “***”表示引线加工和包装代码(见上表)。“****”=lead dimensions and packing mode code(refer to table 1).
 3. “I_{max}”为10kHz、环境70°C、Δθ_{case}=15.0°C的值。“I_{max}@10kHz, θ_{amb}=70°C, Δθ_{case}=15°C。
 4. 如果b要求20.0mm,则第12位代码用“3”。When the b=20.0mm, the digit 12 is “3”。
 5. “U_{rms}=300Vac”:随着电源电压波动,最大交流施加电压为300Vac。300Vac为相对额定电压240Vac、电源电压波动时的最大值,并非连续施加电压的保证值。
 “U_{rms} = 300Vac”: As the power supply voltage fluctuation, the maximum ac voltage is 300Vac. And 300Vac is the maximum voltage when the power supply voltage (rated voltage is 240Vac) is in a fluctuation, instead of the guarantee of continuous voltage value.
 6. “U_{rms}=350Vac”适用于277Vac电网电压场合。“U_{rms}=350Vac” used in 277Vac power supply voltage.
 7. “★”表示外壳为圆弧底。“★”= Arc-bottom of the outer shell.
 8. “ESR”、“L_s”为典型值。“ESR”、“L_s” are typical values.

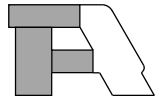


C6A

■ 技术参数 Technical data(mm)
THB version

U _{rms} =350Vac, U _N =480Vac, U _{NDC} =600Vdc													
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±1.0	b ±0.5	Pins	d ±0.05	L _s (nH)	ESR @10kHz (mΩ)	Î (A)	Î _s (A)	I _{max} @70°C, 10kHz (A)	Part number
3.5	32.0	37.0	22.0	27.5	----	2	1.0	23	5.0	178	535	7.9	C6AR2355-BW0***
4.0	32.0	37.0	22.0	27.5	----	2	1.0	23	4.4	204	611	8.2	C6AR2405-BW0***
1.0	41.0	22.0	11.0	37.5	----	2	1.0	24	28.0	36	109	2.8	C6AR2105-FW0***
1.5	41.0	24.0	13.0	37.5	----	2	1.0	25	19.3	55	164	3.7	C6AR2155-FW0***
★ 2.0	41.0	26.0	15.0	37.5	----	2	1.0	26	14.9	73	219	4.6	C6AR2205-FW0***
★ 2.2	41.0	26.0	15.0	37.5	----	2	1.0	25	13.7	80	241	4.8	C6AR2225-FW0***
2.5	41.0	30.0	16.0	37.5	----	2	1.0	27	12.3	91	274	5.3	C6AR2255-FW0***
3.0	41.0	30.0	16.0	37.5	----	2	1.0	26	10.5	109	328	5.7	C6AR2305-FW0***
★ 3.3	41.0	32.0	17.0	37.5	----	2	1.0	29	9.7	120	361	6.2	C6AR2335-FW0***
★ 3.5	41.0	32.0	17.0	37.5	----	2	1.0	28	9.3	128	383	6.4	C6AR2355-FW0***
4.0	41.0	33.5	18.5	37.5	----	2	1.0	29	8.3	146	438	7.0	C6AR2405-FW0***
4.5	41.0	37.0	22.0	37.5	----	2	1.0	31	7.6	164	493	8.0	C6AR2455-FW0***
5.0	41.0	37.0	22.0	37.5	----	2	1.0	30	7.0	182	547	8.3	C6AR2505-FW0***
5.5	41.0	37.0	22.0	37.5	----	2	1.0	29	6.6	201	602	8.6	C6AR2555-FW0***
6.0	41.0	41.0	26.0	37.5	----	2	1.0	32	6.2	219	657	9.7	C6AR2605-FW0***
6.5	41.0	41.0	26.0	37.5	----	2	1.0	31	5.8	237	712	10.0	C6AR2655-FW0***
7.0	41.0	41.0	26.0	37.5	----	2	1.0	31	5.5	255	766	10.3	C6AR2705-FW0***
7.5	41.0	41.0	26.0	37.5	----	2	1.0	30	5.3	274	821	10.5	C6AR2755-FW0***
★ 7.5	41.0	43.0	22.0	37.5	----	2	1.0	30	5.3	274	821	10.5	C6AR2755-F10***
8.0	41.0	41.0	26.0	37.5	----	2	1.0	30	5.1	292	876	10.5	C6AR2805-FW0***
★ 8.5	41.0	43.0	28.0	37.5	----	2	1.0	32	4.9	310	930	10.5	C6AR2855-FW0***
★ 9.0	41.0	43.0	28.0	37.5	----	2	1.0	31	4.7	328	985	10.5	C6AR2905-FW0***
9.5	42.0	45.0	30.0	37.5	----	2	1.0	33	4.5	347	1040	10.5	C6AR2955-FW0***
10.0	42.0	45.0	30.0	37.5	----	2	1.0	32	4.4	365	1095	10.5	C6AR2106-FW0***
★ 10.0	42.0	45.0	30.0	37.5	20.3	4	1.0	32	4.4	365	1095	10.5	C6AR2106-FWA***

- 备注 Note: 1. “-”表示容量偏差。 “-”=capacitance tolerance code, J=±5%, K=±10%。
 2. “***”表示引线加工和包装代码(见上表)。“***”=lead dimensions and packing mode code(refer to table 1).
 3. “I_{max}”为10kHz、环境70°C、Δθ_{case}=15.0°C的值。“I_{max}”@10kHz, θ_{amb}=70°C, Δθ_{case}=15°C。
 4. “U_{rms}=350Vac”适用于277Vac电网电压场合。“U_{rms}=350Vac” used in 277Vac power supply voltage.
 5. “★”表示外壳为圆弧底。“★”=Arc-bottom of the outer shell.
 6. “ESR”、“L_s”为典型值。“ESR”、“L_s” are typical values.



■ 技术参数 Technical data(mm) THB version

U _{rms} =350Vac, U _N =480Vac, U _{NDC} =600Vdc													
C _N (μF)	W ±1.0	H ±1.0	T ±1.0	P ±1.0	b ±0.5	Pins	d ±0.05	L _s (nH)	ESR @10kHz (mΩ)	Î (A)	I _s (A)	I _{max} @70°C, 10kHz (A)	Part number
10.0	57.0	45.0	25.0	52.5	----	2	1.2	34	5.7	260	781	11.6	C6AR2106-MW0***
11.0	57.0	45.0	25.0	52.5	----	2	1.2	33	5.3	286	859	11.9	C6AR2116-MW0***
12.0	57.0	43.5	29.5	52.5	20.3	4	1.2	29	4.4	312	937	14.1	C6AR2126-MWA***
15.0	57.0	45.0	35.0	52.5	20.3	4	1.2	31	3.7	391	1172	16.4	C6AR2156-MWA***
16.0	57.0	45.0	35.0	52.5	20.3	4	1.2	30	3.5	417	1250	16.8	C6AR2166-MWA***
18.0	57.0	50.0	35.0	52.5	20.3	4	1.2	33	3.2	469	1406	18.1	C6AR2186-MWA***
20.0	57.0	50.0	40.0	52.5	20.3	4	1.2	32	2.9	521	1562	19.8	C6AR2206-MWA***
21.0	57.0	50.0	40.0	52.5	20.3	4	1.2	32	2.8	547	1640	20.1	C6AR2216-MWA***
25.0	57.0	55.0	45.0	52.5	20.3	4	1.2	34	2.5	651	1953	22.8	C6AR2256-MWA***
27.0	57.0	55.0	45.0	52.5	20.3	4	1.2	33	2.4	703	2109	23.5	C6AR2276-MWA***

备注 Note: 1. “-”表示容量偏差。 “-”=capacitance tolerance code, J=±5%, K=±10%.

2. “***”表示引线加工和包装代码(见上表)。“****”=lead dimensions and packing mode code(refer to table 1).
3. “I_{max}”为10kHz、环境70°C、Δθ_{case}=15.0°C的值。“I_{max}”@10kHz, θ_{amb}=70°C, Δθ_{case}=15°C.
4. 如果b要求20.0mm,则第12位代码用“3”。When the b=20.0mm, the digit 12 is “3”.
5. “U_{rms}=350Vac”适用于277Vac电网电压场合。“U_{rms}=350Vac” used in 277Vac power supply voltage.
6. “★”表示外壳为圆弧底。“★”=Arc-bottom of the outer shell.
7. “ESR”、“L_s”为典型值。“ESR”、“L_s” are typical values.

■ 使用注意事项 Caution and warnings

- 使用时不得超过产品允许的最高温度

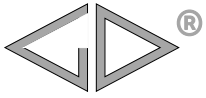
When using the products shall not exceed the maximum allowed temperature

- 不能大力拉扯引出线

Do not apply any mechanical stress to the capacitor terminals

- 电容器焊接至PCB板时应注意控制焊接温度以及焊接时间

Do not exceed the specified time or temperature limits during soldering

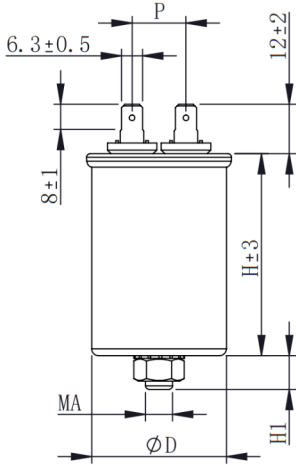


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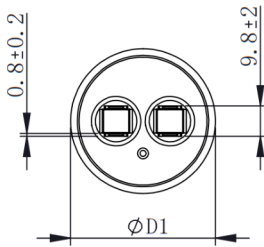
油式单相交流滤波电容器 Oil-filled type single phase AC filter capacitor

■ 外形图 Outline Drawing

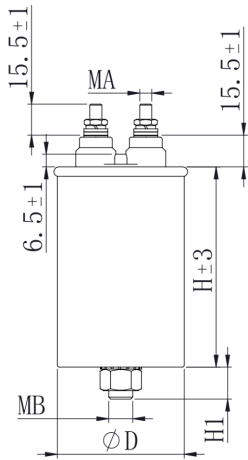
焊片式设计(无滚槽设计, D=40~60) Tab type design (Without channeling, D=40~60)



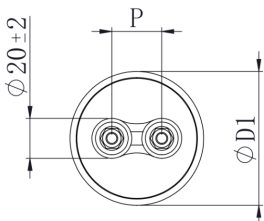
D±1	40	45~50	55	60
H1±1	10	10	12	16
P±1.5	16	18	20	20
MA	M8	M8	M10	M12

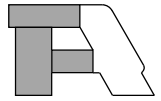


螺栓式设计(无滚槽设计, D=63.5) Bolt type design (Without channeling, D=63.5)

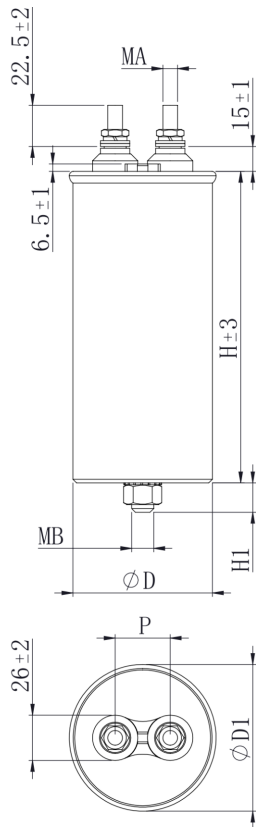


D±1	63.5
H1±1	16
P±1	25
MA	M6
MB	M12



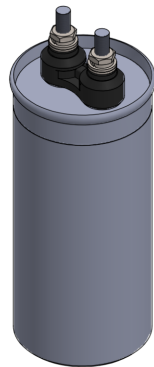
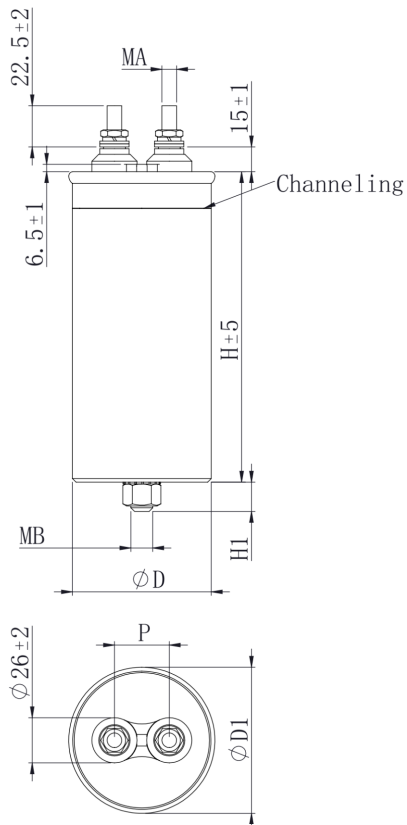


螺栓式设计(无滚槽设计, D=76~116) Bolt type design(Without channeling, D=76~116)

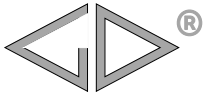


D±1	76~96	106~116
H1±1	16	16
P±1	30	35
MA	M8	M10
MB	M12	M12

螺栓式设计(滚槽设计, D=116) Bolt type design(Channeling, D=116)



D±1	116
H1±1	16
P±1	35
MA	M10
MB	M12



C6M

■ 特点

- 金属化聚丙烯膜设计，自愈性优良
- 防爆设计，过压力保护更安全
- 适用于电力电子设备、UPS 电源中的交流滤波电路，能承受较高的谐波电流及峰值电流、电压
- 对于焊片式，可满足 96h 中性盐雾试验

■ Features

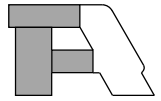
- Metallized polypropylene film design, excellent self-healing property
- Anti-explosion design, more safety overpressure protection
- The capacitors particularly suit for AC filter circuit in power electric equipment and UPS power unit. They have ability to withstand high harmonic current, peak current and peak voltage
- For tab type, the capacitors meet 96h neutral salt spray

■ 安全认证 Safety Approvals

	TUV Rheinland (德国)	EN 61071:2017, EN 61881-1:2011, U_{rms} : 250Vac~1 200Vac, U_N :250Vac~1 700Vac, C_N : 3 μ F~660 μ F, -40°C/70°C or -40°C/85°C 证书号(Certificate No.):R 50479662
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■ 技术要求 Specifications

引用标准 Reference standards	GB/T 17702 (IEC 61071)
额定均方根电压 Rated RMS voltage (U_{rms})	焊片式 (Tab type) 250Vac ~ 500Vac (可根据客户要求定制 $U_{rms} \leq 660Vac$ 的设计) (The design of $U_{rms} \leq 660Vac$ can be customized according to customer requirements)
	螺栓式 (Bolt type) 250Vac ~ 850Vac (可根据客户要求定制 $U_{rms} \leq 1 500Vac$ 的设计) (The design of $U_{rms} \leq 1 500Vac$ can be customized according to customer requirements)
额定频率 Rated frequency (f_N)	50Hz/60Hz
额定电容量 Rated capacitance (C_N)	焊片式 (Tab type) 10 μ F ~ 150 μ F
	螺栓式 (Bolt type) 10 μ F ~ 600 μ F
电容量偏差 Capacitance tolerance	$\pm 5\%$ (J), $\pm 10\%$ (K), $-5\% \sim +10\%$ (G)
极间耐电压 Test voltage between terminals (U_{T-T})	$2.15U_{rms}$ or $1.5U_N$ (50Hz/60Hz), 10s
极壳耐电压 Test voltage between terminals to case (U_{T-C})	焊片式 (Tab type) 3 000Vac (50Hz/60Hz), 10s
	螺栓式 (Bolt type) 4 000Vac (50Hz/60Hz), 10s
绝缘电阻 Insulation resistance ($IR \times C_N$)	$\geq 10 000s$ (20°C, 500V, 1min)
介质损耗角正切 Dielectric dissipation factor ($\tan \delta_d$)	2×10^{-4}
气候类别 Climatic category	40/70/56
可运行温度范围 (热点温度) Operating temperature range (θ_{hs})	-40°C~85°C (建议使用过程中, 保证 $\theta_{hs} \leq 70^\circ C$, 否则会影响寿命) (It is suggested that θ_{hs} should be guaranteed to be less than 70°C in the use process, otherwise the lifetime will be affected)
贮存温度范围 Storage temperature range (θ_s)	-40°C~85°C (若 $\theta_s > 70^\circ C$, 会影响电容寿命) (If $\theta_s > 70^\circ C$, the lifetime will be affected)



预期寿命 Expected lifetime	$\Delta C/C$ ≤ 5% after 100 000h @0.8U _{rms} , θ_{hs} ≤ 70°C	
防爆装置 Explosion-proof device	过压力防护装置 Overpressure disconnecter	
内部填充料 Internal stuffing	Oil (Non PCB)	
冷却方式 Cooling	自然空气或强制制冷 Naturally air-cooled or force cooled	
安装 Installation	位置 Position	端子朝上 Terminals upright
	引出端形式 Terminal form	焊片式 (Tab type) AMP250# 插片每边 2 个 Two AMP250# per side
		螺栓式 (Bolt type) 螺栓式 M6、M8 或 M10 Bolt type M6, M8 or M10
	安装形式 Fixed style	焊片式 (Tab type) 底部螺栓 M8、M10 或 M12 Bottom-bolt M8, M10 or M12 中部卡圈 Ring-clip in the middle of case
螺栓式 (Bolt type) 底部螺栓 M12 Bottom-bolt M12		
电极最大扭矩 Max. torque of terminals	螺栓式 (Bolt type) 3N·m (M6), 6N·m (M8), 8N·m (M10)	
最大安装扭矩 Max. torque of installation	5N·m (M8), 7N·m (M10), 10N·m (M12)	
最高使用海拔 Max. altitude	2 000m: 电流不降额 (No derating for current) 2 000m to 5 000m: 电流每 500m 按 3% 降额 (Decreasing factor 3% per 500m for current)	

■ 产品编码说明 Part number system

15 位产品代码如下:

The 15 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	6	M												

第 1~3 位 型号代码

C6M

Digit 1 to 3

Series code

C6M

第 4~5 位 额定均方根电压

E2=250Vac R1=330Vac H2=500Vac

T1=540Vac U1=600Vac U2=690Vac

V2=760Vac W1=850Vac

Digit 4 to 5

Rated RMS voltage

E2=250Vac R1=330Vac H2=500Vac

T1=540Vac U1=600Vac U2=690Vac

V2=760Vac W1=850Vac

第 6~8 位 标称容量

举例: 506=50 × 10⁶pF=50μF

Digit 6 to 8

Rated capacitance value

For example: 506=50 × 10⁶pF=50μF

第 9 位

容量偏差

J=±5%, K=±10%, 6=-5%~+10%

Digit 9

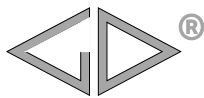
Capacitance tolerance

J=±5%, K=±10%, 6=-5%~+10%

第 10~15 位 内部特征码

Digit 10 to 15

Internal use



C6M

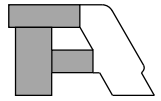
■ 技术参数 Technical data (mm)

焊片式 (Tab type)

U _{rms} =250Vac U _N =350Vac												
C _N (μF)	D±1 (mm)	D1 _{max} (mm)	H (mm)	P±1.5 (mm)	R _s (mΩ)	L _s (nH)	R _{th} (K/W)	I _{max} (A)	Î (kA)	Î _s (kA)	M (kg)	Part number
15	40	44	65	16	7.1	80	21.4	10	0.2	0.6	0.10	C6ME2156-*****
25	45	49	75	18	6.6	100	17.1	12	0.3	0.9	0.14	C6ME2256-*****
35	50	54	75	18	5.1	100	15.1	14	0.4	1.2	0.17	C6ME2356-*****
50	55	59	80	20	4.0	100	12.9	16	0.6	1.8	0.22	C6ME2506-*****
60	60	64	80	20	3.5	100	11.4	16	0.7	2.1	0.26	C6ME2606-*****
80	60	64	90	20	3.7	120	10.6	16	0.8	2.4	0.29	C6ME2806-*****
100	60	64	105	20	4.3	150	9.4	16	0.7	2.1	0.34	C6ME2107-*****
120	60	64	115	20	4.6	170	8.6	16	0.8	2.4	0.38	C6ME2127-*****
140	60	64	130	20	5.1	210	7.8	16	0.8	2.4	0.43	C6ME2147-*****
150	60	64	130	20	4.9	210	7.6	16	0.8	2.4	0.43	C6ME2157-*****

U _{rms} =330Vac U _N =460Vac												
C _N (μF)	D±1 (mm)	D1 _{max} (mm)	H (mm)	P±1.5 (mm)	R _s (mΩ)	L _s (nH)	R _{th} (K/W)	I _{max} (A)	Î (kA)	Î _s (kA)	M (kg)	Part number
15	45	49	65	18	5.8	80	18.7	11	0.3	0.9	0.12	C6MR1156-*****
20	45	49	75	18	6.5	100	16.5	12	0.3	0.9	0.14	C6MR1206-*****
25	50	54	75	18	5.5	100	15.0	13	0.4	1.2	0.17	C6MR1256-*****
30	50	54	75	18	4.8	100	14.3	14	0.5	1.5	0.17	C6MR1306-*****
35	55	59	80	20	4.3	100	12.9	16	0.6	1.8	0.22	C6MR1356-*****
40	60	64	80	20	3.9	100	12.1	16	0.6	1.8	0.26	C6MR1406-*****
50	60	64	90	20	4.3	120	10.9	16	0.7	2.1	0.29	C6MR1506-*****
60	60	64	90	20	3.8	120	10.3	16	0.8	2.4	0.29	C6MR1606-*****
80	60	64	115	20	5.2	170	8.7	16	0.7	2.1	0.38	C6MR1806-*****
100	60	64	130	20	5.5	210	7.7	16	0.8	2.4	0.43	C6MR1107-*****

U _{rms} =500Vac U _N =700Vac												
C _N (μF)	D±1 (mm)	D1 _{max} (mm)	H (mm)	P±1.5 (mm)	R _s (mΩ)	L _s (nH)	R _{th} (K/W)	I _{max} (A)	Î (kA)	Î _s (kA)	M (kg)	Part number
10	45	49	75	18	5.3	100	16.7	11	0.3	0.9	0.14	C6MH2106-*****
12	45	49	75	18	4.6	100	15.9	12	0.4	1.2	0.14	C6MH2126-*****
15	50	54	75	18	4.0	100	14.5	14	0.5	1.5	0.17	C6MH2156-*****
20	55	59	80	20	3.3	100	12.5	16	0.7	2.1	0.22	C6MH2206-*****
25	60	64	80	20	2.9	100	11.4	16	0.9	2.7	0.26	C6MH2256-*****
30	60	64	90	20	3.3	120	10.5	16	0.8	2.4	0.29	C6MH2306-*****
35	60	64	105	20	3.9	150	9.6	16	0.7	2.1	0.34	C6MH2356-*****
40	60	64	105	20	3.6	150	9.1	16	0.9	2.7	0.34	C6MH2406-*****
45	60	64	115	20	4.0	170	8.5	16	0.8	2.4	0.38	C6MH2456-*****
50	60	64	130	20	4.6	210	7.9	16	0.8	2.4	0.43	C6MH2506-*****



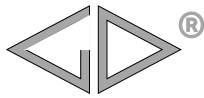
■ 技术参数 Technical data (mm)

螺栓式(Bolt type)

U _{rms} =250Vac U _N =350Vac												
C _N (μF)	D±1 (mm)	D1 _{max} (mm)	H (mm)	P±1 (mm)	R _s (mΩ)	L _s (nH)	R _{th} (K/W)	I _{max} (A)	Î (kA)	Î _s (kA)	M (kg)	Part number
150	76	80	120	30	2.8	140	7.3	35	2.4	7.2	0.6	C6ME2157-*****
160	76	80	120	30	2.6	140	7.1	36	2.6	7.8	0.6	C6ME2167-*****
180	76	80	130	30	2.9	160	6.7	35	2.4	7.2	0.6	C6ME2187-*****
200	76	80	130	30	2.7	160	6.5	37	2.7	8.1	0.6	C6ME2207-*****
230	76	80	145	30	3.0	190	6.0	36	2.4	7.1	0.7	C6ME2237-*****
250	76	80	170	30	2.0	110	5.3	47	2.6	7.8	0.8	C6ME2257-*****
300	76	80	200	30	1.9	140	4.7	51	4.8	14.4	1.0	C6ME2307-*****
350	76	80	200	30	1.8	140	4.4	54	5.6	16.8	1.0	C6ME2357-*****
400	86	90	200	30	1.6	140	4.3	57	6.4	19.2	1.3	C6ME2407-*****
500	86	90	220	30	1.7	160	3.8	59	6.6	19.8	1.4	C6ME2507-*****
600	86	90	250	30	1.8	190	3.4	59	6.2	18.6	1.6	C6ME2607-*****

U _{rms} =330Vac U _N =460Vac												
C _N (μF)	D±1 (mm)	D1 _{max} (mm)	H (mm)	P±1 (mm)	R _s (mΩ)	L _s (nH)	R _{th} (K/W)	I _{max} (A)	Î (kA)	Î _s (kA)	M (kg)	Part number
80	63.5	67.5	110	25	3.7	140	8.7	25	1.2	3.6	0.4	C6MR1806-*****
100	76	80	120	30	3.1	140	7.4	31	1.6	4.8	0.6	C6MR1107-*****
120	76	80	120	30	2.8	140	6.9	34	1.9	5.7	0.6	C6MR1127-*****
140	76	80	145	30	3.7	190	6.3	31	1.4	4.2	0.7	C6MR1147-*****
150	76	80	145	30	3.5	190	6.1	32	1.6	4.8	0.7	C6MR1157-*****
160	76	80	145	30	3.4	190	6.0	33	1.7	5.1	0.7	C6MR1167-*****
180	76	80	170	30	1.7	110	5.2	49	1.9	5.7	0.8	C6MR1187-*****
200	76	80	200	30	2.0	140	4.8	47	3.2	9.6	1.0	C6MR1207-*****
230	76	80	200	30	2.0	140	4.6	49	3.7	11.1	1.0	C6MR1237-*****
250	76	80	200	30	1.9	140	4.4	51	4.0	12.0	1.0	C6MR1257-*****
300	86	90	200	30	1.7	140	4.1	54	4.8	14.4	1.3	C6MR1307-*****
350	86	90	220	30	1.7	160	3.8	55	4.6	13.8	1.4	C6MR1357-*****
400	86	90	250	30	2.0	190	3.5	54	4.1	12.3	1.6	C6MR1407-*****

U _{rms} =500Vac U _N =700Vac												
C _N (μF)	D±1 (mm)	D1 _{max} (mm)	H (mm)	P±1 (mm)	R _s (mΩ)	L _s (nH)	R _{th} (K/W)	I _{max} (A)	Î (kA)	Î _s (kA)	M (kg)	Part number
20	76	80	75	30	1.9	80	9.8	22	1.2	3.6	0.4	C6MH2206-*****
50	76	80	120	30	2.6	140	7.5	32	1.2	3.6	0.6	C6MH2506-*****
60	76	80	120	30	2.3	140	7.1	34	1.4	4.2	0.6	C6MH2606-*****
70	76	80	145	30	3.1	190	6.4	32	1.1	3.3	0.8	C6MH2706-*****
80	76	80	145	30	2.8	190	6.1	34	1.2	3.6	0.8	C6MH2806-*****
90	76	80	145	30	2.6	190	5.8	36	1.4	4.2	0.8	C6MH2906-*****
100	76	80	200	30	1.7	140	4.9	48	2.3	6.9	1.1	C6MH2107-*****
133	86	90	200	30	1.5	140	4.4	53	3.1	9.3	1.1	C6MH2A00-*****
150	86	90	200	30	1.4	140	4.2	55	3.5	10.5	1.1	C6MH2157-*****
200	86	90	220	30	1.4	160	3.7	58	3.9	11.7	1.2	C6MH2207-*****
250	86	90	250	30	1.5	190	3.2	59	3.8	11.4	1.4	C6MH2257-*****



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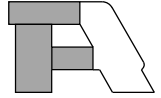
■ 技术参数 Technical data (mm)

螺栓式(Bolt type)

U _{rms} =540Vac U _N =760Vac												
C _N (μF)	D±1 (mm)	D1 _{max} (mm)	H (mm)	P±1 (mm)	R _s (mΩ)	L _s (nH)	R _{th} (K/W)	I _{max} (A)	Î (kA)	Î _s (kA)	M (kg)	Part number
22	76	80	85	30	1.8	80	9.6	29	1.4	4.2	0.4	C6MT1226-*****
33	76	80	105	30	1.8	120	8.3	33	1.4	4.2	0.5	C6MT1336-*****
47	76	80	120	30	2.4	140	7.1	33	1.1	3.3	0.6	C6MT1476-*****
60	76	80	145	30	3.1	190	6.2	33	0.9	2.7	0.7	C6MT1606-*****
68	76	80	145	30	2.8	190	5.9	35	1.0	3.0	0.7	C6MT1686-*****
82	76	80	170	30	1.4	110	4.9	50	2.7	8.1	0.8	C6MT1826-*****
100	86	90	170	30	1.3	110	4.6	54	3.3	9.9	1.0	C6MT1107-*****
120	76	80	250	30	2.1	190	3.8	49	1.8	5.4	1.2	C6MT1127-*****
150	86	90	250	30	1.9	190	3.6	53	2.3	6.9	1.5	C6MT1157-*****
200	96	101	250	30	1.6	190	3.2	58	3.0	9.0	1.9	C6MT1207-*****
250	106	111	250	35	1.4	190	2.9	62	3.8	11.4	2.3	C6MT1257-*****
300	106	111	250	35	1.3	190	2.7	64	4.5	13.5	2.3	C6MT1307-*****

U _{rms} =600Vac U _N =850Vac												
C _N (μF)	D±1 (mm)	D1 _{max} (mm)	H (mm)	P±1 (mm)	R _s (mΩ)	L _s (nH)	R _{th} (K/W)	I _{max} (A)	Î (kA)	Î _s (kA)	M (kg)	Part number
22	76	80	105	30	2.6	120	8.2	28	0.8	2.4	0.5	C6MU1226-*****
33	76	80	120	30	2.7	140	7.1	31	0.8	2.4	0.6	C6MU1336-*****
47	76	80	170	30	2.1	120	5.3	41	1.7	5.1	0.8	C6MU1476-*****
50	76	80	170	30	2.1	120	5.2	42	1.8	5.4	0.8	C6MU1506-*****
60	86	90	170	30	1.9	110	4.8	45	2.2	6.6	1.0	C6MU1606-*****
68	86	90	170	30	1.4	110	4.7	51	2.4	7.2	1.0	C6MU1686-*****
82	86	90	200	30	1.7	140	4.1	52	2.1	6.3	1.2	C6MU1826-*****
100	76	80	250	30	2.2	190	3.5	51	1.6	4.8	1.2	C6MU1107-*****
120	86	90	250	30	1.9	190	3.4	54	2.0	6.0	1.5	C6MU1127-*****
150	96	101	250	30	1.7	190	3.1	57	2.4	7.2	1.9	C6MU1157-*****
180	106	111	250	35	1.6	190	2.8	62	2.9	8.7	2.3	C6MU1187-*****
200	116	121	250	35	1.4	190	2.8	64	3.3	9.9	2.8	C6MU1207-*****

U _{rms} =690Vac U _N =980Vac												
C _N (μF)	D±1 (mm)	D1 _{max} (mm)	H (mm)	P±1 (mm)	R _s (mΩ)	L _s (nH)	R _{th} (K/W)	I _{max} (A)	Î (kA)	Î _s (kA)	M (kg)	Part number
15	76	80	95	30	2.4	100	9.4	25	0.8	2.4	0.5	C6MU2156-*****
22	76	80	105	30	2.4	120	8.1	28	0.9	2.7	0.5	C6MU2226-*****
33	76	80	170	30	2.1	120	6.0	36	1.3	3.9	0.8	C6MU2336-*****
47	86	90	170	30	1.8	110	5.3	42	1.9	5.7	1.0	C6MU2476-*****
60	86	90	200	30	2.0	140	4.6	43	1.7	5.1	1.2	C6MU2606-*****
68	86	90	200	30	1.6	140	4.4	49	1.9	5.7	1.2	C6MU2686-*****
82	86	90	250	30	2.0	190	3.8	48	1.5	4.5	1.5	C6MU2826-*****
100	86	90	250	30	1.8	190	3.5	52	1.8	5.4	1.5	C6MU2107-*****
120	96	101	250	30	1.6	190	3.3	55	2.2	6.6	1.9	C6MU2127-*****
150	106	111	250	35	1.4	190	3.0	59	2.7	8.1	2.3	C6MU2157-*****
200	116	121	250	35	1.3	190	2.8	64	3.3	9.9	2.8	C6MU2207-*****



■ 技术参数 Technical data (mm)

螺栓式(Bolt type)

U _{rms} =760Vac/850Vac* U _N =1 070Vac/1 200Vac												
C _N (μF)	D±1 (mm)	D1 _{max} (mm)	H (mm)	P±1 (mm)	R _s (mΩ)	L _s (nH)	R _{th} (K/W)	I _{max} (A)	Î (kA)	Î _s (kA)	M (kg)	Part number
10	76	80	95	30	2.7	100	8.8	22	0.6	1.8	0.5	C6MW1106-*****
15	76	80	105	30	2.7	120	7.6	26	0.7	2.1	0.5	C6MW1156-*****
22	76	80	145	30	4.4	190	6.3	25	0.5	1.5	0.7	C6MW1226-*****
33	76	80	170	30	1.9	110	4.9	40	1.5	4.5	0.8	C6MW1336-*****
47	86	90	200	30	2.1	140	4.2	43	1.7	5.1	1.2	C6MW1476-*****
68	86	90	250	30	2.0	190	3.4	49	1.4	4.2	1.5	C6MW1686-*****
82	96	101	250	30	1.8	190	3.2	52	1.7	5.1	1.9	C6MW1826-*****
100	96	101	250	30	1.6	190	2.9	56	2.1	6.3	1.9	C6MW1107-*****
150	116	121	250	35	1.5	190	2.6	62	2.9	8.7	2.8	C6MW1157-*****

备注 Note:1. “-” 表示电容量偏差。 “-” = Capacitance tolerance code, J=±5%, K=±10%, 6=-5%~+10%.

2. “*****” 表示内部特征码。 “*****” = Internal use

3. “#” 当额定均方根电压为 760Vac 时，第 4~5 位是 V2。 “#” when the rated RMS voltage is 760Vac, the digit 4~5 is V2.

4. “R_{th}” 是指在自然冷却条件下，电容器热点到环境的热阻。

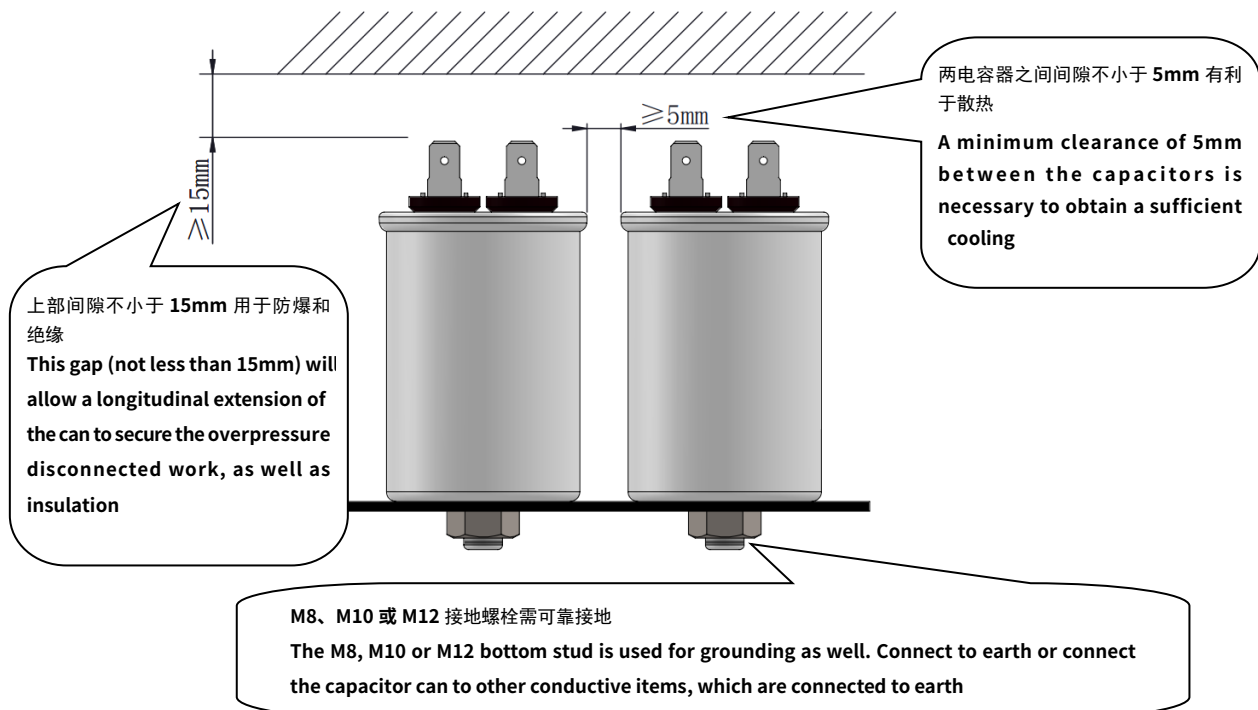
“R_{th}” = R_{th} between hotspot and ambient on natural cooling condition.

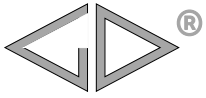
5. I_{max} 可应要求提供更高数值。 For I_{max} higher values available on request.

■ 安装空间要求 Installation space requirements

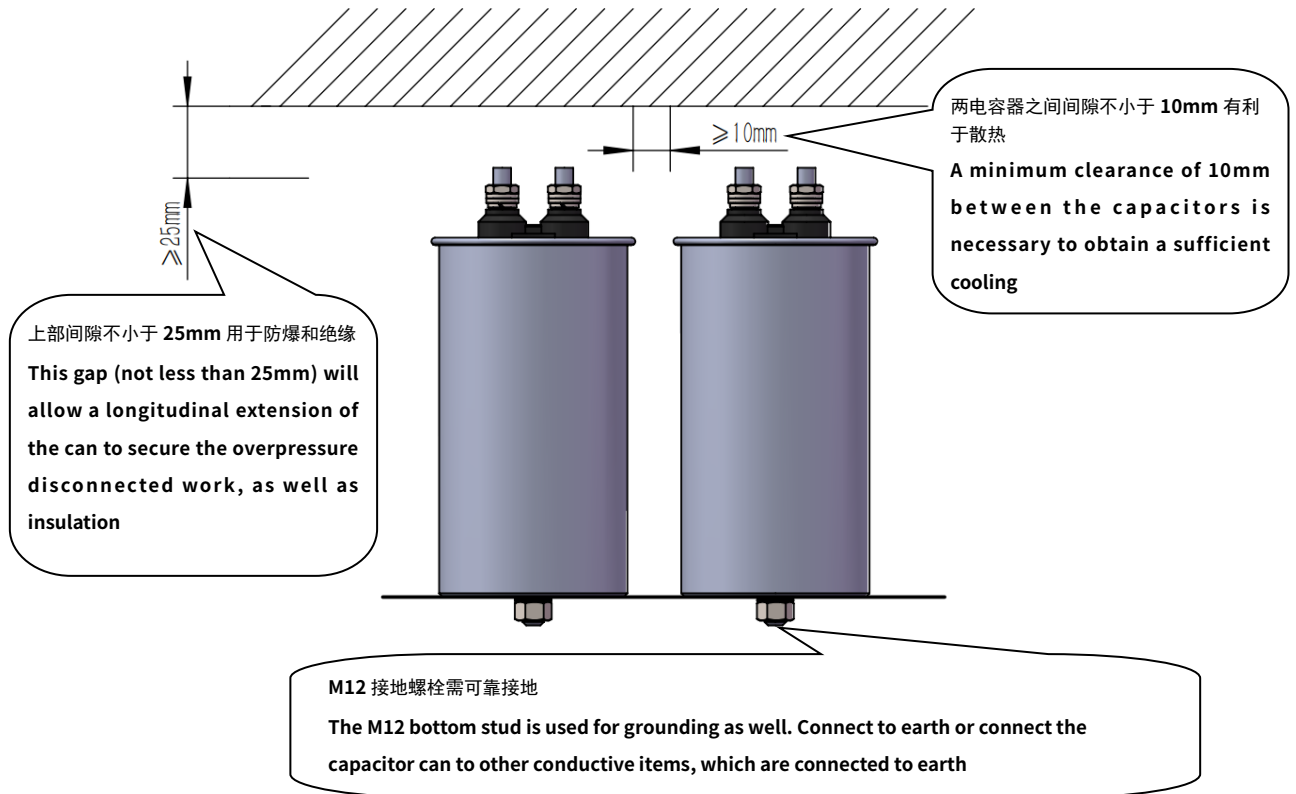
电容要安装在阴凉、通风良好的位置，且其周围不能有热辐射的物体，如滤波电路电抗器、太阳直射。

The capacitor is to be installed at a cool and well-ventilated place, and must not be installed within the range of heat radiating objects, e.g. filter circuit reactors, direct sun radiation.





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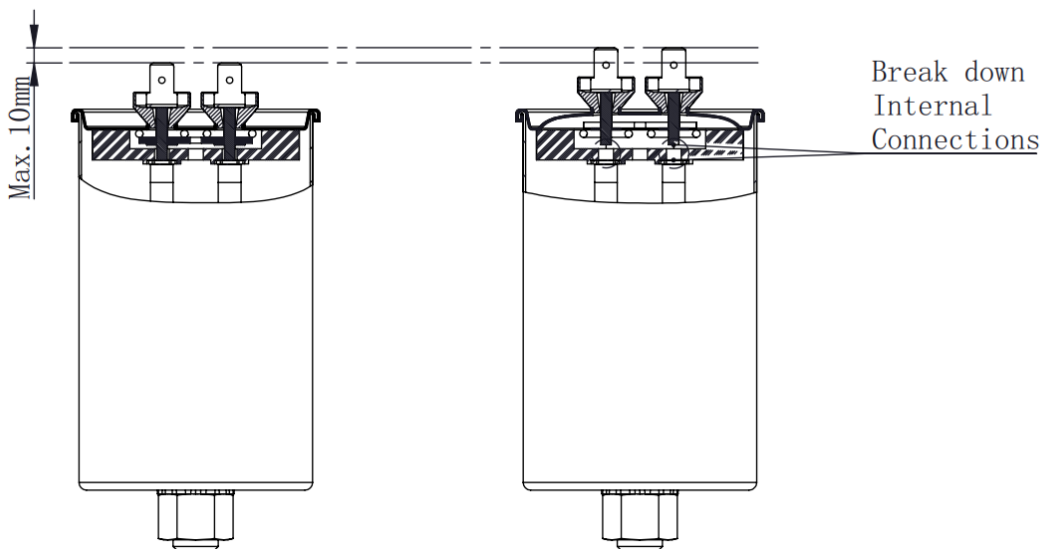


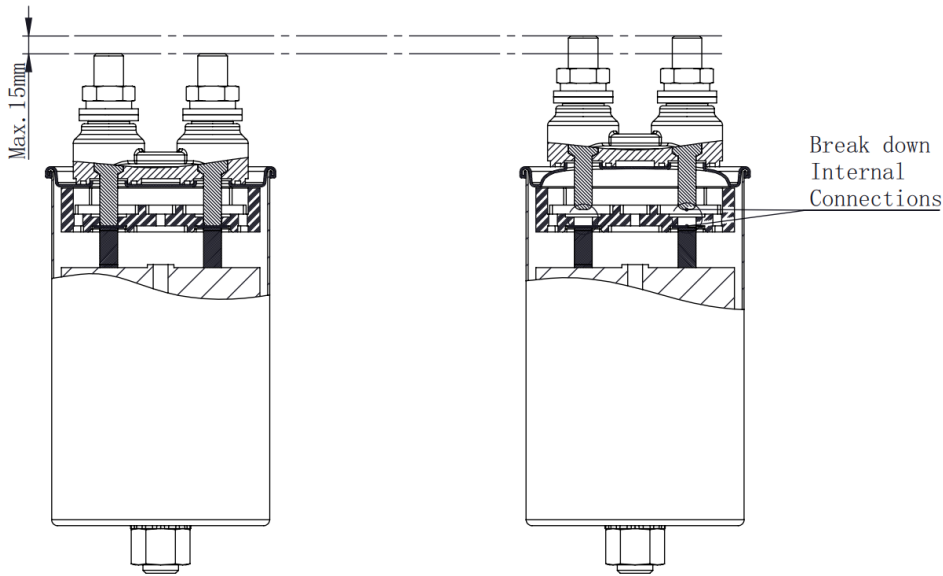
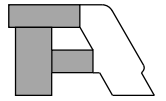
电容主要是通过底部螺栓安装固定，若需要其它安装固定方式，请联系我司技术人员确认。

The capacitor is mainly installed by bolts at the bottom. If you need other installation methods, please contact our technical staff to check.

电容的过压力防护装置需要通过盖面鼓起动作，所以盖面到引出端顶部间不能安装影响防爆动作的其它配件，装置动作前后如下图所示。

The overpressure disconnector of the capacitor is triggered by the cover bulge, so no other components can be installed between the cover and the top of the terminal end that affect the overpressure disconnector action. Before and after the action of the overpressure disconnector is shown in the figure below.





电容必须要垂直安装，且引出端子朝上。

The capacitor must be mounted vertically with the terminal is upward.

■ 连接电缆(以 C6M 螺栓式为例) Connection of the supply cable(Take C6M bolt type as an example)

产品本体（参考外形图的 $\phi D \times H$ ）上部必须保持足够的空间（参考安装空间要求），该空间内不能安装其它组件。

Keep enough space (refer to the outline drawing $\phi D \times H$) on the top of the capacitors (refer to installation space requirements) and no other components can be installed in this space.

连接电缆要使用软性电线并保持松弛，不能用硬芯电缆，若使用母排等连接方式，请联系我司技术人员确认。

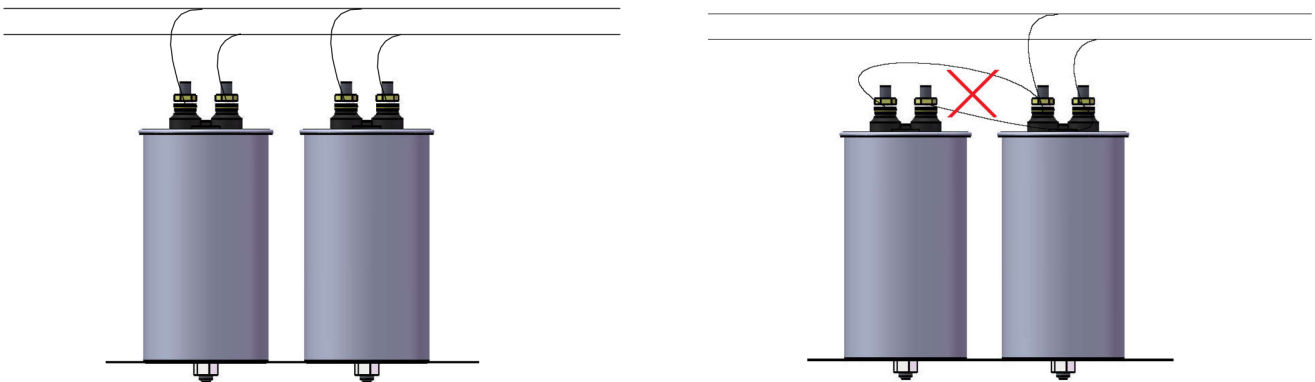
The connection cable shall be of flexible type and keep slack, do not use hard core cable. If using busbar connection or other methods, please contact our technical staff to check.

可根据实际电流值来选择合适的电缆。

According to actual result to choose the appropriate cable.

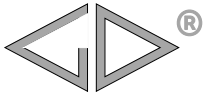
对于多个电容器并联，每个电容器采用直接连接到母线上方式，若有其他连接方式请联系我们。

For capacitors connected in parallel, each capacitor should use independent lead wires, if you have any other connection way please contact us.

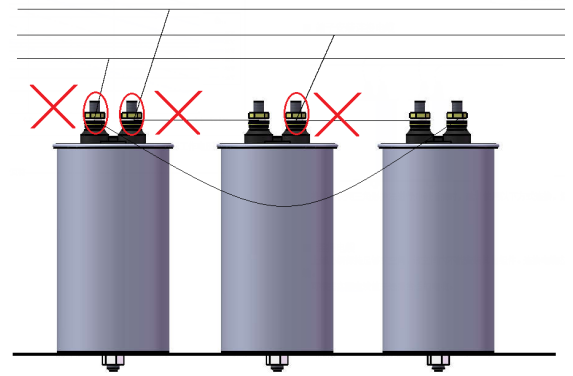
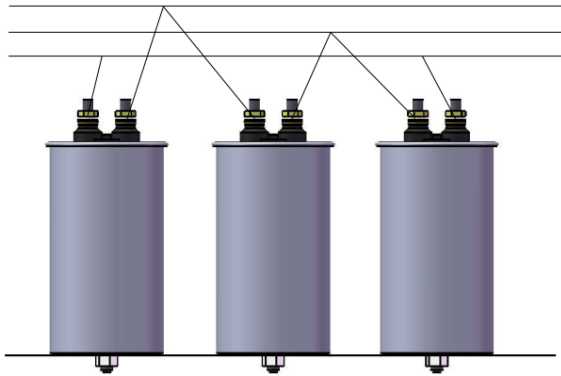


将电容使用三角形接法进行外部连接时，建议使用以下方式连接，避免汇流导致端子过热。

When the capacitors are connected externally by the delta connection method, it is recommended to use the following way connection, avoid terminals overheating due to current confluence.



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■ 安装注意事项 Installation cautions

操作前注意电容器必须充分放电。

Discharge the capacitor completely before operation.

注意端子最大可承受电流，端子总电流不得超出规定的最大值：

Pay attention to the Max. Current on the terminals, the total current on terminals must not go beyond the Max. current by specified:

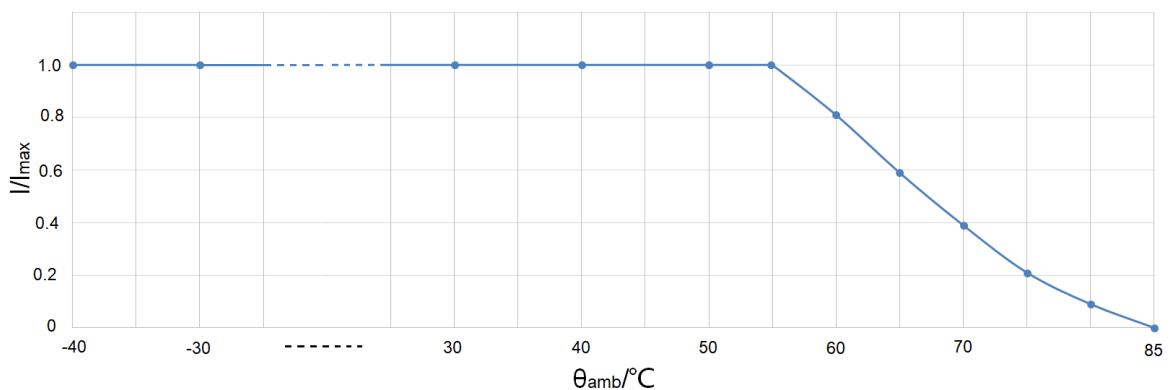
- 焊片式 AMP250#引出端子最大电流为 16A。
The Max. Current on terminals is 16A for tab type AMP250# terminals.
- M6 引出螺栓最大电流为 60A。
The Max. Current on terminals is 60A for Bolt M6 terminals.
- M8 引出螺栓最大电流为 80A。
The Max. Current on terminals is 80A for Bolt M8 terminals.
- M10 引出螺栓最大电流为 100A。
The Max. Current on terminals is 100A for Bolt M10 terminals.

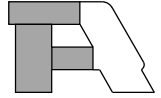
■ 环境温度 Ambient temperature

建议电容使用环境温度 $\leq 55^{\circ}\text{C}$ ；当环境温度 $> 55^{\circ}\text{C}$ 时，随环境温度升高，电容发热功率应逐渐下降，当环境温度达最高温度 85°C 时，电容发热功率为 0W 。电容环境温度的使用，可参照预期寿命曲线和电流随环境温度降额曲线。

The capacitors' working ambient temperature that we recommend is 55°C (or lower). When the ambient temperature exceeds 55°C , considering the ambient temperature rising, the active power of the capacitor should be gradually decreased(When it gets to the highest temperature(85°C), the active power of the capacitor should be decreased to 0 Watt). If you want to know more details about the capacitors' operating temperature, please refers to the expected lifetime curves of capacitors and the current derating curve with ambient temperature.

电流随环境温度降额曲线
Current derating curve with ambient temperature





■ 冲击电流限制 Inrush current limitation

当电容器接入电路或设备切换时可能会出现高幅值和高频率的暂态过电流，暂态过电流可能是额定电流数十倍或更大的冲击电流，但要保证电容器不在电流超过 I_{\max} (最大电流)、 \hat{I} (最大峰值电流)和 \hat{I}_s (最大冲击电流)规定的最大参数值下运行。

Transient overcurrents of high amplitude and frequency may occur when capacitors are switched into the circuit or the equipment is switched. Transient overcurrent may be tens of times the rated current or greater impulse current. However, make sure that the capacitor does not operate with current exceeding the maximum parameters specified by I_{\max} (maximum current), \hat{I} (maximum peak current) and \hat{I}_s (maximum impulse current).

I_{\max} : 连续运行时的最大均方根电流。

I_{\max} : **The maximum RMS current at continuous operation.**

\hat{I} : 在连续运行中出现的最大重复峰值电流，通常持续时间为 ms 级。

\hat{I} : **The maximum repeated peak current that occurs in continuous operation. Usually the duration is ms level.**

\hat{I}_s : 由切换或系统中任何其它扰动所感应的非重复峰值电流，此电流只允许持续比基本周期短的时间和出现有限的次数，通常持续时间为 μs 级且在生命周期内不超过 1 000 次。

\hat{I}_s : **A non-repeating peak current induced by a switch or any other disturbance in the system that is allowed to last only a limited number of times shorter than the base period. Usually the duration is μs level and it occurs not more than 1 000 times in a lifetime.**

■ 谐波 Harmonics

谐波是由于一些非线性电器运行时造成的，这些载荷诸如现代电力电子中的转换器、电气传动、焊接机、备用电源等。谐波由一系列频率为 50Hz 或 60Hz 倍数的正弦电流和电压组成。

Harmonics result from the operation of electrical loads with non-linear voltage-current characteristics. They are caused by loads operated with modern power electronic, such as converters, electrical drives, welding machines and stand-by power supplies. Harmonics are sinusoidal voltages and currents with frequencies that are multiples of a 50Hz or 60Hz power supply frequency.

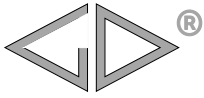
在使用过程中计算产品的温升以及核心热点温度是必要的，若使用过程中理论计算出的电容器热点超出了允许的最高范围，建议检查输入线的电流总谐波畸变率 THD_i ，并按以下要求执行：

It is necessary to calculate the temperature rise of the capacitors from hotspot to case during the using process. If the temperature rise of theoretical calculation of capacitors' hotspot beyond the maximum allowable range, we would propose to check the total harmonic current distortion (THD_i) of the input terminals, and according to the following requirements:

- 当 $I_N \geq 40\text{A}$ 时，建议 $\text{THD}_i \leq 100\%$ 。
When $I_N \geq 40\text{A}$, suggest $\text{THD}_i \leq 100\%$.
- 当 $40\text{A} > I_N \geq 35\text{A}$ 时，建议 $\text{THD}_i \leq 150\%$ 。
When $40\text{A} > I_N \geq 35\text{A}$, suggest $\text{THD}_i \leq 150\%$.
- 当 $35\text{A} > I_N \geq 30\text{A}$ 时，建议 $\text{THD}_i \leq 200\%$ 。
When $35\text{A} > I_N \geq 30\text{A}$, suggest $\text{THD}_i \leq 200\%$.
- 当 $30\text{A} > I_N \geq 25\text{A}$ 时，建议 $\text{THD}_i \leq 250\%$ 。
When $30\text{A} > I_N \geq 25\text{A}$, suggest $\text{THD}_i \leq 250\%$.
- 当 $25\text{A} > I_N \geq 20\text{A}$ 时，建议 $\text{THD}_i \leq 300\%$ 。
When $25\text{A} > I_N \geq 20\text{A}$, suggest $\text{THD}_i \leq 300\%$.
- 当 $I_N < 20\text{A}$ 时，关于 THD_i 的限定，请联系我司技术人员确认。
When $I_N < 20\text{A}$, please contact our technical staff to check the THD_i limit.

(注： I_N 是指额定均方根电压、额定容量条件下的基波电流。)

(Note: I_N is the fundamental current under rated RMS voltage and rated capacity.)



C6M

$$THD_i = \frac{\sqrt{\sum_{n=1}^{\infty} I_n^2}}{I_0} \times 100(\%)$$

(THD_i: 电流总谐波畸变率, I₀: 实际工作的基波电流, I_n: 实际工作的谐波电流)

(THD_i: Total current harmonic distortion, I₀: Actual working fundamental current, I_n: Actual working harmonic current)

■ 安全注意事项 Safety

电容器外壳保持良好和可靠接地。

Maintain good and effective earthing for enclosures of capacitors.

拆装电容器时要确保电容器已放电干净。

Handle capacitor to ensure capacitor has discharge clean.

遵循良好的工程规范。

Follow good engineering practices.

■ 过流/短路保护 Over current/short circuit protection

建议使用限流熔断器或塑壳断路器来进行短路保护。短路保护的元件以及连接电缆需能长时间承受 1.5 倍电容器额定电流。

HRC-fuse or MCCB for short circuit protection is recommended to use. Short circuit protection equipment and connection cable should be selected so that the 1.5 times rated current of the capacitor can be managed permanently.

限流熔断器额定电流值应为正常电容电流的 1.6~1.8 倍。

HRC-fuse rating has to be 1.6 to 1.8 times nominal capacitor current.

使用热磁继电器为过载保护。

Use thermal magnetic overcurrent relays for overload protection.

将电容使用星形接法进行外部连接时, 为了保证三相电压不发生偏压, 建议中性点接地使用。

When the capacitors are connected externally by the star connection method, the neutral point grounding is recommended for keep the three-phase voltage balance.

■ 维护 Maintenance

检查连接线与端子螺丝是否打紧。

Check tightness of Connections/terminals periodically.

定期清理引出端子避免因灰尘或其他可导电的垃圾引起短路。

Clean the terminals periodically to avoid dust or other conductive garbage can cause a short-circuit.

检查短路保护保险丝。

Check short circuit protection fuses.

每半年使用电流钳表或其他在线测电流的工具测量电容器电流。

Every half a year use current clamp table or other on-line measuring tools of current measurement capacitor current.

■ 安装与调试步骤 Installation & commissioning procedures

1. 打开包装箱取出电容

Unpack Capacitor

取电容时请勿直接抓取端子。

Do not touch capacitor terminals by hand directly while taking them

2. 检查电容器外观 (是否有机械损伤)

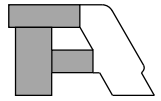
Check Physically

3. 固定好电容器

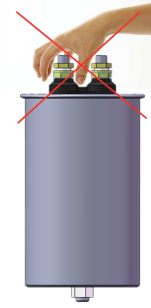
Fixed capacitors



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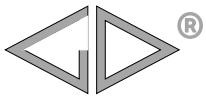
4. 确保使用电容器场合的电压、频率、温度在电容器额定值以下
Ensure for correctness of supply voltage, frequency, temperature
5. 连接好电容器
Connect Capacitor
6. 打开电源开关
Switch on supply
7. 检查主回路的电压与电流是否正常
Check main supply Voltage & current
8. 电容器正常运行
Capacitor is commissioned



■ 预期寿命 Expected lifetime

电容器的应用中，有多种因素会影响到电容器的使用寿命，比如电压、温度、电流、电网谐波、光照或辐射以及其它一些未知的因素。预期寿命仅考虑电压、温度的关系，基于长期耐久性试验的合格结果，再通过预期寿命理论计算公式计算该电容在不同工况下的预期寿命。因此，预期寿命仅作为选型参考，而不代表电容器的实际使用寿命，也不代表质保要求。

For capacitors application, various factors will affect the expected lifetime of capacitors, such as voltage, temperature, current, network harmonics, humidity, lighting or radiation and other unknown factors. The lifetime only considers the relationship between voltage and temperature. Based on the qualified results of long-term durability test, the lifetime curve of the capacitor under different working conditions is calculated by using the theoretical calculation formula of lifetime. Therefore, the lifetime is only used as a reference for selection, and does not represent the actual service life of the capacitor, nor does it represent the quality assurance requirements.



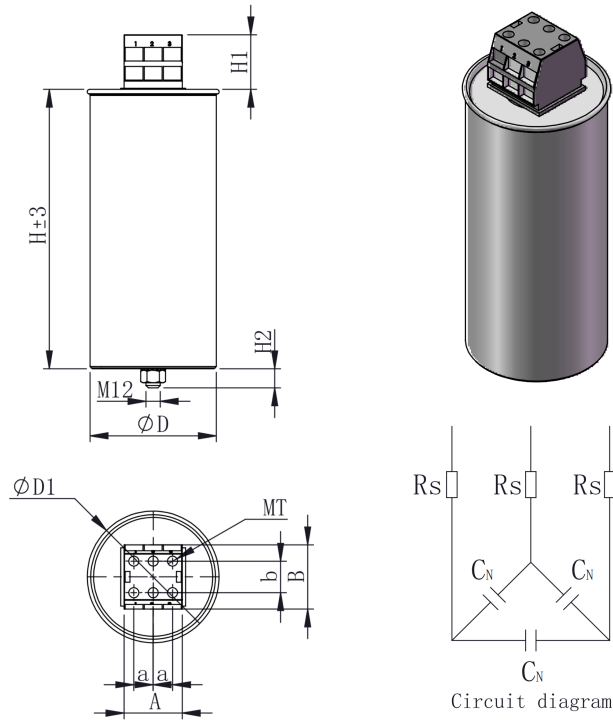
C67

油式三相交流滤波电容器(一体)

Filled type three phase AC filter capacitor(Single case)

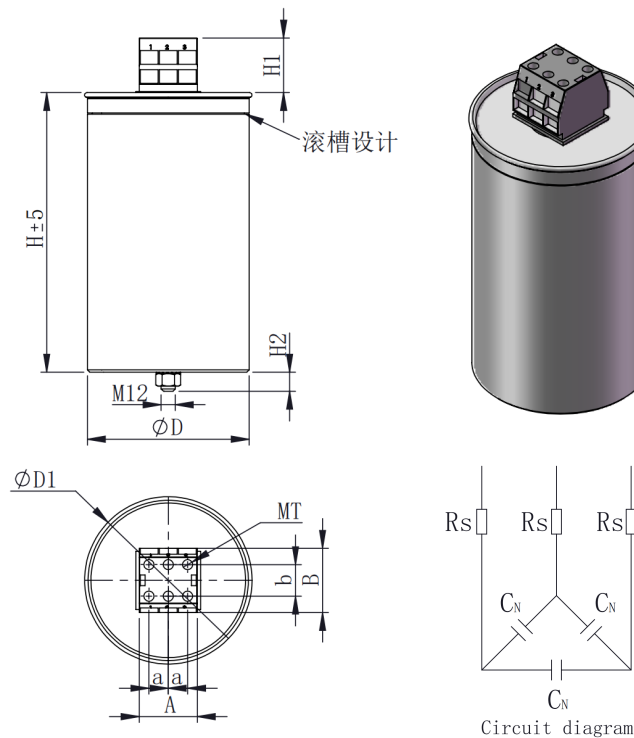
■ 外形图 Outline Drawing

帽式设计(Cap type design)

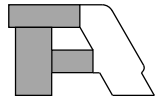


D±1	76~116	136
a±0.5	15	16.5
b±0.5	19.4	25
A±1	43.5	49
B±1	44.5	54.5
H1±2	35	45
H2±1	16	18
MT	M5	M6

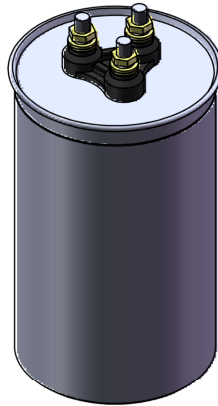
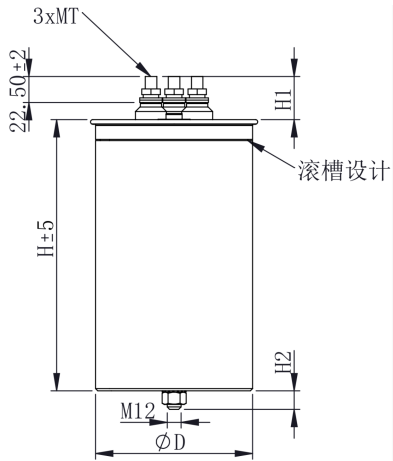
帽式设计(带滚槽设计, D=116~136) Cap type design(Channeling)



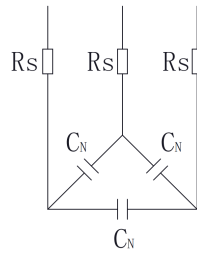
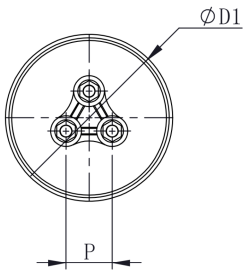
D±1	116	136
a±0.5	15	16.5
b±0.5	19.4	25
A±1	43.5	49
B±1	44.5	54.5
H1±2	35	45
H2±1	16	18
MT	M5	M6



螺栓式设计(Bolt type design)

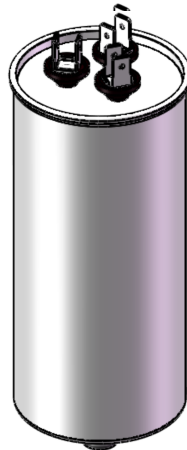
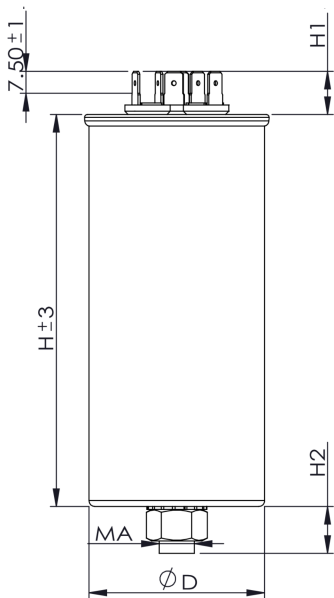


D±1	116	136
H1±1	38	38
H2±2	16	18
P±1	40	40
MT	M8	M8

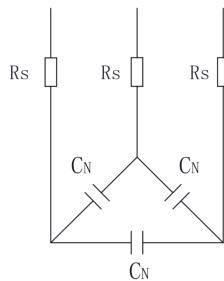
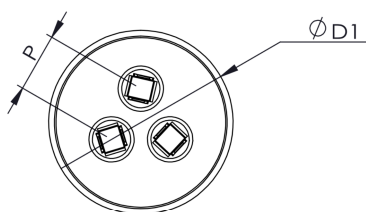


Circuit diagram

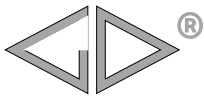
焊片式设计(Tab type design)



D±1	45	55	60
H1±1	12	12	12
H2±1	10	12	16
P±1.5	18	20	20
MA	M8	M10	M12



Circuit diagram



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■ 特点

- 金属化聚丙烯膜设计，自愈性优良
- 防爆设计，过压力保护更安全
- 结构多样化，有帽式、螺栓式、焊片式
- 适用于三相功率因数校正、LCL 滤波，广泛用于风电、光伏等场合

■ Features

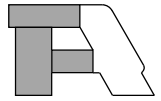
- Metallized polypropylene film design, excellent self-healing property
- Anti-explosion design, overpressure tear-off fuse more safety
- Structural diversity, include cap type design, bolt type design and tab type design
- Suitable for power factor correction and LCL filter, widely used in wind power, photovoltaic and other occasions

■ 安全认证 Safety Approval

● 	TUV Rheinland (德国)	EN 61071:2017, EN 61881-1:2011, U_{rms} : 230Vac ~1 500Vac, U_N : 330Vac ~2 120Vac $3 \times 8\mu F \sim 3 \times 330\mu F$, -40°C/70°C 证书号(Certificate No.): R 50269769
● 	UL/CUL (美国/加拿大)	UL 810, max. 850Vac, 50Hz/60Hz, "Protected", 10 000AFC, max.90°C CSA C22.2.No190, max.660Vac, 50Hz/60Hz, 证书号(File No.): E232771, CCN: CYWT2/8

■ 技术要求 Specifications

引用标准 Reference standard	GB/T 17702 (IEC 61071) Optional: GB/T 12747(IEC 60831)
额定均方根电压 Rated RMS voltage (U_{rms})	230Vac~850Vac(可根据客户要求定制 $U_{rms} \leq 1 300Vac$ 的设计) (The design of $U_{rms} \leq 1 300Vac$ can be customized according to customer requirements)
额定频率 Rated frequency (f_N)	50Hz/60Hz
额定电容量 Rated capacitance (C_N)	$3 \times 8\mu F \sim 3 \times 330\mu F$
电容量偏差 Capacitance tolerance	$\pm 5\%$ (J), $\pm 10\%$ (K), $-5\% \sim +10\%$ (6)
电容内部连接方式 Capacitor internal connection	三角形接法 Delta connection (Δ)
极间耐电压 Test voltage between terminals (U_{T-T})	$2.15U_{rms}$ 或 $1.5U_N$ (50Hz/60Hz), 10s
极壳耐电压 Test voltage between terminals to case (U_{T-C})	4 000Vac(50Hz/60Hz), 10s
绝缘电阻 Insulation resistance ($IR \times C_N$)	$\geq 10 000s$ (20°C, 500V, 1min)
介质损耗角正切 Dielectric dissipation factor ($\tan\delta_d$)	2×10^{-4}
气候类别 Climatic category	40/70/56
可运行温度范围 (热点温度) Operating temperature range (θ_{hs})	-40°C~85°C(建议使用过程中, 保证 $\theta_{hs} \leq 70^\circ C$, 否则会影响寿命) (It is suggested that θ_{hs} should be guaranteed to be less than 70°C in the use process, otherwise the lifetime will be affected)
贮存温度范围 Storage temperature range (θ_s)	-40°C~85°C(若 $\theta_s > 70^\circ C$, 会影响电容寿命) (If $\theta_s > 70^\circ C$, the lifetime will be affected)
预期寿命 Expected lifetime	$ \Delta C/C \leq 5\%$ after 100 000h @ $0.8U_{rms}$, $\theta_{hs} \leq 70^\circ C$
防爆装置 Explosion-proof device	过压力防护装置 Overpressure disconnecter
内部填充料 Internal stuffing	Oil (Non PCB)
冷却方式 Cooling	自然空气或强制制冷 Naturally air-cooled or force cooled
是否有放电电阻 Whether has the discharge resistor	可根据客户要求配置 Configured according to customer requirements



安装 Installation	位置 Position	端子朝上 Terminals upright
	引出端形式 Terminal form	帽式(插头螺栓 M5 或 M6) Cap type(Plug bolt M5 or M6)
		螺栓式 M8 Bolt type M8
		焊片式 AMP250# 插片每边 2 个 Tab type Two AMP250# per side
安装形式 Fixed style	底部螺栓 M8 或 M10 或 M12 Bottom-bolt M8 or M10 or M12	
电极最大扭矩 Max Torque of terminals		2N·m(M5); 3N·m(M6); 6N·m(M8)
最大安装扭矩 Max. Torque of Installation		5N·m(M8); 7N·m(M10); 10N·m(M12)
最高使用海拔 Max. altitude		2 000m: 电流不降额(No derating for current) 2 000m to 5 000m: 电流每 500m 按 3%降额 (Decreasing factor 3% per 500m for current)

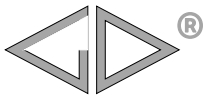
■ 产品编码说明 Part number system

15 位产品代码如下:

The 15 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	6	7												

第 1~3 位	型号代码	Digit 1 to 3	Series code
	C67		C67
第 4~5 位	额定均方根电压	Digit 4 to 5	Rated RMS voltage
	P5=230Vac S1=440Vac T1=540Vac		P5=230Vac S1=440Vac T1=540Vac
	U2=690Vac V2=760Vac K2=800Vac		U2=690Vac V2=760Vac K2=800Vac
	W1=850Vac		W1=850Vac
第 6~8 位	标称容量	Digit 6 to 8	Rated capacitance value
	A to H & J 表示 0.1 to 0.9 举例: 506=50×106pF= 50μF 26E=26.5μF		A to H & J:0.1 to 0.9 for example: 506=50×106 pF= 50μF 26E=26.5μF
第 9 位	容量偏差	Digit 9	Capacitance tolerance
	J=±5%, K=±10%, 6=-5%~+10%		J=±5%, K=±10%, 6=-5%~+10%
第 10~15 位	内部特征码	Digit 10 to 15	Internal use



C67

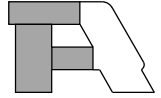
■ 技术参数 Technical data

U _{rms} =230Vac U _N =325Vac											
C _N (μF)	D±1 (mm)	D1 _{max} (mm)	H (mm)	R _s (mΩ)	L _s (nH)	R _{th} (K/W)	I _{max} (A)	Î (kA)	Î _s (kA)	M (kg)	Part number
3×84	76	80	200	3×1.5	100	4.5	3×34	1.6	4.8	1.1	C67P5846-*****
3×105	76	80	230	3×1.6	120	4.0	3×36	1.5	4.5	1.2	C67P5004-*****
3×160	86	90	230	3×1.2	120	3.5	3×43	2.3	6.9	1.6	C67P5167-*****
3×250	116	121	200	3×0.8	110	3.1	3×53	3.0	9.0	2.4	C67P5257-*****
3×330	116	121	230	3×0.9	130	2.7	3×54	4.8	14.4	2.5	C67P5337-*****

U _{rms} =440Vac U _N =625Vac											
C _N (μF)	D±1 (mm)	D1 _{max} (mm)	H (mm)	R _s (mΩ)	L _s (nH)	R _{th} (K/W)	I _{max} (A)	Î (kA)	Î _s (kA)	M (kg)	Part number
3×13	76	80	140	3×1.8	100	6.2	3×22	0.8	2.4	0.9	C67S1136-*****
3×16.5	76	80	140	3×1.5	100	5.6	3×25	1.1	3.3	0.9	C67S116E-*****
3×26.5	76	80	200	3×2.3	100	4.4	3×25	0.8	2.4	1.2	C67S126E-*****
3×33	76	80	200	3×1.9	100	4.0	3×28	1.0	3.0	1.2	C67S1336-*****
3×50	86	90	200	3×1.4	110	3.4	3×34	1.5	4.5	1.4	C67S1506-*****
3×66	86	90	230	3×1.5	120	2.9	3×36	1.4	4.2	1.7	C67S1666-*****
3×83	106	111	200	3×1.1	110	3.1	3×40	2.4	7.2	2.4	C67S1836-*****
3×100	116	121	200	3×1.0	110	2.8	3×43	2.9	8.7	2.4	C67S1107-*****
3×133	136	142	200	3×0.9	120	2.5	3×46	3.9	11.7	3.3	C67S1A00-*****
3×154	136	142	200	3×0.8	120	2.3	3×48	4.0	12.0	3.3	C67S1021-*****
3×170	136	142	230	3×0.9	130	2.2	3×45	4.5	13.5	3.8	C67S1177-*****

U _{rms} =540Vac U _N =760Vac											
C _N (μF)	D±1 (mm)	D1 _{max} (mm)	H (mm)	R _s (mΩ)	L _s (nH)	R _{th} (K/W)	I _{max} (A)	Î (kA)	Î _s (kA)	M (kg)	Part number
3×19	76	80	170	3×1.0	110	5.1	3×32	1.0	3.0	1.0	C67T1196-*****
3×23	76	80	170	3×1.0	110	5.0	3×33	1.2	3.6	1.2	C67T1236-*****
3×39	86	90	200	3×0.9	110	4.0	3×39	1.4	4.2	1.7	C67T1396-*****
3×48	86	90	230	3×1.0	120	3.6	3×40	1.3	3.9	1.9	C67T1486-*****
3×96	136	142	230	3×0.8	130	2.8	3×47	2.6	7.8	3.8	C67T1966-*****

U _{rms} =690Vac U _N =980Vac											
C _N (μF)	D±1 (mm)	D1 _{max} (mm)	H (mm)	R _s (mΩ)	L _s (nH)	R _{th} (K/W)	I _{max} (A)	Î (kA)	Î _s (kA)	M (kg)	Part number
3×33.5	116	121	170	3×0.8	110	3.5	3×42	1.6	4.8	2.2	C67U233E-*****
3×38	116	121	200	3×0.8	110	3.5	3×40	1.3	3.9	2.4	C67U2386-*****



■ 技术参数 Technical data

U _{rms} =760Vac/850Vac [#] U _N =1 070Vac/1 200Vac											
C _N (μF)	D±1 (mm)	D1 _{max} (mm)	H (mm)	R _s (mΩ)	L _s (nH)	R _{th} (K/W)	I _{max} (A)	I _h (kA)	I _s (kA)	M (kg)	Part number
3×8	76	80	170	3×1.3	110	5.6	3×24	0.6	1.8	1.0	C67W1805-*****
3×10	86	90	170	3×1.1	110	5.2	3×27	0.7	2.1	1.0	C67W1106-*****
3×12	86	90	170	3×1.0	110	4.8	3×29	0.9	2.7	1.0	C67W1126-*****
3×17	106	111	170	3×0.9	110	4.3	3×34	1.1	3.3	1.7	C67W1176-*****
3×23	86	90	230	3×1.1	120	3.4	3×37	0.9	2.7	1.6	C67W1236-*****
3×28	106	111	230	3×1.0	130	3.3	3×38	1.0	3.0	2.2	C67W1286-*****
3×33	106	111	230	3×1.0	130	3.0	3×41	1.2	3.6	2.3	C67W1336-*****
3×38	116	121	230	3×0.9	130	2.9	3×42	1.4	4.2	2.8	C67W1386-*****
3×49	136	142	230	3×0.9	130	2.7	3×43	1.9	5.7	3.7	C67W1496-*****
3×55.8	136	142	230	3×0.8	130	2.5	3×45	2.2	6.6	3.8	C67W155H-*****

备注 Note: 1. “-”表示容量偏差。 “-”=capacitance tolerance code.

2. “*****”表示内部特征码, 请联系技术工程师确认完整代码。

“*****” = Internal use, please contact the technical engineer to confirm the complete code.

3. “#”当额定均方根电压为 760Vac 时, 第 4~5 位是 V2。

“#” when the rated RMS voltage is 760Vac, the digit 4~5 is V2.

4. “R_{th}”是指在自然冷却条件下, 电容器热点到环境的热阻。

“R_{th}” = R_{th} between hotspot and ambient on natural cooling condition.

5. “I_{max}”为通过电容器接线端子的最大电流, 表格中数值是基于温升不超过 30°C 计算所得, 其值必须小于端子所能承受的载流能力; 建议使用过程中电容器的最热点温度不超过 70°C, 必要时采取强制冷却措施。

“I_{max}” = The maximum current passing through the terminal of the capacitor. The value in the table is calculated based on the temperature rise not exceeding 30°C, and its value must be less than the current carrying capacity of the terminal. Recommend the most hot spot temperature does not exceed 70°C, forced cooling measures when necessary.

6. 如需星型接法、螺栓式(U_{rms}≤600Vac)设计产品, 请联系技术工程师。

If need star connection, bolts, tabs(U_{rms}≤600Vac) design, please contact our technical engineer.

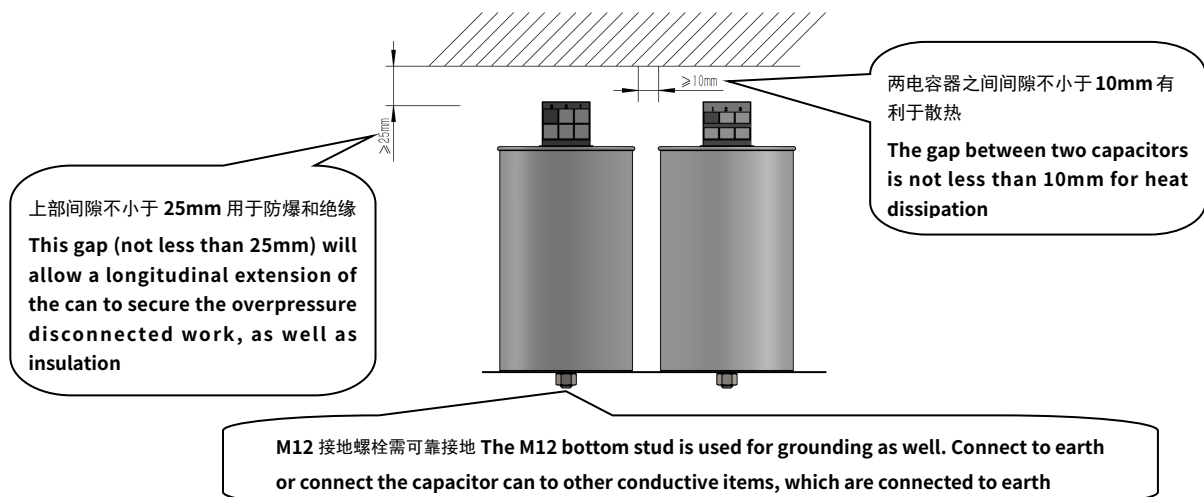
7. 直径 116 和 136 的新设计均会采用滚槽设计。

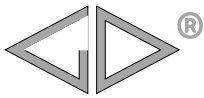
The new designs with diameters 116 and 136 will adopt the channeling design.

■ 安装空间要求(以帽式设计为例) Installation space requirements (Take cap type design as an example)

电容要安装在阴凉、通风良好的位置, 且其周围不能有热辐射的物体, 如滤波电路电抗器、太阳直射。

The capacitor is to be installed at a cool and well-ventilated place, and must not be installed within the range of heat radiating objects, e.g. filter circuit reactors, direct sun radiation.





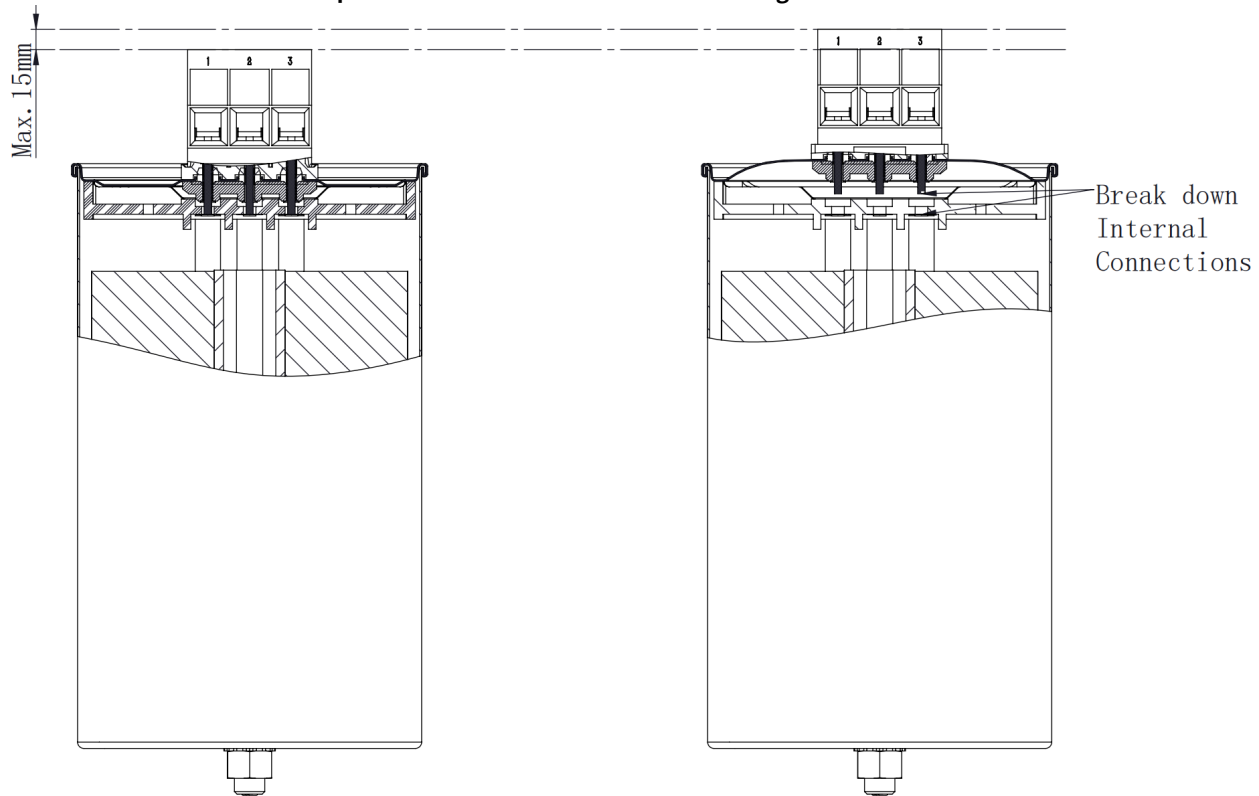
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电容主要是通过底部螺栓安装固定，若需要其它安装固定方式，请联系我司技术人员确认。

The capacitor is mainly installed by bolts at the bottom. If you need other installation methods, please contact our technical staff to check.

电容的过压力防护装置需要通过盖面鼓起动作，所以盖面到引出端顶部间不能安装影响防爆动作的其它配件，装置动作前后如下图所示。

The overpressure disconnecter of the capacitor is triggered by the cover bulge, so no other components can be installed between the cover and the top of the terminal end that affect the overpressure disconnecter action. Before and after the action of the overpressure disconnecter is shown in the figure below.



电容必须要垂直安装，且引出端子朝上。

The capacitor must be mounted vertically with the terminal is upward.

■ 连接电缆(以帽式设计为例) Connection of the supply cable(Take cap type design as an example)

产品本体（参考外形图的 $\phi D \times H$ ）上部必须保持足够的空间（参考安装空间要求），该空间内不能安装其它组件。

Keep enough space (refer to the outline drawing $\phi D \times H$) on the top of the capacitors (refer to installation space requirements) and no other components can be installed in this space.

连接电缆应使用软性电线并保持松弛，不要用硬芯电缆，若使用母排等连接方式，请联系我司技术人员确认。

The connection cable shall be of flexible type and keep slack, do not use hard core cable. If using busbar connection or other methods, please contact our technical staff to check.

对于帽式设计，可安装的最大引线截面积为 $16\text{mm}^2(\text{M5})/25\text{mm}^2(\text{M6})$ ，可根据实际电流值来选择合适的电缆。

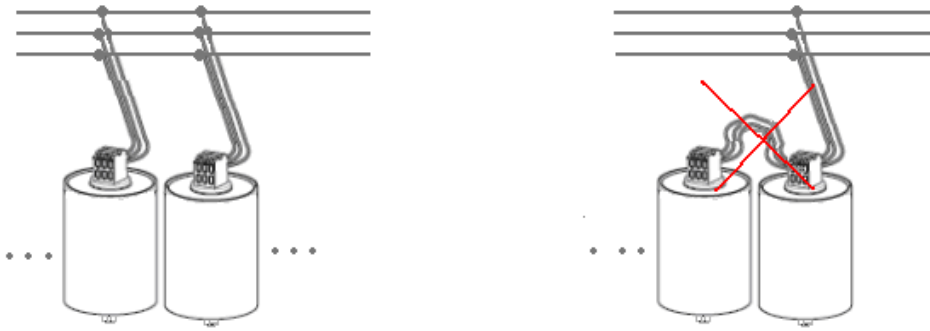
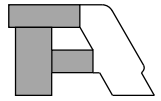
For the cap type design, maximum cable cross section is $16\text{mm}^2(\text{M5})/25\text{mm}^2(\text{M6})$, according to actual result to choose the appropriate cable.

对于螺栓式设计，根据实际电流值来选择合适的电缆。

For the bolt type design, according to actual result to choose the appropriate cable.

以帽式设计为例，对于多个电容器并联，每个电容器采用直接连接到母线上方式，若有其它连接方式请联系我们。

Take cap type design as an example, for capacitors connected in parallel, each capacitor should use independent lead wires, if you have any other connection way please contact us.



■ 安装注意事项 Installation cautions

操作前注意电容器必须充分放电。

Discharge the capacitor completely before operation.

注意端子最大可承受电流，端子总电流不得超出规定的最大值：

Pay attention to the Max. Current on the terminals, the total current on terminals must not go beyond the Max. current by specified:

● M8 引出螺栓最大电流为 80A。

The maximum current of the M8 lead bolt is 80A.

● M6 插头螺栓的引出端子最大电流为 60A。

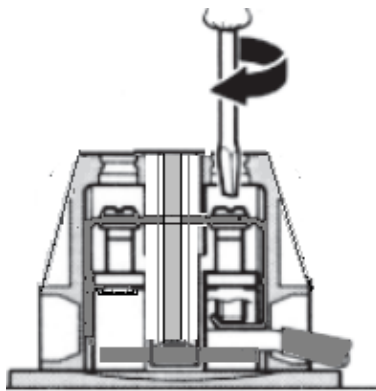
The maximum current of M6 plug bolt is 60A.

● M5 插头螺栓的引出端子最大电流为 45A。

The maximum current of M5 plug bolt is 45A.

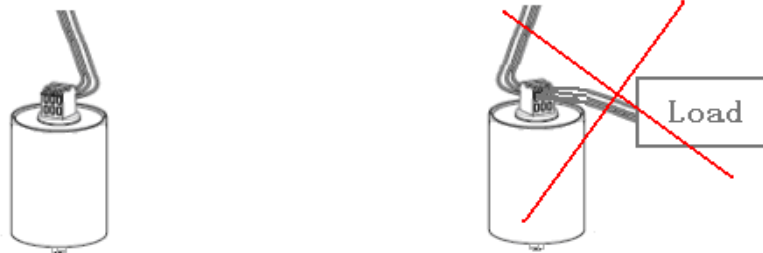
对于帽式设计，安装引出端子推荐使用一字螺丝刀，刀腿的直径小于防护盖孔以方便插入防护盖上的孔。

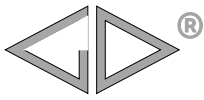
For the cap type design, recommend to using a slotted screwdriver to install the terminals.



以帽式设计为例，电容器均只能作为一个独立的分支，不能在电容器的一端连接负载（放电电阻除外）。

Take cap type design as an example, each capacitor is only used as an independent subfield, and not connected the load in the terminals(Except discharge resistors).





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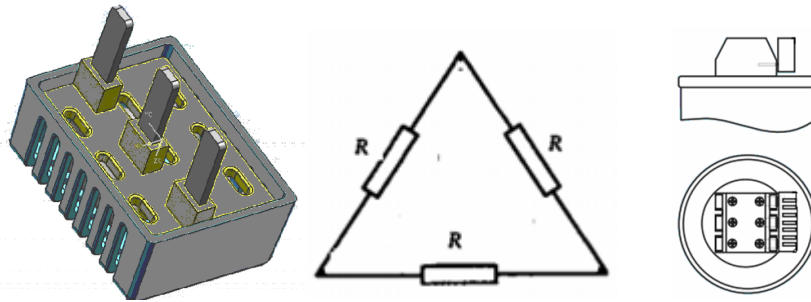
■ 放电电阻连接 Connection of the discharge resistors

当用户有需求时，应提供将每一电容器单元或电容器组在 10min 之内从工作电压放电到 75V 或更低电压的装置。

When required by the user, each capacitor unit or bank shall be provided with means for discharging each unit in 10 min to 75 V or less, from a working voltage U_N .

放电电阻用于对电容器进行放电以保护人免受电击的危险，同时也在自动 PFC 装置内电容器进行切换时放电。

Discharge resistors are required for discharging capacitor for protection of human being (Electric shock risk), and for re-switching capacitors in automatic PFC equipment (Phase opposition).



C67 帽式设计电容器系列有可选配的放电电阻，其配套的放电电阻能满足在 3min 内使电容器放电到 75V 或更低电压，放电电阻值的计算可以按如下公式：

Capacitors of the C67 series (cap type design) are fitted with discharge resistors for a discharge <75V within <180s, the resistors to be used can be calculated with the following formula:

$$R \leq \frac{T}{k \times C \times I_n \frac{U_N \times \sqrt{2}}{U}}$$

T: 放电时间 Discharge time

C: 每一相的容量 Capacitance of one phase

U_w : 实际工作电压 Operating voltage

U: 最大允许的残留电压

Maximum permissible voltage after discharging

k: 系数，内部使用 Δ 接法， $k=1$ ；内部使用 Y 接法， $k=1/3$ 。

Coefficient, if delta connection, $k=1$; if star connection, $k=1/3$.

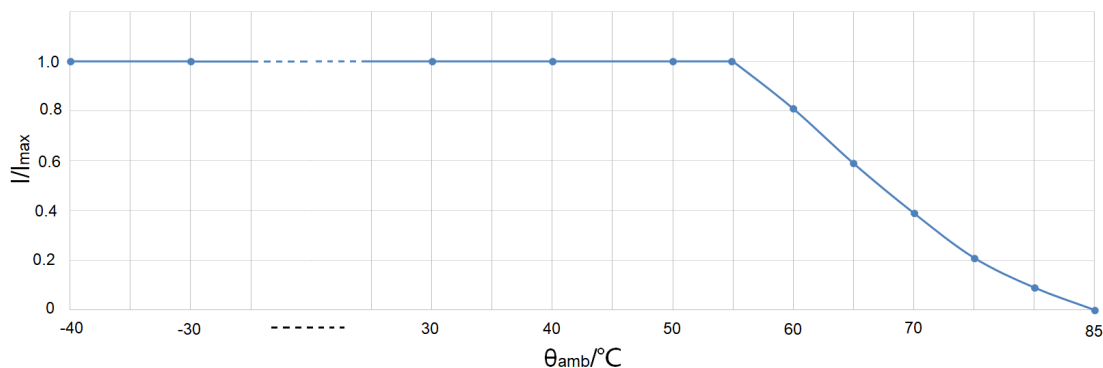
■ 环境温度 Ambient temperature

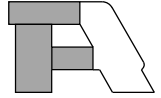
建议电容使用环境温度 $\leq 55^\circ\text{C}$ ；当环境温度 $> 55^\circ\text{C}$ 时，随环境温度升高，电容发热功率应逐渐下降(当环境温度达最高温度 85°C 时，电容发热功率为 0W)。电容环境温度的使用，可参照预期寿命和电流随环境温度降额曲线。

The capacitors' working ambient temperature that we recommend is 55°C (or lower). When the ambient temperature exceeds 55°C , with the ambient temperature rising, the active power of the capacitor should be gradually decreased (When it gets to the highest temperature (85°C), the active power of the capacitor should be decreased to 0 Watt). If you want to know more details about the operating temperature of capacitors, please refers to the expected lifetime of capacitors and the current derating curve with ambient temperature.

电流随环境温度降额曲线

Current derating curve with ambient temperature





■ 冲击电流限制 Inrush current limitation

当电容器接入电路或设备切换时可能会出现高幅值和高频率的暂态过电流，暂态过电流可能是额定电流数十倍或更大的冲击电流，但要保证电容器不在电流超过 I_{\max} （最大电流）、 \hat{I} （最大峰值电流）和 \hat{I}_s （最大冲击电流）规定的最大参数值下运行。

When the capacitor is connected to the circuit or device switch may appear high amplitude and high frequency transient current, transient currents may be rated current several times or greater impact current, but to ensure that the capacitor is not current exceeds I_{\max} (maximum current), \hat{I} (maximum peak current), and \hat{I}_s (maximum impact current) the biggest parameter values regulations.

I_{\max} : 连续运行时的最大均方根电流。

I_{\max} : the maximum RMS current at continuous operation.

\hat{I} : 在连续运行中出现的最大重复峰值电流，通常持续时间为 ms 级。

\hat{I} : the maximum repeated peak current that occurs in continuous operation. Usually the duration is ms level.

\hat{I}_s : 由切换或系统中任何其它扰动所感应的非重复峰值电流，此电流只允许持续比基本周期短的时间和出现有限的次数，通常持续时间为 μ s 级且在生命周期内不超过 1 000 次。

\hat{I}_s : a non-repeating peak current induced by a switch or any other disturbance in the system that is allowed to last only a limited number of times shorter than the base period. Usually the duration is μ s level and it occurs not more than 1 000 times in a lifetime.

■ 谐波 Harmonics

谐波是由于一些非线性电器运行时造成的，这些载荷诸如现代电力电子中的转换器、电气传动、焊接机、备用电源等。

Harmonics result from the operation of electrical loads with non-linear voltage-current characteristics. They are caused by loads operated with modern power electronic, such as converters, electrical drives, welding machines and standby power supplies.

纹波由一系列频率为 50Hz 或 60Hz 倍数的正弦电流和电压组成。

Harmonics are sinusoidal voltages and currents with frequencies that are multiples of a 50Hz or 60Hz power supply frequency.

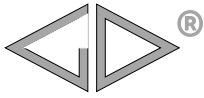
在使用过程中计算产品的温升以及核心热点温度是必要的，若使用过程中理论计算出的电容器热点超出了允许的最高范围，建议检查输入线的电流总谐波畸变率 THD_i ，并按以下要求执行：

It is necessary to calculate the temperature rise of the capacitors from hotspot to case during the using process. If the temperature rises of theoretical calculation of capacitors' hotspot beyond the maximum allowable range, we would propose to check the total harmonic current distortion (THD_i) of the input terminals, and according to the following requirements:

- 当 $I_N \geq 40A$ 时，建议 $THD_i \leq 50\%$ 。
When $I_N \geq 40A$, suggest $THD_i \leq 50\%$.
- 当 $40A > I_N \geq 35A$ 时，建议 $THD_i \leq 100\%$ 。
When $40A > I_N \geq 35A$, suggest $THD_i \leq 100\%$.
- 当 $35A > I_N \geq 25A$ 时，建议 $THD_i \leq 200\%$ 。
When $35A > I_N \geq 25A$, suggest $THD_i \leq 200\%$.
- 当 $25A > I_N \geq 15A$ 时，建议 $THD_i \leq 250\%$ 。
When $25A > I_N \geq 15A$, suggest $THD_i \leq 250\%$.
- 当 $I_N < 15A$ 时，关于 THD_i 的限定，请联系我司技术人员确认。
When $I_N < 15A$, please contact our technical staff to check the THD_i limit.

(注: I_N 是指额定均方根电压、额定容量条件下的基波电流。)

(Note: I_N is the fundamental current under rated RMS voltage and rated capacity.)



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$$THD_i = \frac{\sqrt{\sum_{n=1}^{\infty} I_n^2}}{I_0} \times 100(\%)$$

(THD_i: 电流总谐波畸变率; I₀: 实际工作的基波电流; I_n: 实际工作的谐波电流)

(THD_i: Total current harmonic distortion; I₀: Actual working fundamental current;

I_n: Actual working harmonic current)

■ 安全注意事项 Safety

电容器外壳保持良好和可靠接地。

Maintain good and effective earthing for enclosures of capacitors.

拆装电容器时要确保电容器已放电干净。

Handle capacitor to ensure capacitor has discharge clean.

遵循良好的工程规范。

Follow good engineering practices.

■ 过流/短路保护 Over current/short circuit protection

建议使用限流熔断器或塑壳断路器进行短路保护。短路保护的元件以及连接电缆需能长时间承受 1.5 倍电容器额定电流。

HRC-fuse or MCCB for short circuit protection is recommended to use. Short circuit protection equipment and connection cable should be selected so that the 1.5 times rated current of the capacitor can be managed permanently.

限流熔断器额定电流值应为正常电容电流的 1.6~1.8 倍。

HRC-fuse rating has to be 1.6 to 1.8 times nominal capacitor current.

使用热磁继电器为过载保护。

Use thermal magnetic overcurrent relays for overload protection.

■ 维护 Maintenance

检查连接线与端子螺丝是否打紧。

Check tightness of Connections/terminals periodically.

定期清理引出端子避免因灰尘或其它可导电的垃圾引起短路。

Clean the terminals periodically to avoid dust or other conductive garbage can cause a short-circuit.

检查短路保护保险丝。

Check short circuit protection fuses.

每半年使用电流钳表或其它在线测电流的工具测量电容器电流。

Every half a year use current clamp table or other on-line measuring tools of current measurement capacitor current.

检查放电电阻是否正常工作，可以通过电容器先上电后断开 3min 后测量电容器的电压是否降至 75V 以下来进行判断。

To check whether the discharge resistance is working normally, it can be judged by measuring whether the voltage of the capacitor drops to 75V after the capacitor is turned on first and disconnected for 3 minutes.

■ 安装与调试步骤 Installation & commissioning procedures

1、打开包装箱取出电容

Unpack Capacitor

取电容时请勿直接抓取端子

Do not touch capacitor terminals by hand directly while taking them

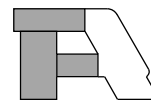
2、检查电容器外观（是否有机械损伤）

Check Physically

3、固定好电容器

Fixed capacitors



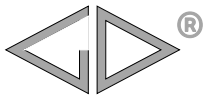


- 4、确保使用电容器场合的电压、频率、温度在电容器额定值以下
Ensure for correctness of supply voltage, frequency, temperature
- 5、连接好电容器
Connect Capacitor
- 6、打开电源开关
Switch on supply
- 7、检查主回路的电压与电流是否正常
Check main supply Voltage & current
- 8、电容器正常运行
Capacitor is commissioned

■ 预期寿命 Expected lifetime

电容器的应用中，有多种因素会影响到电容器的使用寿命，比如电压、温度、电流、电网谐波、湿度、光照或辐射以及其它一些未知的因素。预期寿命仅考虑电压、温度的关系，基于长期耐久性试验的合格结果，再通过预期寿命理论计算公式计算该电容在不同工况下的预期寿命。因此，预期寿命仅作为选型参考，而不代表电容器的实际使用寿命，也不代表质保要求。

For capacitors application, various factors will affect the expected lifetime of capacitors, such as voltage, temperature, current, network harmonics, humidity, lighting or radiation and other unknown factors. The lifetime only considers the effects of voltage and temperature. Based on the qualified results of long-term durability test, the lifetime curve of the capacitor under different working conditions is calculated by using the theoretical calculation formula of lifetime. Therefore, the lifetime is only used as a reference for selection, and does not represent the actual service life of the capacitor, nor does it represent the quality assurance requirements.



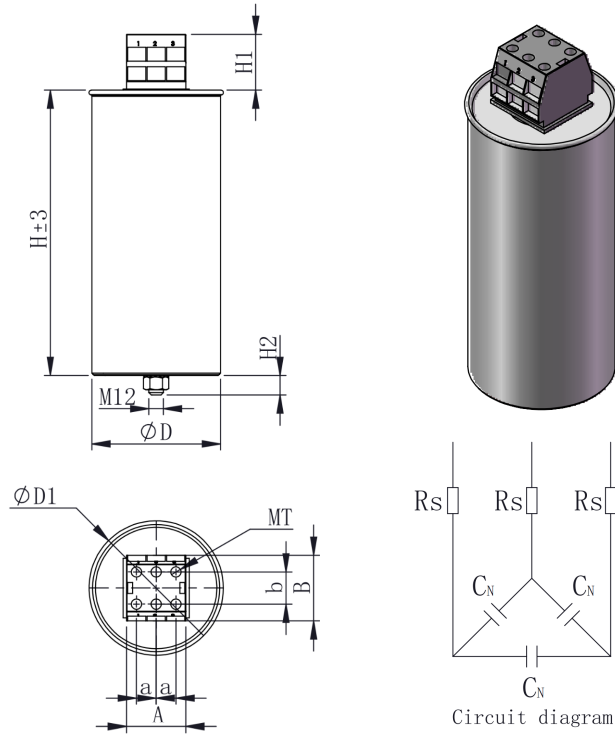
C6S

干式无功功率补偿电容器

Dry type power factor correction capacitors

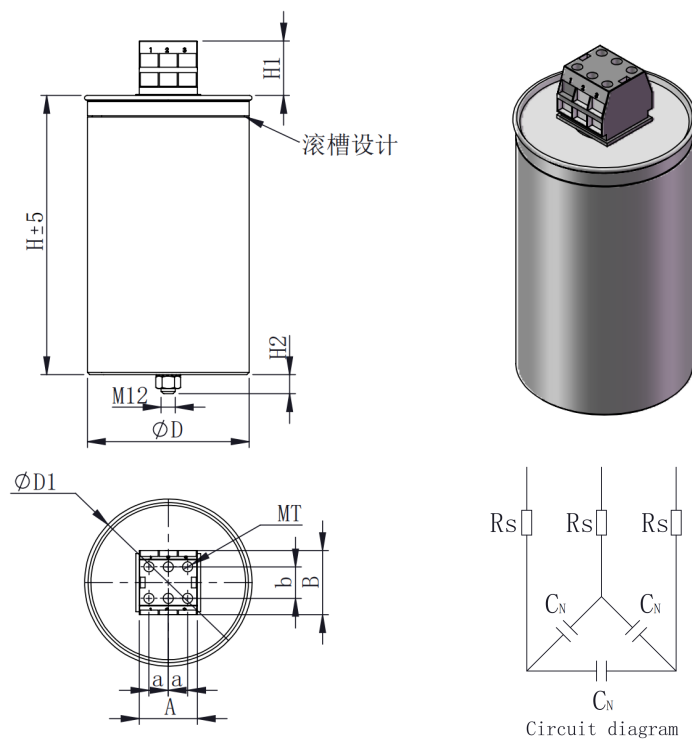
■ 外形图 Outline Drawing

帽式设计, Δ 接法(无滚槽设计, $D=76\sim 106$) Cap type design, delta connection(Without channeling)

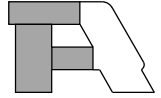


$D \pm 1$	76~106
$a \pm 0.5$	15
$b \pm 0.5$	19.4
$A \pm 1$	43.5
$B \pm 1$	44.5
$H1 \pm 2$	35
$H2 \pm 1$	16
MT	M5

帽式设计, Δ 接法(带滚槽设计, $D=116\sim 136$) Cap type design, delta connection(Channeling)

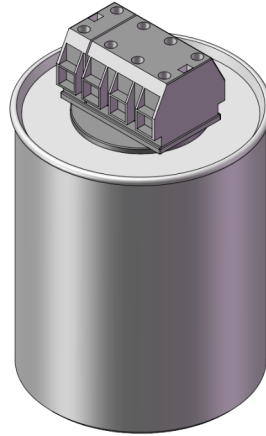
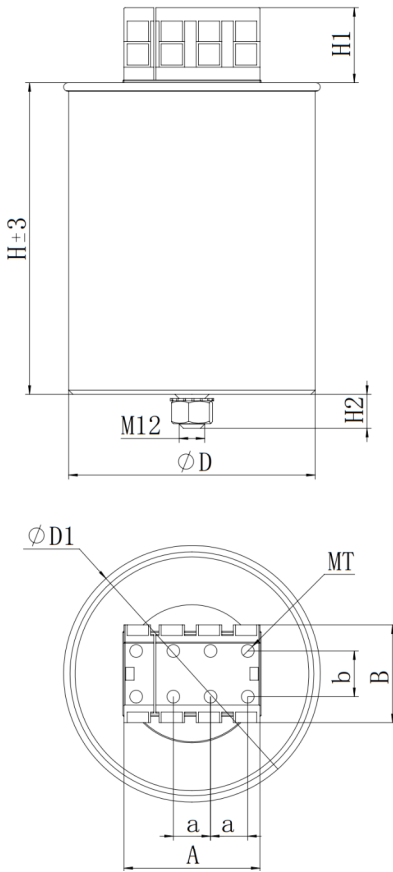


$D \pm 1$	116	136
$a \pm 0.5$	15	16.5
$b \pm 0.5$	19.4	25
$A \pm 1$	43.5	49
$B \pm 1$	44.5	54.5
$H1 \pm 2$	35	45
$H2 \pm 1$	16	18
MT	M5	M6

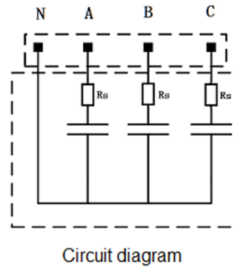


帽式设计, Y接法(无滚槽设计, D=116~136)

Cap type design, star connection, neutral brought out(Without channeling)



D±1	116~136
a±0.5	15.0
b±0.5	19.4
A1±1	58.4
B1±1	44.5
H1±2	35
H2±1	16
MT	M5

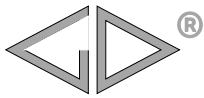


■ 特点

- 金属化聚丙烯膜设计, 自愈性优良
- 防爆设计, 过压力保护更安全
- 干式树脂填充, 树脂阻燃等级 **UL94 V-0**
- 干式结构, 无漏液风险, 安装方向更灵活
- 适用于交流电力系统的功率因数校正, 提高低压电网的功率因素, 广泛用于工厂、住宅楼等场合的无功功率补偿柜

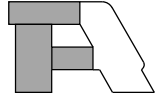
■ Features

- Metallized polypropylene film design, excellent self-healing property
- Anti-explosion design, overpressure tear-off fuse more safety
- Dry resin filling, flame retardant grade **UL94 V-0**
- Dry type structure, no leakage risk, more flexible installation direction
- Suitable for AC power system power factor correction, improve the power factor of low voltage grid, widely used in factories, houses and other occasions reactive power compensation cabinet



■ 技术要求 Specifications

引用标准 Reference Standard	GB/T 12747.1/2 (IEC 60831-1/2)	
额定电压 Rated Voltage (U_N)	440Vac ~ 525Vac (可根据客户要求定制 $U_N \leq 690$ Vac 的设计) (The design of $U_N \leq 690$ Vac can be customized according to customer requirements)	
最高允许电压 Maximum permissible voltage	1.00 U_N , 连续 Continuous 1.10 U_N , 每 24h 中 8h 8 h in every 24 h 1.15 U_N , 每 24h 中 30min 30 min in every 24 h 1.20 U_N , 5min 1.30 U_N , 1min 注: 高于 1.15 U_N 的过电压在电容器的整个使用寿命期间总共不超过 200 次。 Note: The overvoltages higher than 1.15 U_N does not exceed a total of 200 times in the lifetime of the capacitor.	
额定频率 Rated Frequency (f_N)	50Hz/60Hz	
额定容量 Rated output (Q_N)	5kvar ~ 50kvar	
额定电容 Rated capacitance (C_N)	50 μ F ~ 500 μ F	
最大允许电流 Maximum permissible current	$\leq 1.43I_N$ (I_N 是额定交流电流方均根值) (I_N is the rated r.m.s. value of the alternating current)	
电容容量偏差 Capacitance Tolerance	$\pm 5\%$ (J), $\pm 10\%$ (K), $-5\% \sim +10\%$ (6)	
电容内部连接方式 Capacitor internal connection	三角形接法 (Δ)或星型接法, 中性点引出(Υ) Delta connection (Δ)or star connection, neutral brought out(Υ)	
极间耐电压 Test voltage between Terminals(U_{T-T})	2.15 U_N (50Hz/60Hz), 10s	
极壳耐电压 Test voltage between terminals to case(U_{T-C})	3 000Vac(50Hz/60Hz), 10s	
绝缘电阻 Insulation Resistance($IR \times C_N$)	$\geq 10\,000s$ (20 $^{\circ}$ C, 500V, 1min)	
介质损耗角正切 Dielectric dissipation factor ($\tan \delta_d$)	2×10^{-4}	
环境空气温度类别 Ambient air temperature categories	-40/D	
可运行温度范围(热点温度) Operating temperature range(θ_{hs})	-40 $^{\circ}$ C~85 $^{\circ}$ C	
贮存温度范围 Storage Temperature range(θ_s)	-40 $^{\circ}$ C~70 $^{\circ}$ C	
预期寿命 Expected lifetime	$ \Delta C/C \leq 5\%$ after 30 000h @ U_N , $\theta_{hs} \leq 70^{\circ}$ C	
防爆装置 Explosion-proof device	过压力防护装置 Overpressure disconnector	
内部填充料 Internal stuffing	干式聚氨酯 (PU)Polyurethane	
冷却方式 Cooling	自然空气或强制冷却 Naturally air-cooled or force cooled	
是否有放电电阻 Whether has the discharge resistor	配电阻, 已预安装 Yes, resistor pre-installed	
安装 Installation	位置 Position	任意方向 Any direction
	引出端形式 Terminal form	帽式(插头螺栓 M5 或 M6) Cap type (Plug bolt M5 or M6)
	安装形式 Fix style	底部螺栓 M12 Bottom-bolt M12
电极最大扭矩 Max. Torque of terminals	2N·m (M5); 3N·m (M6)	
最大安装扭矩 Max. Torque of Installation	10N·m (M12)	
最高使用海拔 Max. altitude	2 000m	



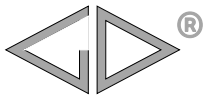
■ 产品编码说明 Part number system

15 位产品代码如下:

The 15 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	6	S												

第 1~3 位	型号代码	Digit 1 to 3	Series code
	C6S		C6S
第 4~5 位	额定电压	Digit 4 to 5	Rated voltage
	S1=440Vac S3=480Vac T6=525Vac		S1=440Vac S3=480Vac T6=525Vac
第 6~8 位	标称容量	Digit 6 to 8	Rated capacitance value
	A to H & J 表示 0.1 to 0.9		A to H & J:0.1 to 0.9
	举例: 506=50×106pF= 50μF		for example: 506=50×106 pF= 50μF
	26E=26.5μF		26E=26.5μF
第 9 位	容量偏差	Digit 9	Capacitance tolerance
	J=±5%, K=±10%, 6=-5%~+10%		J=±5%, K=±10%, 6=-5%~+10%
第 10 位	产品特征码	Digit 10	Product characteristic code
	J:△接法, M: Y 接法		J:△connection, M: Y connection
第 11~15 位	内部特征码	Digit 11 to 15	Internal use



C6S

■ 技术参数 Technical data

U _N =440Vac/50Hz									
Q _N (kvar)	C _N (μF)	连接 方式	D±1 (mm)	D1 _{max} (mm)	H (mm)	I _N (A)	I _s (kA)	M (kg)	Part number
15	3×82	△	86	90	230	3×20	2.1	1.5	C6SS1136-J*****
20	3×111	△	96	100	230	3×27	3.3	1.9	C6SS1040-J*****
25	3×137	△	106	111	230	3×33	4.2	2.3	C6SS1056-J*****
30	3×165	△	116	121	235	3×39	4.8	2.7	C6SS1057-J*****
40	3×220	△	116	121	280	3×53	5.1	3.3	C6SS1227-J*****
15	3×250	Y	116	121	180	3×20	4.0	2.2	C6SS1257-M*****
20	3×330	Y	116	121	210	3×26	4.0	2.6	C6SS1337-M*****
25	3×410	Y	116	121	240	3×36	5.0	2.9	C6SS1417-M*****

U _N =480Vac/50Hz									
Q _N (kvar)	C _N (μF)	连接 方式	D±1 (mm)	D1 _{max} (mm)	H (mm)	I _N (A)	I _s (kA)	M (kg)	Part number
20	3×92	△	96	100	230	3×24	3.0	1.8	C6SS3926-J*****
25	3×115	△	106	111	230	3×30	3.6	2.2	C6SS3127-J*****
30	3×138	△	116	121	235	3×36	4.5	2.7	C6SS3056-J*****
20	3×270	Y	96	100	240	3×24	3.3	2.0	C6SS3277-M*****
25	3×340	Y	106	111	240	3×30	4.1	2.4	C6SS3347-M*****
30	3×410	Y	116	121	240	3×36	5.0	2.9	C6SS3417-M*****

U _N =525Vac/50Hz									
Q _N (kvar)	C _N (μF)	连接 方式	D±1 (mm)	D1 _{max} (mm)	H (mm)	I _N (A)	I _s (kA)	M (kg)	Part number
20	3×77	△	96	100	230	3×22	2.7	1.8	C6ST6776-J*****
25	3×96	△	106	111	230	3×27	3.3	2.2	C6ST6966-J*****
30	3×115	△	116	121	235	3×33	3.9	2.7	C6ST6127-J*****
20	3×230	Y	96	100	240	3×22	3.0	2.0	C6ST6237-M*****
25	3×290	Y	106	111	240	3×28	3.8	2.4	C6ST6297-M*****
30	3×350	Y	116	121	240	3×33	4.5	2.9	C6ST6357-M*****

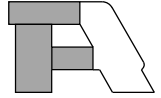
备注 Note: 1. “-”表示容量偏差。“-”=capacitance tolerance code.

2. “*****”表示内部特征码, 请联系技术工程师确认完整代码。

“*****” = Internal use, please contact the technical engineer to confirm the complete code.

3. “I_N”表示线电流。“I_N” stands for line current.

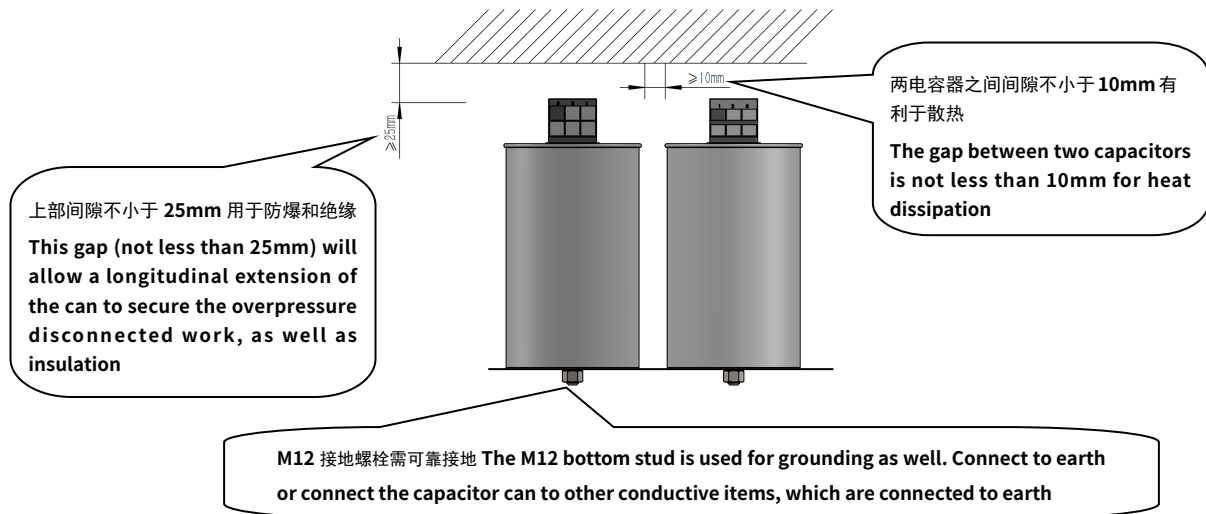
4. 如需其它电压、容量产品, 请联系技术工程师。 If need the other design, please contact our technical engineer.



■ **安装空间要求(以帽式设计为例) Installation space requirements (Take cap type design as an example)**

电容要安装在阴凉、通风良好的位置，且其周围不能有热辐射的物体，如滤波电路电抗器、太阳直射。

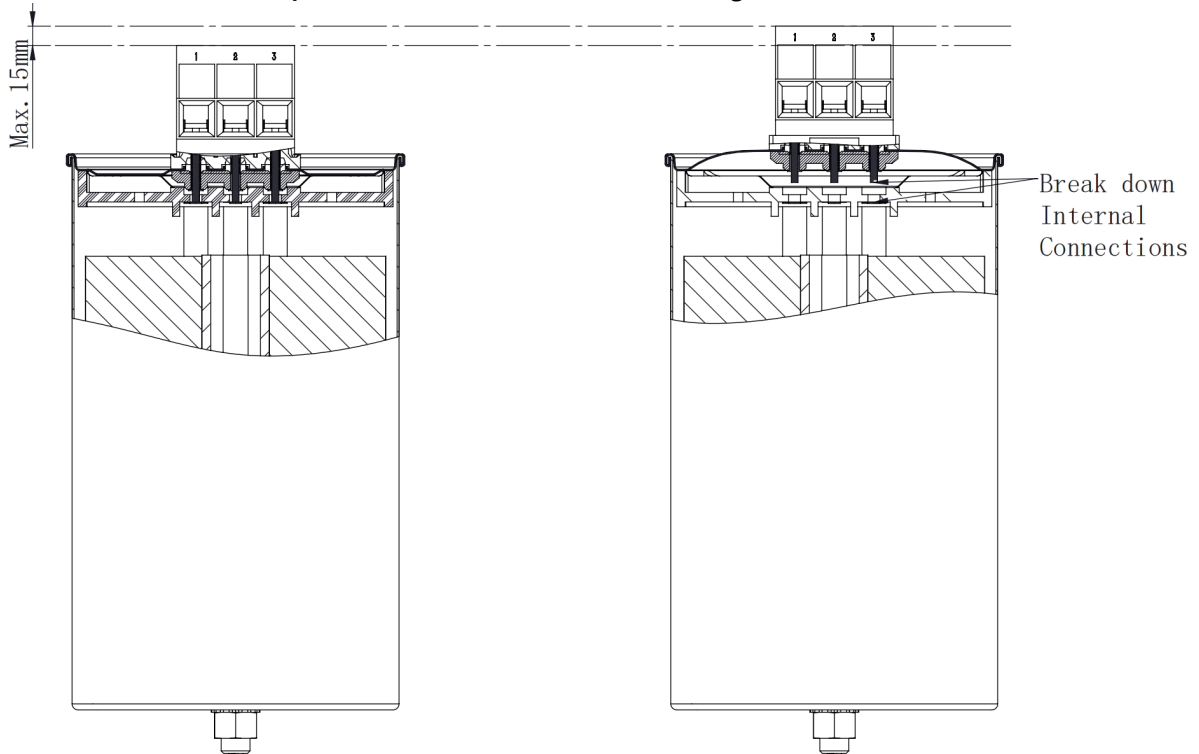
The capacitor is to be installed at a cool and well-ventilated place, and must not be installed within the range of heat radiating objects, e.g. filter circuit reactors, direct sun radiation.

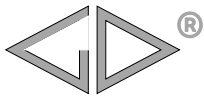


电容主要是通过底部螺栓安装固定，若需要其它安装固定方式，请联系我司技术人员确认。

The capacitor is mainly installed by bolts at the bottom. If you need other installation methods, please contact our technical staff to check.

电容的过压力防护装置需要通过盖面鼓起动作，所以盖面到引出端顶部间不能安装影响防爆动作的其它配件，装置动作前后如下图所示。
The overpressure disconnecter of the capacitor is triggered by the cover bulge, so no other components can be installed between the cover and the top of the terminal end that affect the overpressure disconnecter action. Before and after the action of the overpressure disconnecter is shown in the figure below.





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■ 连接电缆(以帽式设计为例) Connection of the supply cable(Take cap type design as an example)

产品本体（参考外形图的 $\phi D \times H$ ）上部必须保持足够的空间（参考安装空间要求），该空间内不能安装其它组件。

Keep enough space (refer to the outline drawing $\phi D \times H$) on the top of the capacitors (refer to installation space requirements) and no other components can be installed in this space.

连接电缆应使用软性电线并保持松弛，不要用硬芯电缆，若使用母排等连接方式，请联系我司技术人员确认。

The connection cable shall be of flexible type and keep slack, do not use hard core cable. If using busbar connection or other methods, please contact our technical staff to check.

对于帽式设计，可安装的最大引线截面积为 $16\text{mm}^2(\text{M5})/25\text{mm}^2(\text{M6})$ ，可根据实际电流值来选择合适的电缆。

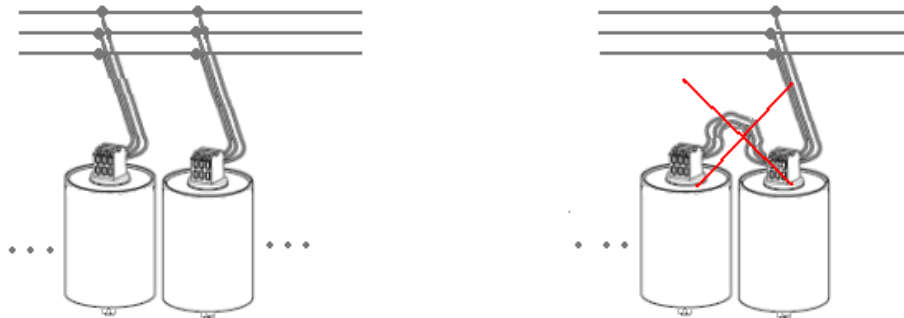
For the cap type design, maximum cable cross section is $16\text{mm}^2(\text{M5})/25\text{mm}^2(\text{M6})$, according to actual result to choose the appropriate cable.

对于螺栓式设计，根据实际电流值来选择合适的电缆。

For the bolt type design, according to actual result to choose the appropriate cable.

以帽式设计为例，对于多个电容器并联，每个电容器采用直接连接到母线上方式，若有其它连接方式请联系我们。

Take cap type design as an example, for capacitors connected in parallel, each capacitor should use independent lead wires, if you have any other connection way please contact us.



■ 安装注意事项 Installation cautions

操作前注意电容器必须充分放电。

Discharge the capacitor completely before operation.

注意端子最大可承受电流，端子总电流不得超出规定的最大值：

Pay attention to the Max. Current on the terminals, the total current on terminals must not go beyond the Max. current by specified:

● M6 插头螺栓的引出端子最大电流为 60A。

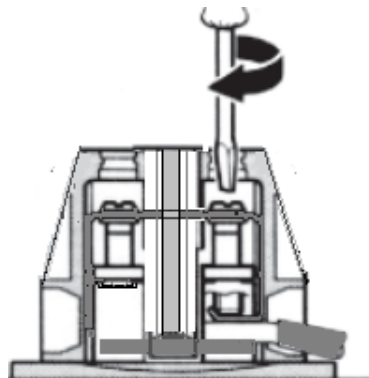
The maximum current of M6 plug bolt is 60A.

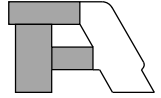
● M5 插头螺栓的引出端子最大电流为 45A。

The maximum current of M5 plug bolt is 45A.

对于帽式设计，安装引出端子推荐使用一字螺丝刀，刀腿的直径小于防护盖孔以方便插入防护盖上的孔。

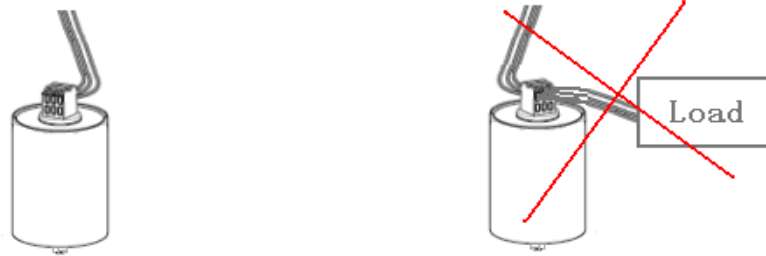
For the cap type design, recommend to using a slotted screwdriver to install the terminals.





以帽式设计为例，电容器均只能作为一个独立的分支，不能在电容器的一端连接负载（放电电阻除外）。

Take cap type design as an example, each capacitor is only used as an independent subfield, and not connected the load in the terminals(Except discharge resistors).



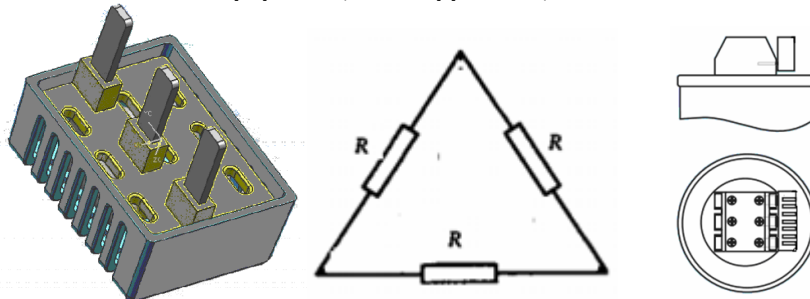
■ 放电电阻连接 Connection of the discharge resistors

当用户有需求时，应提供将每一电容器单元或电容器组在 10min 之内从工作电压放电到 75V 或更低电压的装置。

When required by the user, each capacitor unit or bank shall be provided with means for discharging each unit in 10 min to 75 V or less, from a working voltage U_N .

放电电阻用于对电容器进行放电以保护人免受电击的危险，同时也在自动 PFC 装置内电容器进行切换时放电。

Discharge resistors are required for discharging capacitor for protection of human being (Electric shock risk), and for re-switching capacitors in automatic PFC equipment (Phase opposition).



C6S 帽式设计电容器系列有可选配的放电电阻，其配套的放电电阻能满足在 3min 内使电容器放电到 75V 或更低电压，放电电阻值的计算可以按如下公式：

Capacitors of the C6S series (cap type design) are fitted with discharge resistors for a discharge <75V within <180s, the resistors to be used can be calculated with the following formula:

$$R \leq \frac{T}{k \times C \times I_n \frac{U_N \times \sqrt{2}}{U}}$$

T: 放电时间 Discharge time

C: 每一相的容量 Capacitance of one phase

U_w : 实际工作电压 Operating voltage

U: 最大允许的残留电压

Maximum permissible voltage after discharging

k: 系数，内部使用△接法，k=1；内部使用Y接法，k=1/3。

Coefficient, if delta connection, k=1; if star connection, k=1/3.

■ 环境温度 Ambient temperature

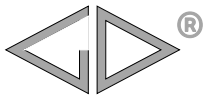
该电容的环境空气温度类别是 -40/D，表示环境空气温度最高可达 55°C。温度对于聚丙烯膜式电容器来讲是影响损耗的一大因素，这会影响到产品的使用寿命。

The ambient temperature category is -40/D, means ambient temperature up to max. 55°C. Temperature is one of the main stress factors for polypropylene type capacitors, means it has a major influence on the life cycle of the capacitor.

■ 过电流 Overload currents

电容器决不可在电流超过最大允许电流下运行。

Capacitors should never be operated with currents exceeding the maximum permissible value.



在将电容器接入电路时，可能产生高幅值和高频率的瞬态过电流。在将电容器分组接入已通电的另一分组相并联时，也有可能产生这种瞬态效应，但不可超过电容器的浪涌峰值电流 \hat{I}_s 。

Transient overcurrents of high amplitude and frequency may occur when capacitors are switched into circuit. Such transient effects are to be expected when a section of a capacitor bank is switched in parallel with other sections that are already energized, don't exceed the peak surge current (\hat{I}_s) of the capacitor.

为将这些瞬态过电流降低到电容器与设备能承受的值，可能需要通过电阻器来投电容器（电阻合闸），或在电容器组的每一分组的电源电路接入电抗器。

It may be necessary to reduce these transient overcurrents to acceptable values in relation to the capacitor and to the equipment by switching on the capacitors through a resistor (resistance switching), or by the insertion of reactors in the supply circuit to each section of the bank.

如果电容器上配有熔断器，则由开关操作引起的过电流峰值应限制到 $100 I_N$ (方均根值) 及以下。

If the capacitors are provided with fuses, the peak value of the overcurrents due to switching operations shall be limited to a maximum of $100 I_N$ (r.m.s. value).

■ 谐波 Harmonics

主要的谐波源是整流器、电力电子设备及饱和的变压器铁心。

The chief sources of harmonics are rectifiers, power electronics, and saturated transformer cores.

如果电容器电流超过最大允许电流，而电压仍在 $1.1U_N$ 之内，则应测出主要谐波，以便找到最佳的解决办法。

If the capacitor current exceeds the maximum permissible value, while the voltage is within the permissible limit of $1.1U_N$, the predominant harmonic should be determined in order to find the best remedy.

下列解决办法应予考虑：

The following remedies should be considered:

将一部分或全部电容器移到系统的其它部位。

Moving some or all of the capacitors to other parts of the system.

接入与电容器串联的电抗器，将电路的谐振频率降低到干扰的谐波频率值以下。

Connection of a reactor in series with the capacitor, to lower the resonant frequency of the circuit to a value below that of the disturbing harmonic.

当电容器附近有电力半导体设备时，增加电容器的电容值。

Increase of the capacitance value when the capacitor is connected close to power semiconductors.

建议检查输入线的电流总谐波畸变率 THD_i ，要求 $THD_i \leq 50\%$ 。

We would propose to check the total harmonic current distortion (THD_i) of the input terminals, the THD_i must not exceed 50%.

$$THD_i = \frac{\sqrt{\sum_{n=1}^{\infty} I_n^2}}{I_0} \times 100(\%)$$

(THD_i ：电流总谐波畸变率； I_0 ：实际工作的基波电流； I_n ：实际工作的谐波电流)

(THD_i ：Total current harmonic distortion； I_0 ：Actual working fundamental current；

I_n ：Actual working harmonic current)

■ 安全注意事项 Safety

电容器外壳保持良好和可靠接地。

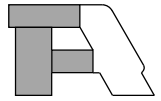
Maintain good and effective earthing for enclosures of capacitors.

拆装电容器时要确保电容器已放电干净。

Handle capacitor to ensure capacitor has discharge clean.

遵循良好的工程规范。

Follow good engineering practices.



■ 维护 Maintenance

检查连接线与端子螺丝是否打紧。

Check tightness of Connections/terminals periodically.

定期清理引出端子避免因灰尘或其它可导电的垃圾引起短路。

Clean the terminals periodically to avoid dust or other conductive garbage can cause a short-circuit.

检查短路保护保险丝。

Check short circuit protection fuses.

每半年使用电流钳表或其它在线测电流的工具测量电容器电流。

Every half a year use current clamp table or other on-line measuring tools of current measurement capacitor current.

检查放电电阻是否正常工作，可以通过电容器先上电后断开 3min 后测量电容器的电压是否降至 75V 以下来进行判断。

To check whether the discharge resistance is working normally, it can be judged by measuring whether the voltage of the capacitor drops to 75V after the capacitor is turned on first and disconnected for 3 minutes.

■ 安装与调试步骤 Installation & commissioning procedures

1、打开包装箱取出电容

Unpack Capacitor

取电容时请勿直接抓取端子

Do not touch capacitor terminals by hand directly while taking them

2、检查电容器外观（是否有机械损伤）

Check Physically

3、固定好电容器

Fixed capacitors

4、确保使用电容器场合的电压、频率、温度在电容器额定值以下

Ensure for correctness of supply voltage, frequency, temperature

5、连接好电容器

Connect Capacitor

6、打开电源开关

Switch on supply

7、检查主回路的电压与电流是否正常

Check main supply Voltage & current

8、电容器正常运行

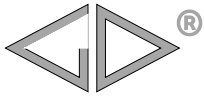
Capacitor is commissioned



■ 预期寿命 Expected lifetime

电容器的应用中，有多种因素会影响到电容器的使用寿命，比如电压、温度、电流、电网谐波、湿度、光照或辐射以及其它一些未知的因素。预期寿命仅考虑电压、温度的关系，基于长期耐久性试验的合格结果，再通过预期寿命理论计算公式计算该电容在不同工况下的预期寿命。因此，预期寿命仅作为选型参考，而不代表电容器的实际使用寿命，也不代表质保要求。

For capacitors application, various factors will affect the expected lifetime of capacitors, such as voltage, temperature, current, network harmonics, humidity, lighting or radiation and other unknown factors. The lifetime only considers the effects of voltage and temperature. Based on the qualified results of long-term durability test, the lifetime curve of the capacitor under different working conditions is calculated by using the theoretical calculation formula of lifetime. Therefore, the lifetime is only used as a reference for selection, and does not represent the actual service life of the capacitor, nor does it represent the quality assurance requirements.



C6D

干式交流滤波电容器（定制品） AC filter capacitor (Customized products)

■ 外形图 Outline Drawing

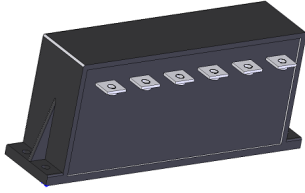


Fig. 1

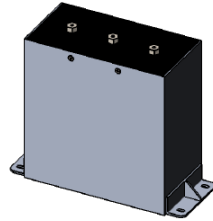


Fig. 2

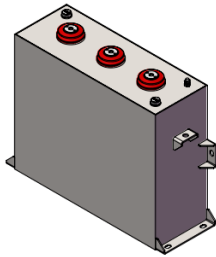


Fig. 3

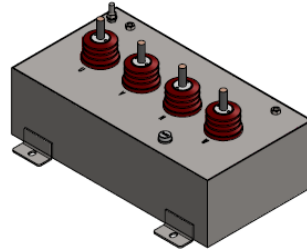


Fig. 4

外壳形状以及电极引出方式仅供用户参考，用户可以按实际需求进行定制，定制包括外形样式、容量、电压范围以及内部连接方式；具体要求可以直接与我们联系。

The body shape and the terminals are only for users reference, users can customize according to the actual demand, customization include appearance style, capacity voltage range and internal connection; Contact with us directly if any specific requirements.

■ 特点

- 应用于交流滤波电路中
- 等效串联电阻小，能承受大的谐波电流
- 自感小
- 有自愈性
- 寿命长
- 树脂灌封

■ Features

- Used in AC-filter circuits
- Low ESR, high harmonic current handling capabilities
- Low Ls
- Self-healing property
- Long lifetime
- Filled with resin

■ 应用场合

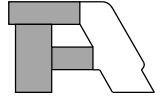
- 风能发电、太阳能发电用变频器上的交流滤波
- 交通工具，如：轨交车辆辅变的交流滤波
- 焊接设备，电梯，电机驱动

■ Applications

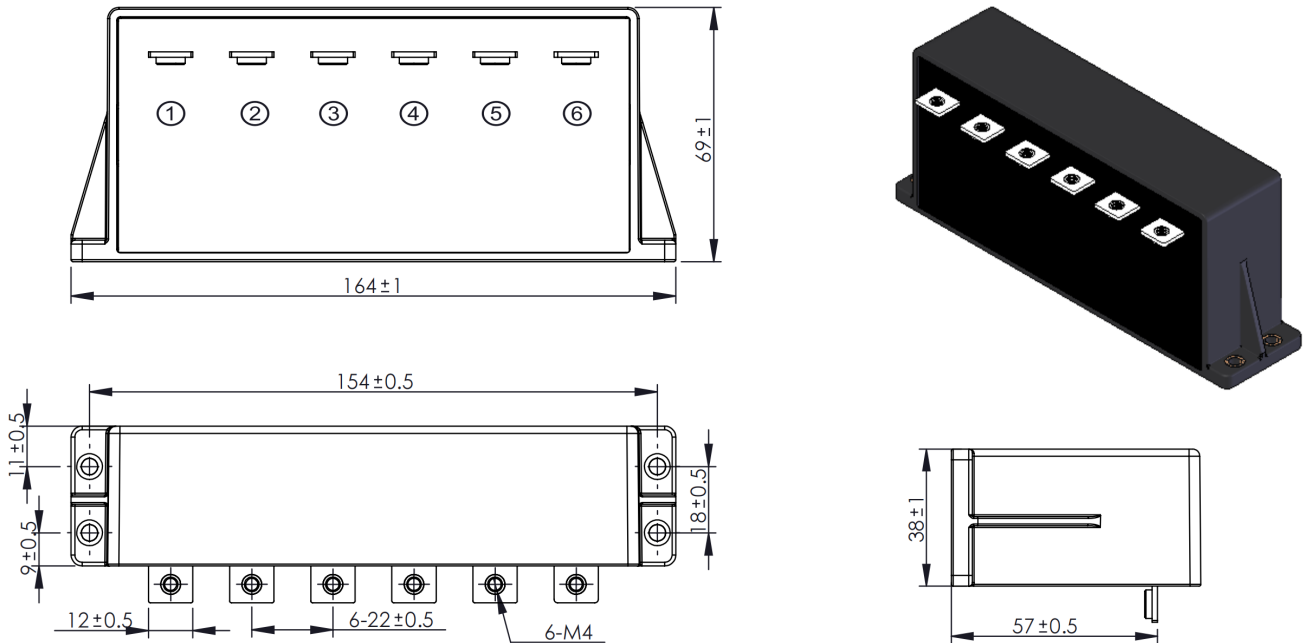
- Used in Inverters of wind power and solar power for AC-filter
- Transportation: Used in auxiliary converts of rail transit vehicles for AC-filte
- For high pulse and high frequency application

■ 技术要求 Specifications

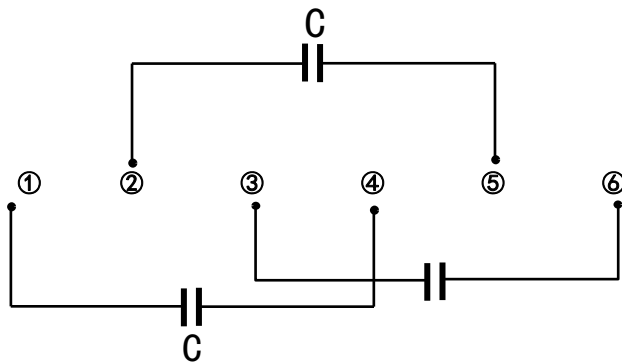
引用标准 Reference standards	GB/T 17702 (IEC 61071) Optional: GB/T 25121 (IEC 61881-1)
气候类别 Climatic category	40/70/56
可运行温度范围（热点温度） Operating temperature range (θ_{hs})	-40°C~85°C
贮存温度范围 Storage temperature range	-40°C~85°C
电容量偏差 Capacitance tolerance	±5%(J), ±10%(K)
额定均方根电压 Rated RMS Voltage (U_{rms})	230Vac~3 300Vac (可根据用户需求 According to customer requirements)
额定电容量 Rated capacity(C_N)	可根据客户需求 According to customer requirements



极间耐电压 Test voltage between Terminals (U_{T-T})	2.15 U_{rms} 或 1.5 U_N (50Hz/60Hz), 10s
极壳耐电压 Test voltage between terminals to case	2 U_{rms} +1 000Vac (50Hz/60Hz), 10s
介质损耗角正切 Dielectric dissipation factor ($\tan\delta_d$)	2×10^{-4}
绝缘电阻 Insulation resistance ($IR \times C_N$)	$\geq 10\ 000s$ (20°C, 500V, 1min)
最高使用海拔 Max. altitude	2 000m



Max Torque of Installation: 2N·m



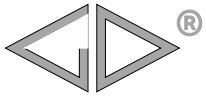
C_N (μF)	U_{rms} (VAC)	ESR @1kHz (m Ω)	R_{th} (K/W)	I_{max} (A)	\hat{I} (kA)	\hat{I}_s (kA)	Case	M (kg)	Part number
3×25	310	3×5.1	6.7	3×15	0.75	2.25	Plastic	0.6	C6DQ3256K000002

备注 Note: 1. “ R_{th} ” 是指在自然冷却条件下，电容器热点到环境的热阻。

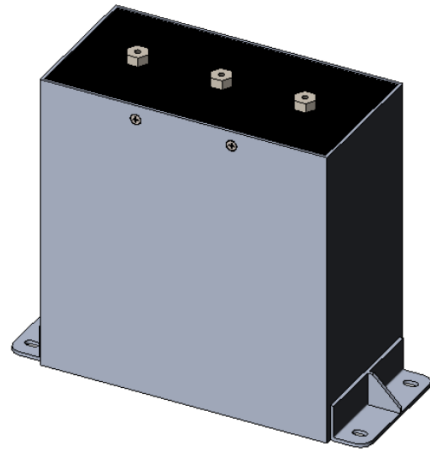
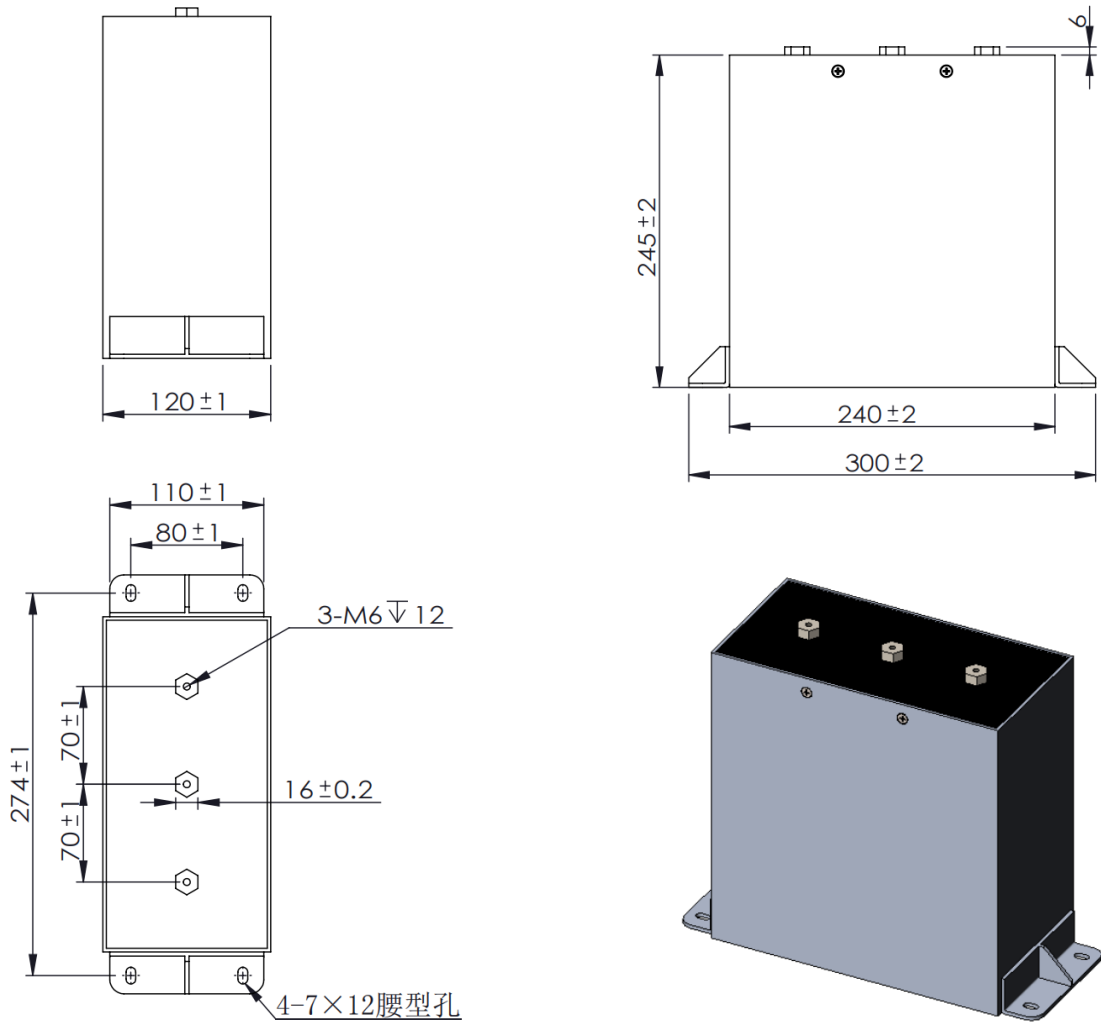
“ R_{th} ” = Rth between hotspot and ambient on natural cooling condition.

2. 此定制品适用于电压小于 250Vac 的滤波系统。

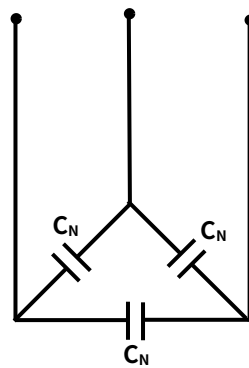
This customized part is suitable for mains voltage is less than 250Vac 50Hz/60Hz.



C6D



Torque of Installation: 5N·m

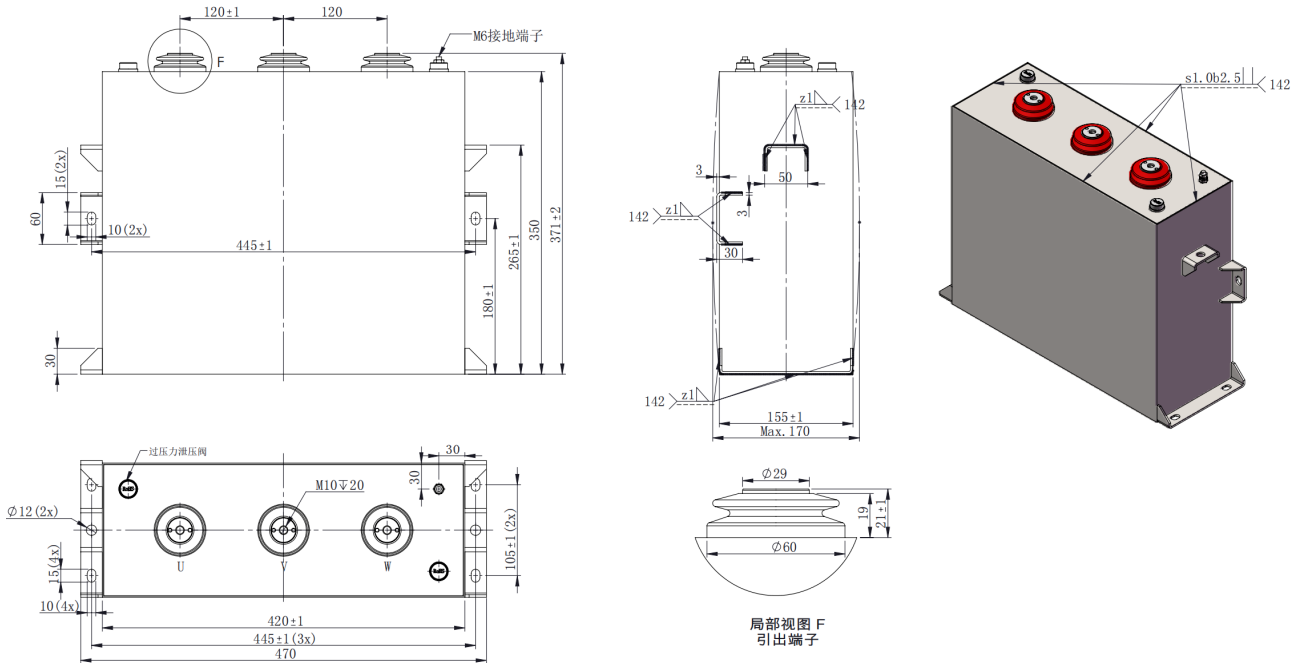


Circuit topology

C_N (μF)	U_{rms} (VAC)	ESR @1kHz (m Ω)	R_{th} (K/W)	I_{max} (A)	\hat{I} (kA)	\hat{I}_s (kA)	Case	M (kg)	C_N (μF)
3×200	500	3×0.6	1.0	3×75	4.8	14.5	Aluminum	9.6	D6DH2207J4*****

备注 **Note**: “ R_{th} ” 是指在自然冷却条件下，电容器热点到环境的热阻。

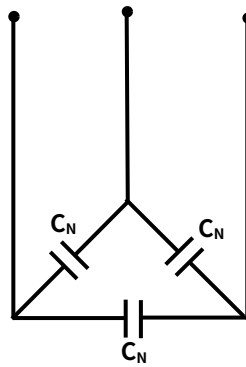
“ R_{th} ” = R_{th} between hotspot and ambient on natural cooling condition



注:

- 1、M10 引出螺孔抗扭矩强度大于 20N·m;
- 2、未标注尺寸公差参照 GB/T 1804-C 级 (等效 ISO 2768-1-C 级);
- 3、焊接件未标注尺寸参照 GB/T 19804-C 级 (等效 ISO 13920-C 级);
- 4、焊缝质量等级: CPC3;
- 5、焊缝缺陷质量等级: C 级;
- 6、焊缝检验等级: CT4.

Torque of Installation: 15N·m

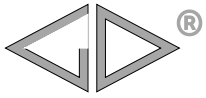


Circuit topology

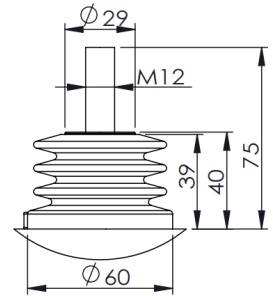
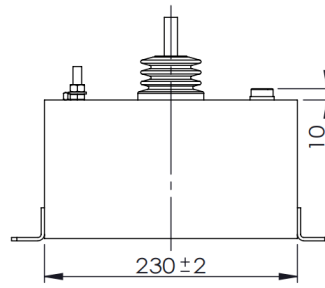
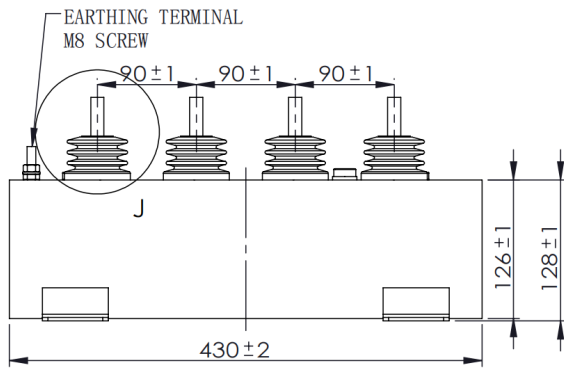
C_N (μF)	U_{rms} (VAC)	ESR @1kHz (m Ω)	R_{th} (K/W)	I_{max} (A)	\hat{I} (kA)	\hat{I}_s (kA)	Case	M (kg)	Part number
3×200	850	3×0.8	0.6	3×120	5	15	Stainless steel	33	D6DW1207*****

备注 Note: “ R_{th} ” 是指在自然冷却条件下, 电容器热点到环境的热阻。

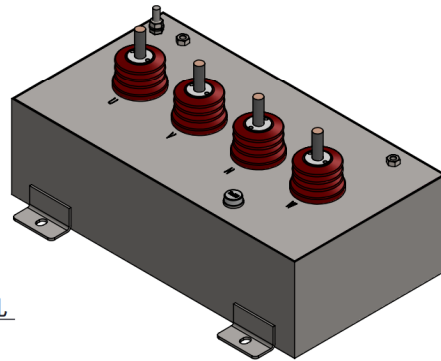
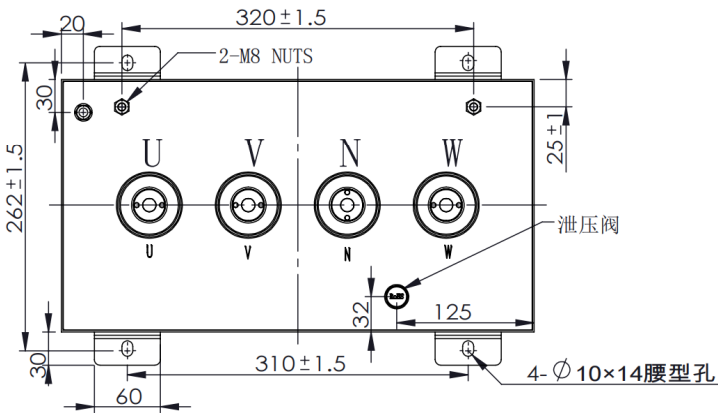
“ R_{th} ” = R_{th} between hotspot and ambient on natural cooling condition.



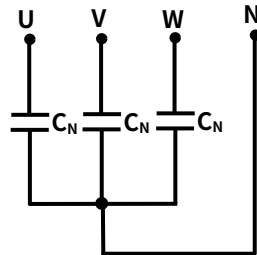
C6D



局部视图 J
绝缘端子



Torque of Installation: 20N·m

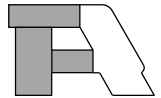


Circuit topology

C_N (μF)	U_{rms} (VAC)	ESR @1kHz (m Ω)	R_{th} (K/W)	I_{max} (A)	\hat{i} (kA)	\hat{i}_s (kA)	Case	M (kg)	Part number
3×640	500	3×1.0	0.9	3×62	3.2	9.6	Stainless steel	23	D6DH2647*****

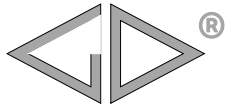
备注 Note: “ R_{th} ” 是指在自然冷却条件下，电容器热点到环境的热阻。

“ R_{th} ” = R_{th} between hotspot and ambient on natural cooling condition.



交流电动机电容器 AC Motor Capacitors

型号 Type	特征 Description	安全防护等级 Class of safety protection	安全认证 Safety Approvals	规格 Rating	页码 Page
C6G (CBB61-S3)	金属化, 塑壳封装, 安全膜设计 Metallized, Box-type Segmented film design	S3	CQC, TUV, VDE, UL-CUL	450Vac(50/60Hz): 0.5 μ F ~10.0 μ F	172
C61 (CBB61)	金属化, 塑壳封装 Metallized, box-type	S0	CQC, VDE, UL-CUL	250Vac(50/60Hz): 0.5 μ F ~20.0 μ F 300/350Vac(50/60Hz): 0.5 μ F ~20.0 μ F 450Vac(50/60Hz): 0.1 μ F ~ 9.5 μ F 500Vac(50/60Hz): 0.1 μ F ~ 9.5 μ F	175
C65 (CBB65)	金属化, 铝壳封装, 机械防爆设计 Metallized, Aluminum case, Anti-explosion design	S2	CQC,VDE, UL-CUL	450Vac(50/60Hz): 5.0 μ F ~85 μ F	184



FARATRONIC

一、交流电动机电容器的标准体系

交流电动机电容器的主要标准是由中国国家标准化管理委员会发布的 **GB/T 3667.1**, 等同国际电工委员会 (IEC) 制定的 **IEC 60252-1**。

我司主要在上述标准的基础上制定了各个型号交流电动机电容器的企业标准, 以供内部引用。

另外, 交流电动机电容器的部分标准术语也参考了其它电容器标准中的定义, 不再一一列出。

以上, 构成了交流电动机电容器的标准体系。

交流电动机电容器的标准体系如下:

—The standard system of AC Motor Capacitors

The main standards are GB/T 3667.1 , published by Standardization administration of the people' s republic of China.The standard is equal to IEC 60252-1, prepared by International Electrotechnical Commission(IEC).

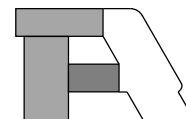
According to the basic requirements of above standards, Faratronic made detailed standards of various AC moter capacitor type for internal use.

In additional, some terminologies are also reference to other capacitor standards, which will be not listed below.

The standard system of AC motor capacitors is made up of all above-standards.

Following please find the corresponding specification lists for AC moter capacitors.

标准号(No.)	标准 (Standards)
GB/T 3667.1 (IEC 60252-1)	第 1 部分: 交流电动机电容器 Part 1: AC motor capacitor
	详细规范: Detail specification for each type

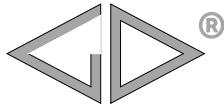


二、常用的标准术语

1. **额定容量 C_N**
设计电容时采用的电容值。
2. **额定电压 U_N**
设计电容时采用的交流电压的有效值。
3. **额定频率 f_N**
设计电容时采用的最高频率。
4. **额定电流 I_N**
在额定电压和频率下的交流电流的有效值。
5. **电容器损耗角正切 $\tan\delta$**
在规定频率的正弦波电压作用下，电容器的损耗功率除以电容器的无功功率，其值为等效串联电阻和容抗之比。
6. **连续运行**
在电容器正常寿命期内无时间限制的一种运行。
7. **运行等级**
在额定负荷条件、额定电压、规定温度和额定频率下的最短总寿命。
A 级——30 000h
B 级——10 000h
C 级——3 000h
D 级——1 000h
这些运行等级表示在电容器寿命期间实际故障不超过 3%。
与电压相对应的电容器有不止一个运行等级。
8. **最低允许电容器运行温度**
在投入期间，电容器外壳外表面的允许最低温度。
9. **最高允许电容器运行温度 t_c**
在运行期间，电容器外壳外表面最热区域的允许最高温度。
10. **安全防护等级**
安全防护等级用下列 4 种代码中的一种来表示，并标志在电容器上。
(S3) 表示该类电容器使用安全膜结构设计；电容器失效时，剩余容量 $<1\% C_N$ ；并且是防火或防爆的。

二、Terminologies

1. **Rated capacitance C_N**
Capacitance value for which the capacitor has been designed.
2. **Rated voltage U_N**
r.m.s. value of the alternating voltage for which the capacitor has been designed.
3. **Rated frequency f_N**
Highest frequency for which the capacitor has been designed.
4. **Rated current I_N**
r.m.s. value of the alternating current at the rated voltage and frequency.
5. **Loss factor of the capacitor $\tan\delta$**
The dissipation factor is ratio between reactive power of the impedance of the capacitor and effective power when capacitor is submitted to a sinusoidal voltage of specified frequency, it is that ratio between the equivalent series resistance and the capacitive reactance of a capacitor.
6. **Continuous operation**
Operation with no time limit within the normal life of the capacitor.
7. **Class of operation**
The minimum total life for which the capacitor has been designed at rated duty, voltage, temperature and frequency
Class A——30 000 h
Class B——10 000 h
Class C——3 000 h
Class D——1 000 h
These classes of operation are intended to represent a true failure rate not exceeding 3 % during the life of the product.
A capacitor may have more than one class with corresponding voltages.
8. **Minimum permissible capacitor operating temperature**
Minimum permissible temperature on the outside of the case at the moment of switching on the capacitor.
9. **Maximum permissible capacitor operating temperature t_c**
Maximum permissible temperature of the hottest area of the outside of the capacitor case during operation.
10. **Class of safety protection**
Class of safety protection identified by one of four codes to be marked on the capacitor.
(S3) indicates that the capacitor is of segmented film construction. This capacitor type is required to fail with low residual capacitance ($<1\% C_N$) and has protection against fire and shock hazard.



(S2) 表示该类电容器设计成失效时仅呈开路状态, 并且是防火或防爆的。

注: 等同于以前的 P2。

(S1) 表示该类电容器失效时可呈开路状态或短路状态, 并且是防火或防爆的。

注: 等同于以前的 P1。

(S0) 表示该类电容器无专门的故障保护。

注: 等同于以前的 P0。

11. 容量温度系数 α

电容器在规定的温度范围内容量随温度的变化率。通常以 20°C 时电容量为参考, 用百万分之一每摄氏 ($10^{-6}/^{\circ}\text{C}$) 表示。 ($10^{-6}/^{\circ}\text{C} = 1\text{ppm}/^{\circ}\text{C}$)

$$\alpha_i = \frac{C_i - C_0}{C_0(T_i - T_0)}$$

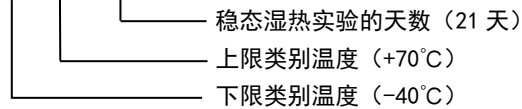
C_i: 电容器在温度 T_i 时容量

C₀: 电容器在 T₀(20±2)°C 时的容量

12. 气候类别

电容器所属的气候类别用斜线分隔的三个数来表示 (IEC 60068-1: 如: 40/70/21)。

40 / 70 / 21



13. 绝缘电阻(IR)/时间常数(t)

绝缘电阻为电容器充电 1 分钟后所加的直流电压和流经电容器的漏电流值的比值, 单位为 MΩ。时间常数为绝缘电阻和电容量的乘积, 通常以秒表示, 公式如下:

$$t[s] = IR[M\Omega] \times C_N [\mu F]$$

一般情况下, 绝缘电阻用于描述小容量电容器的绝缘特性, 时间常数用于描述大容量 (如: C_N > 0.33μF) 电容器的绝缘特性。

14. 自愈性 (仅对金属化膜电容器)

电容器的电特性在发生局部电介质击穿后迅速而基本地恢复到击穿前的值的过程。

金属化膜的金属镀层是通过真空蒸发的方法将金属沉积在薄膜上, 厚度只有几十个纳米, 当介质上存在弱点、杂质时, 局部电击穿就可能发生, 电击穿处的电弧放电所产生的能量足以使电击穿点邻近处的金属镀层蒸发, 使击穿点与周围极板隔开, 电容器电气性能即可恢复正常。

(S2) Indicates that the capacitor type has been designed to fail in the open-circuit mode only and is protected against fire or shock hazard.

Note: formerly referred to as P2

(S1) Indicates that the capacitor type may fail in the open-circuit or short-circuit mode and is protected against fire or shock hazard.

Note: formerly referred to as P1

(S0) Indicates that the capacitor type has no specific failure protection.

Note: formerly referred to as P0

11. Temperature coefficient of capacitance α

The change rate of capacitance with temperature measured over a specified range of temperature. It is normally expressed in parts per million per Celsius degree ($10^{-6}/^{\circ}\text{C}$) and referred to 20°C.

$$\alpha_i = \frac{C_i - C_0}{C_0(T_i - T_0)}$$

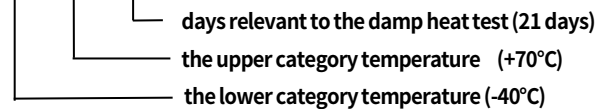
C_i: Capacitance at temperature T_i.

C₀: Capacitance at temperature T₀(20±2)°C.

12. Climatic category

The climatic category which the capacitor belongs to is expressed in three numbers separated by slashes, (IEC 60068-1: example 40/70/21).

40 / 70 / 21



13. Insulation Resistance(IR) / Time Constant (t)

The insulation resistance is the ratio between an applied D.C. voltage and the resulting leakage current after a minute of charge. It is expressed in MΩ. The time constant is expressed in seconds with the following formula:

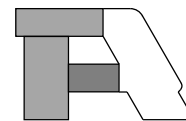
$$t[s] = IR[M\Omega] \times C_N [\mu F]$$

In general, Insulation resistance is used for describing smaller capacitance capacitors' insulation character, Time Constant for describing bigger one's (example: C_N > 0.33μF).

14. Self-healing (Only for metallized film capacitor)

Process by which the electrical properties of the capacitor, after a local breakdown of the dielectric, are rapidly and essentially restored to the values before the breakdown.

The metal coatings of the metallized film, which are vacuum-deposited directly onto the plastic film, have a thickness of only several tens nm. At weak points or impurities in the dielectric, a dielectric breakdown would occur. The energy released by the arc discharge in the breakdown channel is sufficient to totally evaporate the thin metal coating in the vicinity of the channel. The insulated region thus resulting around the former faulty area will cause the capacitor to regain its full operation ability.



三、使用薄膜电容器的注意事项：

1. 工作电压

薄膜电容器的选用取决于施加的最高电压，并受施加的电压波形、电流波形、频率、环境温度（电容器表面温度）、电容量等因数的影响。使用前请先检查电容器两端的电压波形、电流波形和频率（在高频场合，允许电压随着电容器类型的不同而改变，详细资料请参阅说明书）是否在额定值内。

2. 工作电流

通过电容器的脉冲（或交流）电流等于电容量 C 与电压上升速率的乘积，即 $I=C \times dV/dt$ 。

由于电容器存在损耗，在高频或高脉冲条件下使用时，通过电容器的脉冲（或交流）电流会使电容器自身发热而有温升，将会有热击穿（冒烟、起火）的危险。因此，电容器安全使用条件不仅受额定电压（或类别电压）的限制，而且受额定电流的限制。

额定电流被认为是由击穿模式决定的脉冲电流（峰值电流，即由 dV/dt 指标所限制的）和连续电流（以峰峰值或有效值表示）组成，当使用时，需确认这两个电流都在允许范围之内。

3. 谐波

谐波指的是电源中相对于 50Hz 或 60Hz 的多次正弦电流和电压波形。谐波主要由电网中的变频器、电子驱动器、焊机和 UPS 等电子设备负载引起。谐波会造成电容器的过电压、过电流：

1) 过电压

过电压会加速聚丙烯介质老化，缩短电容器寿命。一般来说，在额定电压之上，电容器电压每升高 8%，电容器寿命会减半。同时，过电压会导致电容器局部放电强度加大，导致聚丙烯介质介电性能劣化，甚至突发性的击穿。

2) 过电流

过电流会使电容器损耗功率大幅增加，引起电容器异常发热，导致热击穿，严重缩短电容器寿命。综上所述，谐波对电容器的危害十分严重，在电容器的使用过程中，所采用的电网必须符合国标 GB/T 14549《电能质量 公用电网谐波》的相关规定

4. 因薄膜振动产生的嗡嗡声

电容器的嗡嗡声是由于电容器薄膜受到两电极间库仑力的作用，产生的振动而发出的声音。施加的电压和频率波形失真越严重，所产生的嗡嗡声越大。但这种嗡嗡声对电容器不会产生任何破坏作用。

三、Caution items in using plastic film capacitors

1. Operation voltage

The plastic film capacitor varies in the maximum applicable voltage depending on the applied voltage waveform, current waveform, frequency, ambient temperature (capacitor surface temperature), capacitance value, etc. Be sure to use capacitors within the specified values by checking the voltage waveform, current waveform, and frequency applied to them (In the application of high frequency, the permissible voltage varies with the type of the capacitor. For detail see the specification).

2. Operating Current

The pulse (or AC) current flowing through the capacitor is expressed as: $I=C \times dV/dt$.

Due to the fact that dissipation factor of the capacitor will generate the internal heat under the application of high frequency or high pulse current, temperature rise in it will occur and may cause deterioration of withstanding voltage, even lead to break down (smoking or firing). Therefore, the safety use of capacitor must be within the rated voltage (or category voltage) and the permissible current.

The rated current must be considered by dividing into pulse current (peak current) and continuous current (rms current) depending on the break down mode, and when using, should make sure the both currents are within the permissible values.

3. Harmonics

Harmonics are sinusoidal voltages and currents with frequencies that are multiples of a 50Hz or 60Hz power supply frequency. Harmonics result from the operation of electrical loads with non-linear voltage current characteristics. They are mainly caused by loads operated with modern electronic devices, such as converters, electrical drives, welding machines and uninterruptible power supplies (UPS). Harmonics may cause overvoltage, overcurrent.

1. Overvoltage

Overvoltage will accelerate aging of polypropylene film, which will reduce capacitor's life.

Generally speaking, overvoltage of 8% cuts life expectancy in half. At the same time, it will enhance local discharge, causing electric property worse, even suddenly broken down.

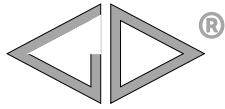
2. Overcurrent

Overcurrent will add loss power, which will bring thundering heat inside capacitor, even hot-breaking down. It will reduce capacitor's life.

In a word, harmonics are seriously harmful. Therefore, when use capacitor, applied supply net must accord with GB/T 14549: Quality of electric energy supply, harmonics in public supply network or other IEC standards.

4. Buzzing noise

Any buzzing noise produced by capacitor is caused by the vibration of the film due to the coulomb force that is generated between the electrodes with opposite poles. If the wave-form with a high distortion rate or frequency is applied across the capacitor, the buzzing noise will become louder. But the buzzing noise is of no damage to capacitor.



5. 表面温升 (ΔT)

当电容器中通过持续电流时, 热量累积会使电容器内部温度升高。当温度超出允许的热点温度时, 可能会导致电容器短路甚至燃烧。因此, 流经电容器的电流不允许超过产品目录所规定的最大数值。

6. 高湿环境

如果长时间使用在高湿环境下, 电容器可能会吸收潮气、电极被氧化, 导致电容器损坏。在 AC 条件下使用, 高湿环境将会加剧电晕的影响, 从而引起电容量下降、损耗增加。

7. 贮存条件

7.1 电容器不能贮存在腐蚀性的空气环境中, 特别是存在氯化物、硫化物、酸、碱、盐、有机溶剂或类似物质时。

7.2 产品不能暴露在高温和高湿状态, 必须保存在以下环境中: (在不拆开原包装的基础上)

温度: -40°C 到 35°C

湿度: 年平均值不超过 70%RH

全年任意 30 天不超过 80%RH

贮存时间: 不超过 12 个月 (从产品包装或产品本体上的日期算起)

四、绿色产品

RoHS 符合性

在此产品目录中的法拉公司的产品均符合 RoHS 指令和《电子信息产品污染控制管理办法》的要求。

五、客户订购指南

请尽量提供以下信息

1. 额定电容量及允许偏差
2. 电压: 包括额定电压、工作电压、纹波电压、非周期冲击电压等
3. 电流: 包括最大电流、工作电流、最大峰值电流、最大冲击电流等
4. 频率: 包括工作频率, 脉冲频率, 纹波电压的频率等
5. 工作环境: 如温度范围、湿度、海拔等
6. 产品尺寸: 如直径、高度或长度、宽度、高度等
7. 端子类型: 如螺栓式、接线片、插片式等
8. 安全要求: 如阻燃、防爆等
9. 预期寿命: 在给定的工作条件下的预期寿命
10. 安装方式: 如底部螺栓、中部卡圈、安装耳等
11. 其它: 如果要使用该产品于交流滤波或其它场合, 请事先联系我们的技术工程师

5.Surface overtemperature (ΔT)

When continuing current flows through the capacitor, the temperature inside the capacitor will rise, induced by accumulated heat. If the temperature exceeds allowed hot-spot temperature, it might cause a short circuit or fire. The limits described in the catalogue are not exceeded.

6.Humid ambient

If used for a long time in a humid ambient, the capacitor might absorb humidity and oxidise the electrodes causing breakage of the capacitor. If case of AC application, high humidity would increase the corona effect. This phenomenon causes a drop of capacitance and a increase of capacitor losses.

7. Storage conditions

7.1 Capacitors may not be stored in corrosive atmospheres, particularly not when chlorides, sulfides, acids, lye, salts, organic solvents or similar substances are present.

7.2 It shouldn't be located in particularly high temperature and high humidity, it must submit to the following conditions (unchanging primal package):

Temperature: -40°C to 35°C

Humidity: Average per year $\leq 70\%RH$; For 30 full days randomly distributed throughout the year $\leq 80\%RH$

Storage time: ≤ 24 months (from the date marked on the capacitor's body or the label glued to the package)

四、Green Products

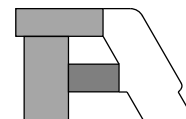
RoHS Compliance

Faratronic products in the catalogue are RoHS Compliant.

五、Guide for customer ordering

Please provide following information as possible as you can

1. Rated capacitance and tolerance
2. Voltage: including rated voltage, working voltage, ripple voltage, non-recurrent surge voltage etc
3. Current: including maximum current, working current, maximum peak current, maximum surge current etc
4. Frequency: including working frequency, pulse frequency, frequency of ripple voltage etc
5. Working environment: for example, temperature range, humidity, altitude etc
6. Dimensions: for example, diameter, height or length, width, height etc.
7. Terminal form: for example, stud, lug, tab, etc
8. Safety: for example, flame resistance, anti-explosion etc.
9. Expected lifetime: under given working conditions
10. Fixed style: for example, bottom-stud, middle-clip, mounting ears etc
11. Others: If use theses AC motor capacitor in AC filter or other applications, please contact with our technical engineers



八、产品编码说明 Part number system

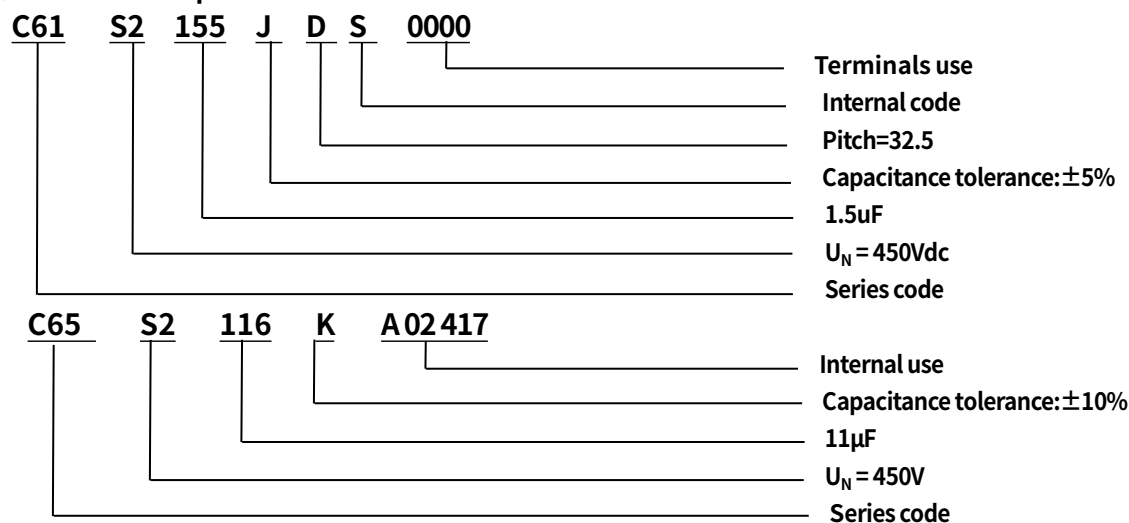
■ 15 位产品代码如下:

The 15 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	6	1												

第 1~3 位	型号代码	Digit 1 to 3	Series code
第 4~5 位	额定电压 (参见 table 1)	Digit 4 to 5	Rated voltage (refer to table 1)
第 6~8 位	标称容量 举例: $105=10 \times 10^5 \text{pF}=1.0\mu\text{F}$	Digit 6 to 8	Rated capacitance value for example: $105=10 \times 10^5 \text{pF}=1.0\mu\text{F}$
第 9 位	容量偏差 J=±5%, K=±10%	Digit 9	Capacitance tolerance J=±5%, K=±10%
适用于 C61、C6G 系列		For C61, C6G series	
第 10 位	引线脚距 (参见 table 2) (适用于引线式)	Digit 10	Pitch (refer to table 2) (for tinned wire)
第 10 位	外形尺寸代码 (参照各个系列的说明)	Digit 10	Dimension code (related to each series)
第 11 位	内部特征码	Digit 11	Internal use
第 12~15 位	引出端代码 (参照各个型号的说明)	Digit 12 to 15	Terminals code (related to each series)
适用于 C6G 系列, 参照各个系列的说明		For C65 series	
第 10~15 位	内部特征码	Digit 10 to 15	Internal use

■ 例如 for example



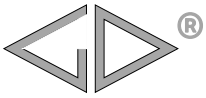
■ Table 1 额定电压代码 Rated voltage code

	A	B	C	D	E	F	G	H	J	K	L	M	N
1			16	20				50	63			1100	
2	100	125	160	200	250	315	400	500	630	800	120		
	P	Q	R	S	T	U	V	W	X	Y			
1	240	300	330	440	540	600	700	850	900				
2	275	305	350	450	520		760						

说明: 字母加数字表示交流, 数字加字母表示直流, 例如 A2 表示 100Vac, 2A 表示 100Vdc
 Exaplantion: Letter and then number indicate AC, but number and then Letter indicate DC,
 for example, 2A indicate 100Vdc, A2 indicate 100Vac.

■ Table 2 脚距代码 Picth code

Code	9	A	B	C	D	F	H	M	R
Pitch	22.5	25.0	27.5	30	32.5	37.5	42.5	52.5	62.5

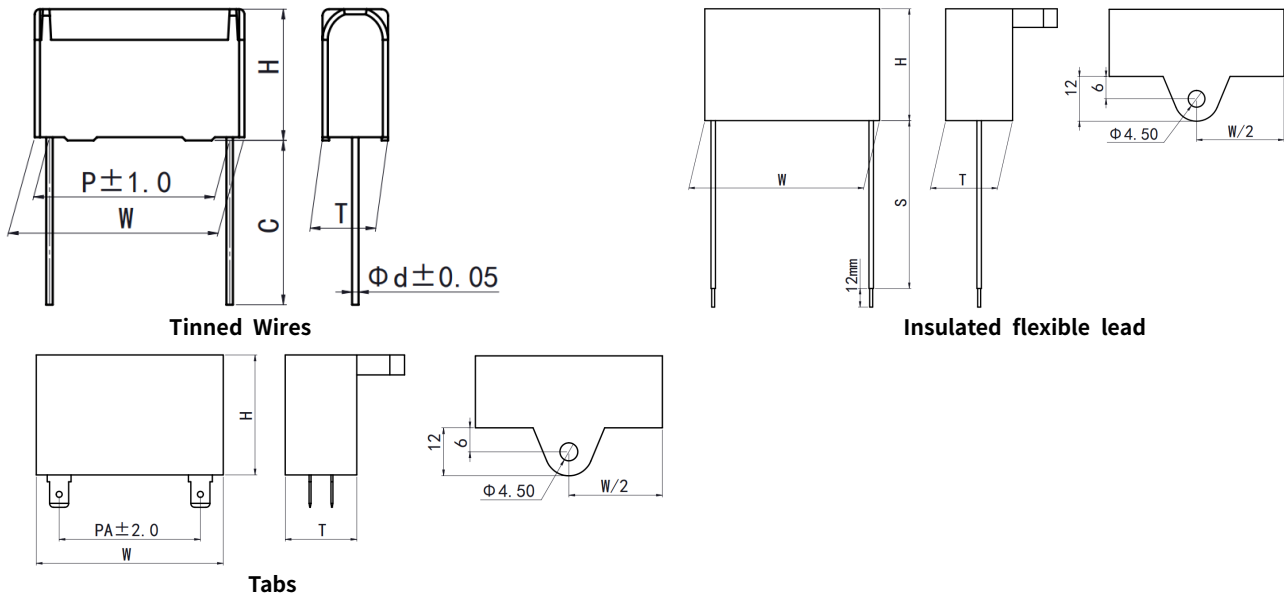


C6G

安全等级 S3 的金属化聚丙烯膜交流电动机电容器 (塑料外壳)

Safety class S3 Metallized polypropylene film AC motor capacitor (Box-type)

外形图 Outline Drawing



特点

- 适用于频率为 50Hz/60Hz 交流电源供电的单相电动机启动和运转
- 有自愈特性
- 性能稳定, 可靠性高
- 安全膜设计, 达到 S3 安全防护等级

Features

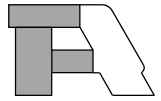
- Widely applied to starting and running of AC single-phase motors at 50Hz/60Hz frequency power
- Self-healing property
- High performance and reliability
- Safety class S3, with segmented film designing

安全认证 Safety Approvals

●		CQC (中国)	GB/T 3667.1-2016 A.C. motor capacitors 0.1μF ~10μF, 450Vac/500Vac Class C or 450Vac Class B, 50Hz/60Hz S3, SH, 40/85/21 证书号(Certificate No.): CQC13002103332
●		VDE (德国)	EN 60252-1:2011+A1:2013 A.C. motor capacitors 1.0μF ~10μF, 450Vac Class B/Class C, 50Hz/60Hz, S3, SH, 40/085/21 证书号(Certificate No.): 40043589
●		TUV Rheinland (德国)	EN 60252-1:2011+A1:2013 A.C. motor capacitors 0.1μF ~10μF, 450Vac/500Vac Class C or 450Vac Class B, 50Hz/60Hz, S3, SH, 40/85/21 证书号(Certificate No.): R 50266163
●		UL/CUL (美国/加拿大)	UL 810, CSA C22.2.No190, max.500Vac, 50Hz/60Hz, max.85°C, "Protected", 10 000AFC 证书号(File No.): E232771, CCN:CYWT2/8

技术要求 Specifications

额定电压 Rated Voltage	450Vac (50Hz/60Hz)	
运行等级 Class of operation	Class B or Class C	
电容量范围 Capacitance Range	0.1μF~10μF	
电容量偏差 Capacitance Tolerance	±5%(J), ±10%(K)	
安全防护等级 Class of safety protection	S3	
气候类别 Climate category	40/85/21	
耐电压 Voltage Proof	引线之间 Between Terminals	900Vac (2s)
	极壳之间 Between Terminals and Case	3 000Vac (2s)
最高运行电压 Maximum permissible voltage	1.1U _N	
最高运行电流 Maximum permissible current	1.3I _N	
绝缘电阻 Insulation Resistance(IR×C _N)	≥3 000s (20°C, 100V, 1min)	
损耗角正切 Dissipation Factor	≤20×10 ⁻⁴ (20°C, 1kHz)	



■ 产品编码说明 Part number system

■ 15 位产品代码如下:

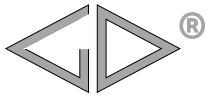
The 15 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	6	G												

第 1~3 位	型号代码 C6G	Digit 1 to 3	Series code C6G
第 4~5 位	交流额定电压 S2=450V	Digit 4 to 5	AC rated voltage S2=450V
第 6~8 位	标称容量 举例: $105=10 \times 10^5 \text{pF}=1.0\mu\text{F}$	Digit 6 to 8	Rated capacitance value for example: $105=10 \times 10^5 \text{pF}=1.0\mu\text{F}$
第 9 位	容量偏差 J=±5%, K=±10%	Digit 9	Capacitance tolerance J=±5%, K=±10%
第 10 位	引线脚距 P B=27.5mm D=32.5mm 外形尺寸的盒子 W (插片式/绝缘软引线式) 2=37mm 4=37mm	Digit 10	Pitch B=27.5mm D=32.5mm W of the Dimension (for tabs and insulated flexible lead wires) 2=37mm 4=37mm
第 11 位	内部特征码	Digit 11	Internal use
第 12~15 位	引出端代码	Digit 12 to 15	Terminals code

■ Table 1 引出端代码 Terminals code

第 12 位 Digit 12		第 13 位 Digit 13		第 14 位 Digit 14		第 15 位 Digit 15	
代码 Code	引出端形式 Terminal form	代码 Code	安装形式 Fixed style	代码 Code	引出端长度 Length of lead wire	代码 Code	引出端长度偏差 Length tolerance
L	引线式(Tinned wires) CP ϕ 1.0mm	0	PCB	B	引线长度 5.0mm Lead length 5.0mm	0	标准长度或插片式 Standard length or tabs
M	引线式(Tinned wires) CP ϕ 0.8mm	1	下中耳 Mounting ear in the middle of case's top	9	引线长度 3.9mm Lead length 3.9mm	1	Length tolerance±0.5mm
3	AMP187#插片每边 1 个 one AMP187# per side			8	8 inch	2	Length tolerance±0.4mm
4	AMP187#插片每边 2 个 Two AMP187# per side			0	标准的镀锡引线长度(最短 5.0mm)或标准的绝缘软引 线长(最短 100mm)或插 片式 Standard tinned wire length(5min)or standard insulated flexible wire length(100min) or tabs	3	Length tolerance±0.3mm
7	AMP250#插片每边 1 个 One AMP250# per side						
8	AMP250#插片每边 2 个 Two AMP250# per side						
B	UL1015 绝缘线剥线式 UL1015 Insulated lead wire						

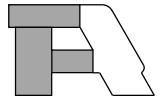


C6G

■ 外形尺寸 Dimensions(mm)

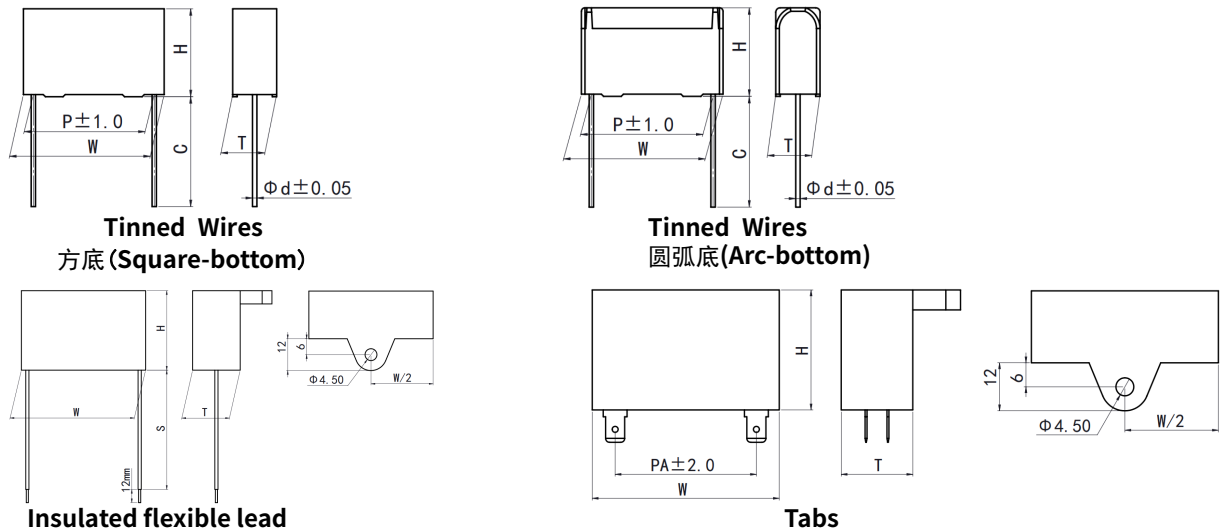
引线式 Tinned lead wire						插片式或绝缘软引出线式 Tabs or Insulated flexible lead wires					
450Vac(Class B/Class C)						450Vac(Class B/Class C)					
C _N (μF)	W±1	H±1	T±1	P	Part number	C _N (μF)	W±1	H±1	T±1	P	Part number
▲ 0.5	32.0	20.0	11.0	27.5	C6GS2504-B0M0**	1.0	37.0	22.0	13.0	25.0	C6GS2105-20**00
▲ 1.0	32.0	23.0	13.0	27.5	C6GS2105-B0M0**	1.2	37.0	24.0	14.0	25.0	C6GS2125-20**00
▲ 1.2	32.0	24.0	14.0	27.5	C6GS2125-B0M0**	1.4	37.0	25.0	15.0	25.0	C6GS2145-20**00
▲ 1.4	32.0	25.0	15.0	27.5	C6GS2145-B0M0**	1.5	37.0	26.0	15.0	25.0	C6GS2155-20**00
▲ 1.5	32.0	26.0	16.0	27.5	C6GS2155-B0M0**	1.6	37.0	26.0	15.0	25.0	C6GS2165-20**00
▲ 1.6	32.0	26.0	16.0	27.5	C6GS2165-B0M0**	1.8	37.0	26.0	18.0	25.0	C6GS2185-20**00
▲ 1.8	32.0	27.0	17.0	27.5	C6GS2185-B0M0**	2.0	37.0	26.0	18.0	25.0	C6GS2205-20**00
▲ 2.0	32.0	28.0	18.0	27.5	C6GS2205-B0M0**	2.2	37.0	28.0	18.0	25.0	C6GS2225-20**00
▲ 2.2	32.0	29.0	19.0	27.5	C6GS2225-B0M0**	2.5	37.0	30.0	18.0	25.0	C6GS2255-20**00
▲ 2.5	32.0	30.0	20.0	27.5	C6GS2255-B0M0**	2.8	37.0	31.0	20.0	25.0	C6GS2285-20**00
▲ 2.8	32.0	31.0	21.0	27.5	C6GS2285-B0M0**	3.0	37.0	31.0	20.0	25.0	C6GS2305-20**00
▲ 3.0	32.0	32.0	22.0	27.5	C6GS2305-B0M0**	3.5	37.0	33.0	21.0	25.0	C6GS2355-20**00
▲ 3.5	32.0	34.0	24.0	27.5	C6GS2355-B0M0**	4.0	37.0	34.0	22.0	25.0	C6GS2405-20**00
▲ 4.0	32.0	35.0	25.0	27.5	C6GS2405-B0M0**	4.5	37.0	36.0	24.0	25.0	C6GS2455-20**00
1.0	36.0	23.0	13.0	32.5	C6GS2105-D0L0**	5.0	37.0	37.0	25.0	25.0	C6GS2505-20**00
1.2	36.0	23.5	13.5	32.5	C6GS2125-D0L0**	5.5	37.0	38.0	26.0	25.0	C6GS2555-20**00
1.4	36.0	24.5	14.0	32.5	C6GS2145-D0L0**	6.0	37.0	39.0	27.0	25.0	C6GS2605-20**00
1.5	36.0	25.0	15.0	32.5	C6GS2155-D0L0**	6.3	37.0	40.0	28.0	25.0	C6GS2635-20**00
1.6	36.0	25.0	15.0	32.5	C6GS2165-D0L0**	6.5	37.0	40.0	28.0	25.0	C6GS2655-20**00
1.8	36.0	26.0	16.0	32.5	C6GS2185-D0L0**	7.0	37.0	42.0	28.0	25.0	C6GS2705-20**00
2.0	36.0	27.0	17.0	32.5	C6GS2205-D0L0**	8.0	37.0	44.0	30.0	25.0	C6GS2805-20**00
2.2	36.0	29.0	17.0	32.5	C6GS2225-D0L0**	2.5	47.0	28.0	16.0	35.0	C6GS2255-40**00
2.5	36.0	30.5	18.8	32.5	C6GS2255-D0L0**	3.0	47.0	29.0	17.0	35.0	C6GS2305-40**00
2.8	36.0	30.5	18.8	32.5	C6GS2285-D0L0**	3.5	47.0	30.0	18.0	35.0	C6GS2355-40**00
3.0	36.0	30.0	20.0	32.5	C6GS2305-D0L0**	4.0	47.0	31.0	19.0	35.0	C6GS2405-40**00
3.5	36.0	33.0	21.0	32.5	C6GS2355-D0L0**	4.5	47.0	32.0	20.0	35.0	C6GS2455-40**00
4.0	36.0	34.0	22.0	32.5	C6GS2405-D0L0**	5.0	47.0	33.0	21.0	35.0	C6GS2505-40**00
4.5	36.0	36.0	24.0	32.5	C6GS2455-D0L0**	5.5	47.0	34.0	22.0	35.0	C6GS2555-40**00
5.0	36.0	37.0	25.0	32.5	C6GS2505-D0L0**	6.0	47.0	34.0	24.0	35.0	C6GS2605-40**00
5.5	36.0	38.0	26.0	32.5	C6GS2555-D0L0**	6.5	47.0	36.0	24.0	35.0	C6GS2655-40**00
6.0	36.0	39.0	27.0	32.5	C6GS2605-D0L0**	7.0	47.0	37.0	25.0	35.0	C6GS2705-40**00
6.3	36.0	40.0	28.0	32.5	C6GS2635-D0L0**	7.5	47.0	38.0	26.0	35.0	C6GS2755-40**00
6.5	36.0	40.0	28.0	32.5	C6GS2655-D0L0**	8.0	47.0	38.0	28.0	35.0	C6GS2805-40**00
7.0	36.0	42.0	28.0	32.5	C6GS2705-D0L0**	8.5	47.0	40.0	28.0	35.0	C6GS2855-40**00
7.5	36.0	42.0	30.0	32.5	C6GS2755-D0L0**	9.0	47.0	40.0	30.0	35.0	C6GS2905-40**00
8.0	36.0	44.0	30.0	32.5	C6GS2805-D0L0**	9.5	47.0	40.0	30.0	35.0	C6GS2955-40**00
8.5	36.0	44.0	32.0	32.5	C6GS2855-D0L0**	10.0	47.0	42.0	30.0	35.0	C6GS2106-40**00

- 备注 Note: 1. “ ” 表示容量偏差。 “ ” =capacitance tolerance code, J=±5%, K=±10%。
 2. “**” 表示引出端代码(见 table 1)。“**” =terminal form code (refer to table 1)
 3. 当W=37mm时, 绝缘软引线的线径为AWG20; 当W=47mm时, 绝缘软引线的线径为AWG18。
 When W=37mm, insulated flexible lead gauge =AWG20; When W=47mm, insulated flexible lead gauge =AWG18.
 4. 当运行等级为 Class B 时, 第 11 位为 B。When the class of operation is Class B, the digit 11 is B.
 5. “▲” 表示无 UL/CUL 认证。“▲” indicates no UL/CUL approval.



金属化聚丙烯膜交流电动机电容器(塑料外壳) Metallized polypropylene film AC motor capacitor(Box-type)

外形图 Outline Drawing



特点

- 适用于频率为 50Hz/60Hz 交流电源供电的 单相电动机起运和运转
- 有自愈特性
- 性能稳定, 可靠性高

Features

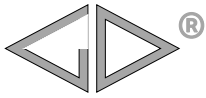
- Widely applied to starting and running of AC single-phase motors at 50Hz/60Hz frequency power
- Self-healing property
- High performance and reliability

安全认证 Safety Approvals

●		CQC (中国)	GB/T 3667.1-2016 A.C. motor capacitors (1) 0.1μF ~ 9.5μF, 450Vac/500Vac Class C or 450Vac Class B, 50Hz/60Hz, S0, SH ,40/70/21 or 40/85/21 证书号(Certificate No.): CQC02002001687 (2) 0.5μF ~ 20μF, 250Vac, Class C, 50Hz/60Hz, S0, SH, 40/85/21 证书号(Certificate No.): CQC08002024389 (3) 0.5μF ~ 20μF, 350Vac, Class C, 50Hz/60Hz, S0, SH, 40/85/21 证书号(Certificate No.): CQC08002024390
●		VDE (德国)	EN 60252-1:2011+A1:2013 A.C. motor capacitors (1) 0.1μF ~ 9.5μF, 450Vac/500Vac Class C or 450Vac Class B, 50Hz/60, S0, SH 40/70/21 or 40/85/21 证书号(Certificate No.): 40004094 (2) 0.5μF ~ 20μF, 250Vac, Class C, 50Hz/60Hz, S0, SH, 40/85/21 证书号(Certificate No.): 40023507 (3) 0.5μF ~ 20μF, 300Vac/350Vac, Class C, 50Hz/60Hz, S0, SH, 40/85/21 证书号(Certificate No.): 40023504
●		UL/CUL (美国/加拿大)	UL 810 CSA,C22.2 No.190(construction only) max.500Vac, 50Hz/60Hz, max.90°C 证书号(File No.): E256238, CCN:CZDS2/8

技术要求 Specifications

额定电压 Rated Voltage	500Vac (50Hz/60Hz)	450Vac (50Hz/60Hz)	300Vac/350Vac (50Hz/60Hz)	250Vac (50Hz/60Hz)
运行等级 Class of operation	Class C	Class B or Class	Class C	Class C
电容量范围 Capacitance Range	0.1μF~9.5μF	0.1μF~9.5μF	0.5μF~20.0μF	0.1μF~20.0μF
电容量偏差 Capacitance Tolerance	±5%(J), ±10%(K)			
安全防护等级 Class of safety protection	S0			
气候类别 Climate category	40/70/21 or 40/85/21		40/85/21	
耐电压 Voltage Proof	引线之间 Between Terminals	1 000Vac (2s)	900Vac (2s)	700Vac (2s)
	极壳之间 Between Terminals and	3 000Vac (2s)		
最高运行电压 Maximum permissible voltage	1.1U _N			
最高运行电流 Maximum permissible current	1.3I _N			
绝缘电阻 Insulation Resistance(IR×C _N)	≥3 000s (20°C, 100V, 1min)			
损耗角正切 Dissipation Factor	≤20×10 ⁻⁴ (20°C, 1kHz)			



C61

CBB61 series

■ 产品编码说明 Part number system

■ 15 位产品代码如下:

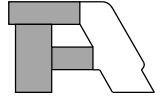
The 15 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	6	1												

第 1~3 位	型号代码 C61=CBB61	Digit 1 to 3	Series code C61=CBB61
第 4~5 位	交流额定电压 H2=500V S2=450V R2=350V Q1=300V E2=250V	Digit 4 to 5	AC rated voltage H2=500V S2=450V R2=350V Q1=300V E2=250V
第 6~8 位	标称容量 举例: 105=10×10⁵pF=1.0μF	Digit 6 to 8	Rated capacitance value for example: 105=10×10⁵pF=1.0μF
第 9 位	容量偏差 J=±5%, K=±10%	Digit 9	Capacitance tolerance J=±5%, K=±10%
第 10 位	引线脚距 P 9=22.5mm B=27.5mm D=32.5mm F=37.5mm 外形尺寸的盒子 W (插片式/绝缘软引线式) 1=32mm 2=37mm 3=42mm 4=47mm 5=57mm 6=67mm	Digit 10	Pitch 9=22.5mm B=27.5mm D=32.5mm F=37.5mm W of the Dimension (for tabs and insulated flexible lead wires) 1=32mm 2=37mm 3=42mm 4=47mm 5=57mm 6=67mm
第 11 位	内部特征码	Digit 11	Internal use
第 12~15 位	引出端代码	Digit 12 to 15	Terminals code

■ Table 1 引出端代码 Terminals code

第 12 位 Digit 12		第 13 位 Digit 13		第 14 位 Digit 14		第 15 位 Digit 15	
代码 Code	引出端形式 Terminal form	代码 Code	安装形式 Fixed style	代码 Code	引出端长度 Length of lead wire	代码 Code	引出端长度偏差 Length tolerance
0	镀锡的引线 tinned wire	0	PCB	B	引线长度 5.0mm Lead length 5.0mm	0	标准长度或插片式 Standard length or tabs
3	AMP187#插片每边 1 个 one AMP187# per side	1	下中耳 Mounting ear in the middle of case's top	9	引线长度 3.9mm Lead length 3.9mm	1	Length tolerance±0.5mm
4	AMP187#插片每边 2 个 Two AMP187# per side			8	8 inch	2	Length tolerance±0.4mm
7	AMP250#插片每边 1 个 One AMP250# per side			0	标准的镀锡引线长度(最短 5.0mm)或标准的绝缘软引 线长(最短 100mm)或插 片式 Standard tinned wire length(5min)or standard insulated flexible wire length(100min) or tabs	3	Length tolerance±0.3mm
8	AMP250#插片每边 2 个 Two AMP250# per side						
B	UL1015 绝缘线剥线式 UL1015 Insulated lead wire						



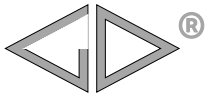
■ 外形尺寸 Dimensions(mm)

引线式 Tinned lead wire

500Vac(Class C)					
C _N (μF)	W±1	H±1	T±1	P	Part number
0.10	26.5	16.0	7.0	22.5	C61H2104-9000**
0.12	26.5	17.0	8.5	22.5	C61H2124-9000**
0.14	26.5	18.5	10.0	22.5	C61H2144-9000**
0.15	26.5	18.5	10.0	22.5	C61H2154-9000**
0.18	26.5	18.5	10.0	22.5	C61H2184-9000**
0.22	26.5	20.0	11.0	22.5	C61H2224-9000**
0.27	26.5	22.0	12.0	22.5	C61H2274-9000**
0.5	32.0	20.0	11.0	27.5	C61H2504-B000**
1.0	32.0	22.0	13.0	27.5	C61H2105-B000**
1.2	32.0	28.0	14.0	27.5	C61H2125-B000**
1.4	32.0	28.0	14.0	27.5	C61H2145-B000**
1.5	32.0	28.0	14.0	27.5	C61H2155-B000**
1.6	32.0	28.0	14.0	27.5	C61H2165-B000**
1.8	32.0	28.0	14.0	27.5	C61H2185-B000**
2.0	32.0	33.0	18.0	27.5	C61H2205-B000**
2.2	32.0	33.0	18.0	27.5	C61H2225-B000**
2.5	32.0	33.0	18.0	27.5	C61H2255-B000**
2.8	32.0	33.0	18.0	27.5	C61H2285-B000**
3.0	32.0	37.0	22.0	27.5	C61H2305-B000**
3.5	32.0	37.0	22.0	27.5	C61H2355-B000**
4.0	32.0	37.0	22.0	27.5	C61H2405-B000**
★ 1.0	36.0	22.0	11.0	32.5	C61H2105-D000**
1.2	36.0	23.0	13.0	32.5	C61H2125-D000**
1.4	36.0	24.5	14.0	32.5	C61H2145-D000**
1.5	36.0	27.0	14.0	32.5	C61H2155-D000**
1.6	36.0	27.0	14.0	32.5	C61H2165-D000**
1.8	36.0	29.0	14.0	32.5	C61H2185-D000**
2.0	36.0	29.0	14.0	32.5	C61H2205-D000**
2.2	36.0	28.0	18.0	32.5	C61H2225-D000**
2.5	36.0	28.0	18.0	32.5	C61H2255-D000**
2.8	36.0	33.0	18.0	32.5	C61H2285-D000**
3.0	36.0	33.0	18.0	32.5	C61H2305-D000**

500Vac(Class C)					
C _N (μF)	W±1	H±1	T±1	P	Part number
3.5	36.0	33.0	18.0	32.5	C61H2355-D000**
★ 4.0	36.0	37.0	22.0	32.5	C61H2405-D000**
★ 4.5	36.0	37.0	22.0	32.5	C61H2455-D000**
★ 5.0	36.0	37.0	22.0	32.5	C61H2505-D000**
★ 5.5	36.0	41.0	26.0	32.5	C61H2555-D000**
★ 6.0	36.0	41.0	26.0	32.5	C61H2605-D000**
★ 6.3	36.0	41.0	26.0	32.5	C61H2635-D000**
★ 6.5	36.0	41.0	26.0	32.5	C61H2655-D000**
★ 7.0	36.0	45.0	30.0	32.5	C61H2705-D000**
★ 7.5	36.0	45.0	30.0	32.5	C61H2755-D000**
★ 8.0	36.0	45.0	30.0	32.5	C61H2805-D000**
★ 8.5	36.0	45.0	30.0	32.5	C61H2855-D000**
2.0	42.0	28.0	14.0	37.5	C61H2205-F000**
2.2	42.0	28.0	14.0	37.5	C61H2225-F000**
2.5	41.0	30.0	16.0	37.5	C61H2255-F000**
2.8	41.0	30.0	16.0	37.5	C61H2285-F000**
3.0	41.0	32.0	17.0	37.5	C61H2305-F000**
3.5	41.0	32.0	17.0	37.5	C61H2355-F000**
4.0	41.0	33.5	18.5	37.5	C61H2405-F000**
4.5	41.0	37.0	22.0	37.5	C61H2455-F000**
5.0	41.0	37.0	22.0	37.5	C61H2505-F000**
5.5	41.0	37.0	22.0	37.5	C61H2555-F000**
6.0	41.0	37.0	22.0	37.5	C61H2605-F000**
6.3	41.0	41.0	26.0	37.5	C61H2635-F000**
6.5	41.0	41.0	26.0	37.5	C61H2655-F000**
7.0	41.0	41.0	26.0	37.5	C61H2705-F000**
7.5	41.0	41.0	26.0	37.5	C61H2755-F000**
8.0	42.0	45.0	30.0	37.5	C61H2805-F000**
8.5	42.0	45.0	30.0	37.5	C61H2855-F000**
9.0	42.0	45.0	30.0	37.5	C61H2905-F000**
9.5	42.0	45.0	30.0	37.5	C61H2955-F000**

- 备注 Note: 1. “-”表示容量偏差。 “-”=capacitance tolerance code, K=±10%, J=±5%。
 2. “**”表示引出端代码(见 table 1)。“***”=terminal form code (refer to table 1).
 3. When P=22.5mm/27.5mm, d=0.8mm±0.05mm; When P>27.5mm, d=1.0mm±0.05mm.
 4. “★”表示外壳为圆弧底。“★”=Arc bottom of the outer shell.



■ 外形尺寸 Dimensions(mm)

插片式或绝缘软引出线式 Tabs or Insulated flexible lead wires

500Vac(Class C)					
C _N (μF)	W±1	H±1	T±1	PA	Part number
0.5	32.0	20.0	11.0	20.0	C61H2504-10**00
1.0	32.0	22.0	13.0	20.0	C61H2105-10**00
1.2	32.0	28.0	14.0	20.0	C61H2125-10**00
1.4	32.0	28.0	14.0	20.0	C61H2145-10**00
1.5	32.0	28.0	14.0	20.0	C61H2155-10**00
1.6	32.0	28.0	14.0	20.0	C61H2165-10**00
1.8	32.0	30.0	16.0	20.0	C61H2185-10**00
2.0	32.0	33.0	18.0	20.0	C61H2205-10**00
2.2	32.0	33.0	18.0	20.0	C61H2225-10**00
2.5	32.0	33.0	18.0	20.0	C61H2255-10**00
2.8	32.0	33.0	18.0	20.0	C61H2285-10**00
3.0	32.0	37.0	22.0	20.0	C61H2305-10**00
3.5	32.0	37.0	22.0	20.0	C61H2355-10**00
4.0	32.0	37.0	22.0	20.0	C61H2405-10**00
1.0	37.0	22.0	13.0	25.0	C61H2105-20**00
1.2	37.0	22.0	13.0	25.0	C61H2125-20**00
1.4	37.0	28.0	14.0	25.0	C61H2145-20**00
1.5	37.0	28.0	14.0	25.0	C61H2155-20**00
1.6	37.0	28.0	14.0	25.0	C61H2165-20**00
1.8	37.0	28.0	14.0	25.0	C61H2185-20**00
2.0	37.0	28.0	16.0	25.0	C61H2205-20**00
2.2	37.0	28.0	16.0	25.0	C61H2225-20**00
2.5	37.0	30.0	18.0	25.0	C61H2255-20**00
2.8	37.0	30.0	18.0	25.0	C61H2285-20**00
3.0	37.0	33.0	18.0	25.0	C61H2305-20**00
3.5	37.0	33.0	18.0	25.0	C61H2355-20**00
4.0	37.0	37.0	22.0	25.0	C61H2405-20**00

500Vac(Class C)					
C _N (μF)	W±1	H±1	T±1	PA	Part number
4.5	37.0	37.0	22.0	25.0	C61H2455-20**00
5.0	37.0	37.0	22.0	25.0	C61H2505-20**00
5.5	37.0	41.0	26.0	25.0	C61H2555-20**00
6.0	37.0	41.0	26.0	25.0	C61H2605-20**00
6.3	37.0	41.0	26.0	25.0	C61H2635-20**00
6.5	37.0	41.0	26.0	25.0	C61H2655-20**00
7.0	37.0	45.0	30.0	25.0	C61H2705-20**00
7.5	37.0	45.0	30.0	25.0	C61H2755-20**00
8.0	37.0	45.0	30.0	25.0	C61H2805-20**00
8.5	37.0	45.0	30.0	25.0	C61H2855-20**00
2.0	47.0	27.0	15.0	35.0	C61H2205-40**00
2.5	47.0	27.0	15.0	35.0	C61H2255-40**00
3.0	47.0	28.0	16.0	35.0	C61H2305-40**00
3.5	47.0	30.0	18.0	35.0	C61H2355-40**00
4.0	47.0	30.0	18.0	35.0	C61H2405-40**00
4.5	47.0	33.0	19.0	35.0	C61H2455-40**00
5.0	47.0	33.0	21.0	35.0	C61H2505-40**00
5.5	47.0	34.0	22.0	35.0	C61H2555-40**00
6.0	47.0	36.0	24.0	35.0	C61H2605-40**00
6.5	47.0	36.0	24.0	35.0	C61H2655-40**00
7.0	47.0	36.0	24.0	35.0	C61H2705-40**00
7.5	47.0	38.0	26.0	35.0	C61H2755-40**00
8.0	47.0	40.0	28.0	35.0	C61H2805-40**00
8.5	47.0	40.0	28.0	35.0	C61H2855-40**00
9.0	47.0	40.0	28.0	35.0	C61H2905-40**00
9.5	47.0	44.0	30.0	35.0	C61H2955-40**00

备注 Note: 1. “-”表示容量偏差。 “-”=capacitance tolerance code, K=±10%, J=±5%.

2. “**”表示引出端代码(见 table 1)。 “**”=terminal form code (refer to table 1).

3. 本公司所用插片的尺寸参见外形图。 Dimension of tab please refer to outline drawing.

4. When W=37mm, insulated flexible lead gauge =AWG20; When W>37mm, insulated flexible lead gauge =AWG18.

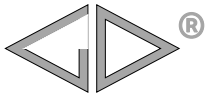


■ 外形尺寸 Dimensions(mm)

引线式 Tinned lead wire					
450Vac(Class B)					
C _N (μF)	W±1	H±1	T±1	P	Part number
1.0	32.0	22.0	13.0	27.5	C61S2105-BB00**
1.2	32.0	25.0	13.0	27.5	C61S2125-BB00**
1.4	32.0	25.0	13.0	27.5	C61S2145-BB00**
1.5	32.0	24.5	15.0	27.5	C61S2155-BB00**
★1.6	32.0	26.0	14.0	27.5	C61S2165-BB00**
★1.8	32.0	27.0	15.0	27.5	C61S2185-BB00**
★2.0	32.0	27.0	16.0	27.5	C61S2205-BB00**
★2.5	32.0	28.0	18.0	27.5	C61S2255-BB00**
★2.8	32.0	30.0	18.0	27.5	C61S2285-BB00**
★3.0	32.0	30.0	20.0	27.5	C61S2305-BB00**
★3.5	32.0	31.0	21.0	27.5	C61S2355-BB00**
★4.0	32.0	34.0	22.0	27.5	C61S2405-BB00**
1.0	36.0	22.5	12.0	32.5	C61S2105-DB00**
1.2	36.0	23.0	13.0	32.5	C61S2125-DB00**
1.4	36.0	23.0	13.0	32.5	C61S2145-DB00**
1.5	36.0	24.5	14.0	32.5	C61S2155-DB00**
1.8	36.0	26.0	14.0	32.5	C61S2185-DB00**
2.0	36.0	27.0	14.0	32.5	C61S2205-DB00**
★2.5	36.0	28.0	16.0	32.5	C61S2255-DB00**
2.8	36.0	28.0	18.0	32.5	C61S2285-DB00**
★3.0	36.0	30.5	18.8	32.5	C61S2305-DB00**
★3.5	36.0	30.5	18.8	32.5	C61S2355-DB00**
4.0	36.0	34.0	22.0	32.5	C61S2405-DB00**
4.5	36.0	34.0	22.0	32.5	C61S2455-DB00**
★5.0	36.0	36.0	24.0	32.5	C61S2505-DB00**
★5.5	36.0	38.0	22.0	32.5	C61S2555-DB00**
★6.0	36.0	38.0	24.0	32.5	C61S2605-DB00**
★6.3	36.0	38.0	24.0	32.5	C61S2635-DB00**
★6.5	36.0	38.0	26.0	32.5	C61S2655-DB00**
★7.0	36.0	39.0	27.0	32.5	C61S2705-DB00**

插片式或绝缘软引出线式 Tabs or Insulated flexible lead wires					
450Vac(Class B)					
C _N (μF)	W±1	H±1	T±1	PA	Part number
1.0	37.0	22.0	12.0	25.0	C61S2105-2B**00
1.2	37.0	23.0	12.0	25.0	C61S2125-2B**00
1.4	37.0	24.0	14.0	25.0	C61S2145-2B**00
1.5	37.0	24.0	14.0	25.0	C61S2155-2B**00
1.8	37.0	26.0	14.0	25.0	C61S2185-2B**00
2.0	37.0	28.0	14.0	25.0	C61S2205-2B**00
2.5	37.0	26.0	18.0	25.0	C61S2255-2B**00
2.8	37.0	30.0	18.0	25.0	C61S2285-2B**00
3.0	37.0	30.0	18.0	25.0	C61S2305-2B**00
4.0	37.0	32.0	20.0	25.0	C61S2405-2B**00
4.5	37.0	34.0	22.0	25.0	C61S2455-2B**00
5.0	37.0	36.0	24.0	25.0	C61S2505-2B**00
5.5	37.0	36.0	24.0	25.0	C61S2555-2B**00
6.0	37.0	38.0	24.0	25.0	C61S2605-2B**00
2.5	47.0	25.0	15.0	35.0	C61S2255-4B**00
3.0	47.0	27.0	15.0	35.0	C61S2305-4B**00
3.5	47.0	28.0	16.0	35.0	C61S2355-4B**00
4.0	47.0	30.0	18.0	35.0	C61S2405-4B**00
4.5	47.0	31.0	19.0	35.0	C61S2455-4B**00
5.0	47.0	30.0	20.0	35.0	C61S2505-4B**00
5.5	47.0	33.0	21.0	35.0	C61S2555-4B**00
6.0	47.0	34.0	22.0	35.0	C61S2605-4B**00
6.5	47.0	34.0	22.0	35.0	C61S2655-4B**00
7.0	47.0	36.0	24.0	35.0	C61S2705-4B**00
7.5	47.0	36.0	24.0	35.0	C61S2755-4B**00
8.0	47.0	36.0	24.0	35.0	C61S2805-4B**00
8.5	47.0	38.0	26.0	35.0	C61S2855-4B**00
9.0	47.0	38.0	26.0	35.0	C61S2905-4B**00
9.5	47.0	40.0	28.0	35.0	C61S2955-4B**00

- 备注 Note: 1. “.” 表示容量偏差。 “.” =capacitance tolerance code, K=±10%, J=±5%。
 2. “**” 表示引出端代码(见 table 1)。“**” =terminal form code (refer to table 1).
 3. When P=22.5mm/27.5mm, d=0.8mm±0.05mm; When P>27.5mm, d=1.0mm±0.05mm.
 4. 本公司所用插片的尺寸参见外形图。 Dimension of tab please refer to outline drawing.
 5. When W=37mm, insulated flexible lead gauge =AWG20; When W>37mm, insulated flexible lead gauge =AWG18.
 6. “★” 表示外壳为圆弧底。 “★” = Arc-bottom of the outer shell.



C61

CBB61 series

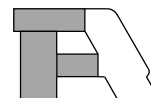
■ 外形尺寸 Dimensions(mm)

引线式 Tinned lead wire

450Vac(Class C)					
C _N (μF)	W±1	H±1	T±1	P	Part number
0.10	26.5	16.0	7.0	22.5	C61S2104-9000**
0.12	26.5	17.0	8.5	22.5	C61S2124-9000**
0.14	26.5	18.5	10.0	22.5	C61S2144-9000**
0.15	26.5	18.5	10.0	22.5	C61S2154-9000**
0.18	26.5	18.5	10.0	22.5	C61S2184-9000**
0.22	26.5	20.0	11.0	22.5	C61S2224-9000**
0.27	26.5	22.0	12.0	22.5	C61S2274-9000**
0.5	32.0	20.0	11.0	27.5	C61S2504-BS00**
★ 1.0	32.0	22.0	11.0	27.5	C61S2105-BS00**
1.2	32.0	22.0	13.0	27.5	C61S2125-BS00**
1.4	32.0	25.0	13.0	27.5	C61S2145-BS00**
1.5	32.0	25.0	13.0	27.5	C61S2155-BS00**
1.6	32.0	25.0	13.0	27.5	C61S2165-BS00**
1.8	32.0	28.0	14.0	27.5	C61S2185-BS00**
2.0	32.0	28.0	14.0	27.5	C61S2205-BS00**
2.2	32.0	28.0	14.0	27.5	C61S2225-BS00**
2.5	32.0	28.0	17.0	27.5	C61S2255-BS00**
2.8	32.0	28.0	17.0	27.5	C61S2285-BS00**
3.0	32.0	30.0	18.0	27.5	C61S2305-BS00**
3.5	32.0	33.0	18.0	27.5	C61S2355-BS00**
4.0	32.0	32.0	20.0	27.5	C61S2405-BS00**
★ 1.0	36.0	20.0	10.0	32.5	C61S2105-DS00**
★ 1.2	36.0	22.0	11.0	32.5	C61S2125-DS00**
★ 1.4	36.0	22.0	11.0	32.5	C61S2145-DS00**
★ 1.5	36.0	22.0	11.0	32.5	C61S2155-DS00**
1.6	36.0	23.0	13.0	32.5	C61S2165-DS00**
1.8	36.0	23.0	13.0	32.5	C61S2185-DS00**
2.0	36.0	23.0	13.0	32.5	C61S2205-DS00**
2.2	36.0	27.0	14.0	32.5	C61S2225-DS00**
2.5	36.0	27.0	14.0	32.5	C61S2255-DS00**
2.8	36.0	29.0	14.0	32.5	C61S2285-DS00**
3.0	36.0	29.0	14.0	32.5	C61S2305-DS00**

450Vac(Class C)					
C _N (μF)	W±1	H±1	T±1	P	Part number
3.5	36.0	28.0	18.0	32.5	C61S2355-DS00**
★ 4.0	36.0	30.5	18.8	32.5	C61S2405-DS00**
4.5	36.0	33.0	18.0	32.5	C61S2455-DS00**
★ 5.0	36.0	32.0	20.0	32.5	C61S2505-DS00**
5.5	36.0	34.0	20.0	32.5	C61S2555-DS00**
6.0	36.0	34.0	22.0	32.5	C61S2605-DS00**
★ 6.3	36.0	36.0	22.0	32.5	C61S2635-DS00**
★ 6.5	36.0	36.0	22.0	32.5	C61S2655-DS00**
★ 7.0	36.0	36.0	24.0	32.5	C61S2705-DS00**
★ 7.5	36.0	38.0	24.0	32.5	C61S2755-DS00**
★ 8.0	36.0	38.0	26.0	32.5	C61S2805-DS00**
★ 8.5	36.0	38.0	26.0	32.5	C61S2855-DS00**
2.0	41.0	24.0	13.0	37.5	C61S2205-FS00**
2.2	41.0	24.0	13.0	37.5	C61S2225-FS00**
2.5	41.0	26.0	15.0	37.5	C61S2255-FS00**
2.8	41.0	26.0	15.0	37.5	C61S2285-FS00**
3.0	41.0	26.0	15.0	37.5	C61S2305-FS00**
★ 3.5	42.0	28.0	14.0	37.5	C61S2355-FS00**
4.0	41.0	30.0	16.0	37.5	C61S2405-FS00**
4.5	41.0	32.0	17.0	37.5	C61S2455-FS00**
5.0	41.0	30.5	18.5	37.5	C61S2505-FS00**
5.5	41.0	33.5	18.5	37.5	C61S2555-FS00**
6.0	41.0	33.5	18.5	37.5	C61S2605-FS00**
★ 6.3	41.0	34.0	20.0	37.5	C61S2635-FS00**
★ 6.5	41.0	34.0	20.0	37.5	C61S2655-FS00**
7.0	41.0	37.0	22.0	37.5	C61S2705-FS00**
7.5	41.0	37.0	22.0	37.5	C61S2755-FS00**
8.0	41.0	37.0	22.0	37.5	C61S2805-FS00**
8.5	42.0	36.0	23.0	37.5	C61S2855-FS00**
9.0	41.0	37.5	27.5	37.5	C61S2905-FS00**
★ 9.5	41.0	38.0	26.0	37.5	C61S2955-FS00**

- 备注 Note: 1. “-”表示容量偏差。 “-”=capacitance tolerance code, K=±10%, J=±5%。
 2. “**”表示引出端代码(见 table 1)。“**”=terminal form code (refer to table 1).
 3. When P=22.5mm/27.5mm, d=0.8mm±0.05mm; When P>27.5mm, d=1.0mm±0.05mm.
 4. “★”表示外壳为圆弧底。“★”=Arc-bottom of the outer shell.



■ 外形尺寸 Dimensions(mm)

插片式或绝缘软引出线式 Tabs or Insulated flexible lead wires

450Vac(Class C)					
C _N (μF)	W±1	H±1	T±1	PA	Part number
0.5	32.0	20.0	11.0	20.0	C61S2504-1S**00
1.0	32.0	26.0	14.0	20.0	C61S2105-1S**00
1.2	32.0	28.0	14.0	20.0	C61S2125-1S**00
1.4	32.0	28.0	14.0	20.0	C61S2145-1S**00
1.5	32.0	33.0	18.0	20.0	C61S2155-1S**00
1.6	32.0	33.0	18.0	20.0	C61S2165-1S**00
1.8	32.0	33.0	18.0	20.0	C61S2185-1S**00
2.0	32.0	33.0	18.0	20.0	C61S2205-1S**00
2.2	32.0	33.0	18.0	20.0	C61S2225-1S**00
2.5	32.0	33.0	18.0	20.0	C61S2255-1S**00
2.8	32.0	37.0	22.0	20.0	C61S2285-1S**00
3.0	32.0	37.0	22.0	20.0	C61S2305-1S**00
3.5	32.0	37.0	22.0	20.0	C61S2355-1S**00
4.0	32.0	40.0	24.0	20.0	C61S2405-1S**00
1.0	37.0	20.0	11.0	25.0	C61S2105-2S**00
1.2	37.0	22.0	13.0	25.0	C61S2125-2S**00
1.4	37.0	22.0	13.0	25.0	C61S2145-2S**00
1.5	37.0	22.0	13.0	25.0	C61S2155-2S**00
1.6	37.0	22.0	13.0	25.0	C61S2165-2S**00
1.8	37.0	24.0	14.0	25.0	C61S2185-2S**00
2.0	37.0	24.0	14.0	25.0	C61S2205-2S**00
2.2	37.0	28.0	14.0	25.0	C61S2225-2S**00
2.5	37.0	28.0	14.0	25.0	C61S2255-2S**00
2.8	37.0	28.0	16.0	25.0	C61S2285-2S**00
3.0	37.0	28.0	16.0	25.0	C61S2305-2S**00
3.5	37.0	30.0	18.0	25.0	C61S2355-2S**00
4.0	37.0	30.0	18.0	25.0	C61S2405-2S**00

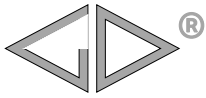
450Vac(Class C)					
C _N (μF)	W±1	H±1	T±1	PA	Part number
4.5	37.0	32.0	20.0	25.0	C61S2455-2S**00
5.0	37.0	32.0	20.0	25.0	C61S2505-2S**00
5.5	37.0	34.0	22.0	25.0	C61S2555-2S**00
6.0	37.0	34.0	22.0	25.0	C61S2605-2S**00
6.3	37.0	34.0	24.0	25.0	C61S2635-2S**00
6.5	37.0	36.0	24.0	25.0	C61S2655-2S**00
7.0	37.0	38.0	24.0	25.0	C61S2705-2S**00
7.5	37.0	38.0	26.0	25.0	C61S2755-2S**00
8.0	37.0	38.0	26.0	25.0	C61S2805-2S**00
8.5	37.0	38.0	26.0	25.0	C61S2855-2S**00
2.0	47.0	24.0	14.0	35.0	C61S2205-4S**00
2.5	47.0	24.0	14.0	35.0	C61S2255-4S**00
3.0	47.0	27.0	15.0	35.0	C61S2305-4S**00
3.5	47.0	27.0	15.0	35.0	C61S2355-4S**00
4.0	47.0	28.0	16.0	35.0	C61S2405-4S**00
4.5	47.0	29.0	17.0	35.0	C61S2455-4S**00
5.0	47.0	30.0	18.0	35.0	C61S2505-4S**00
5.5	47.0	30.0	18.0	35.0	C61S2555-4S**00
6.0	47.0	33.0	19.0	35.0	C61S2605-4S**00
6.5	47.0	33.0	19.0	35.0	C61S2655-4S**00
7.0	47.0	33.0	21.0	35.0	C61S2705-4S**00
7.5	47.0	34.0	22.0	35.0	C61S2755-4S**00
8.0	47.0	34.0	22.0	35.0	C61S2805-4S**00
8.5	47.0	36.0	24.0	35.0	C61S2855-4S**00
9.0	47.0	36.0	24.0	35.0	C61S2905-4S**00
9.5	47.0	36.0	24.0	35.0	C61S2955-4S**00

备注 Note: 1. “-” 表示容量偏差。 “-” =capacitance tolerance code, K=±10%, J=±5%.

2. “***” 表示引出端代码(见 table 1)。 “***” =terminal form code (refer to table 1).

3. 本公司所用插片的尺寸参见外形图。 Dimension of tab please refer to outline drawing.

4. When W=37mm, insulated flexible lead gauge =AWG20; When W>37mm, insulated flexible lead gauge =AWG18.



C61

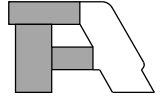
CBB61 series

外形尺寸 Dimensions(mm)

引线式 Tinned lead wire					
300Vac/350Vac(Class C) [#]					
C _N (μF)	W±1	H±1	T±1	P	Part number
0.5	32.0	17.0	8.0	27.5	C61R2504-B000**
0.82	32.0	18.0	9.0	27.5	C61R2824-B000**
1.0	32.0	20.0	11.0	27.5	C61R2105-B000**
1.5	32.0	22.0	13.0	27.5	C61R2155-B000**
2.0	32.0	24.5	15.0	27.5	C61R2205-B000**
2.5	32.0	28.0	14.0	27.5	C61R2255-B000**
3.0	32.0	28.0	17.0	27.5	C61R2305-B000**
3.5	32.0	28.0	17.0	27.5	C61R2355-B000**
★ 4.0	32.0	33.0	20.0	27.5	C61R2405-B000**
★ 4.5	32.0	33.0	20.0	27.5	C61R2455-B000**
★ 5.0	32.0	33.0	20.0	27.5	C61R2505-B000**
★ 1.0	36.0	20.0	10.0	32.5	C61R2105-D000**
1.5	36.0	23.0	13.0	32.5	C61R2155-D000**
2.0	36.0	27.0	14.0	32.5	C61R2205-D000**
2.5	36.0	27.0	14.0	32.5	C61R2255-D000**
2.8	36.0	28.0	18.0	32.5	C61R2285-D000**
3.0	36.0	28.0	18.0	32.5	C61R2305-D000**
3.3	36.0	28.0	18.0	32.5	C61R2335-D000**
★ 3.5	36.0	30.5	18.8	32.5	C61R2355-D000**
★ 4.0	36.0	30.5	18.8	32.5	C61R2405-D000**
4.5	36.0	33.0	18.0	32.5	C61R2455-D000**
★ 5.0	36.0	33.0	20.0	32.5	C61R2505-D000**
★ 5.5	36.0	33.0	20.0	32.5	C61R2555-D000**
★ 6.0	36.0	37.0	22.0	32.5	C61R2605-D000**
★ 6.5	36.0	37.0	22.0	32.5	C61R2655-D000**
★ 7.0	36.0	38.0	24.0	32.5	C61R2705-D000**
★ 7.5	36.0	38.0	24.0	32.5	C61R2755-D000**
★ 8.0	36.0	41.0	26.0	32.5	C61R2805-D000**
★ 9.0	36.0	41.0	26.0	32.5	C61R2905-D000**

插片式或绝缘软引出线式 Tabs or Insulated flexible lead wires					
300Vac/350Vac(Class C) [#]					
C _N (μF)	W±1	H±1	T±1	PA	Part number
1.0	37.0	21.0	11.0	25.0	C61R2105-20****
1.5	37.0	23.0	13.0	25.0	C61R2155-20****
2.0	37.0	28.0	14.0	25.0	C61R2205-20****
2.5	37.0	28.0	14.0	25.0	C61R2255-20****
3.0	37.0	30.0	18.0	25.0	C61R2305-20****
3.5	37.0	30.0	18.0	25.0	C61R2355-20****
4.0	37.0	30.0	18.0	25.0	C61R2405-20****
4.5	37.0	33.0	20.0	25.0	C61R2455-20****
5.0	37.0	33.0	20.0	25.0	C61R2505-20****
5.5	37.0	37.0	22.0	25.0	C61R2555-20****
6.0	37.0	37.0	22.0	25.0	C61R2605-20****
6.5	37.0	37.0	22.0	25.0	C61R2655-20****
7.0	37.0	38.0	24.0	25.0	C61R2705-20****
7.5	37.0	38.0	24.0	25.0	C61R2755-20****
8.0	37.0	41.0	26.0	25.0	C61R2805-20****
9.0	37.0	41.0	26.0	25.0	C61R2905-20****
3.5	47.0	28.0	16.0	35.0	C61R2355-40****
4.0	47.0	28.0	16.0	35.0	C61R2405-40****
4.5	47.0	30.0	18.0	35.0	C61R2455-40****
5.0	47.0	30.0	18.0	35.0	C61R2505-40****
5.5	47.0	32.0	18.0	35.0	C61R2555-40****
6.0	47.0	34.0	18.0	35.0	C61R2605-40****
6.5	47.0	34.0	20.0	35.0	C61R2655-40****
7.0	47.0	34.0	20.0	35.0	C61R2705-40****
7.5	47.0	34.0	22.0	35.0	C61R2755-40****
8.0	47.0	36.0	24.0	35.0	C61R2805-40****
9.0	47.0	36.0	24.0	35.0	C61R2905-40****
10.0	47.0	38.0	26.0	35.0	C61R2106-40****
11.0	47.0	38.0	26.0	35.0	C61R2116-40****
12.0	47.0	40.0	28.0	35.0	C61R2126-40****
12.5	47.0	40.0	28.0	35.0	C61R212E-40****
13.0	47.0	40.0	28.0	35.0	C61R2136-40****
14.0	47.0	44.0	30.0	35.0	C61R2146-40****
15.0	47.0	44.0	30.0	35.0	C61R2156-40****
17.5	47.0	46.0	32.0	35.0	C61R217E-40****
15.0	57.0	40.0	28.0	45.0	C61R2156-50****
17.5	57.0	44.0	30.0	45.0	C61R217E-50****
20.0	57.0	44.0	30.0	45.0	C61R2206-50****
20.0	67.0	42.0	28.0	55.0	C61R2206-60****

- 备注 Note: 1. “.”表示容量偏差。 “.”=capacitance tolerance code, K=±10%, J=±5%。
 2. “***”表示引出端代码(见 table 1)。“***”=terminal form code (refer to table 1)。
 3. “#”当额定电压为 300Vac 时,第 4-5 位是 Q1。“#”When the rated voltage is 300Vac, the digit 4-5 is Q1。
 4. When P=22.5mm/27.5mm, d=0.8mm±0.05mm; When P>27.5mm, d=1.0mm±0.05mm。
 5. 本公司所用插片的尺寸参见外形图。 Dimension of tab please refer to outline drawing。
 6. When W=37mm, insulated flexible lead gauge =AWG20; When W>37mm, insulated flexible lead gauge =AWG18。
 7. “★”表示外壳为圆弧底。“★”=Arc-bottom of the outer shell。

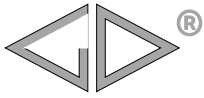


■ 外形尺寸 Dimensions(mm)

引线式 Tinned lead wire					
250Vac (Class C)					
C _N (μF)	W±1	H±1	T±1	P	Part number
★ 0.5	32.0	16.0	7.0	27.5	C61E2504-B000**
0.82	32.0	17.0	8.0	27.5	C61E2824-B000**
1.0	32.0	18.0	9.0	27.5	C61E2105-B000**
1.5	32.0	20.0	11.0	27.5	C61E2155-B000**
2.0	32.0	20.0	11.0	27.5	C61E2205-B000**
2.5	32.0	22.0	13.0	27.5	C61E2255-B000**
3.0	32.0	24.5	15.0	27.5	C61E2305-B000**
3.5	32.0	24.5	15.0	27.5	C61E2355-B000**
4.0	32.0	28.0	17.0	27.5	C61E2405-B000**
4.5	32.0	28.0	17.0	27.5	C61E2455-B000**
5.0	32.0	28.0	17.0	27.5	C61E2505-B000**
★ 1.0	36.0	20.0	10.0	32.5	C61E2105-D000**
★ 1.5	36.0	20.0	10.0	32.5	C61E2155-D000**
2.0	36.0	23.0	13.0	32.5	C61E2205-D000**
2.5	36.0	23.0	13.0	32.5	C61E2255-D000**
2.8	36.0	23.0	13.0	32.5	C61E2285-D000**
3.0	36.0	27.0	14.0	32.5	C61E2305-D000**
3.3	36.0	27.0	14.0	32.5	C61E2335-D000**
3.5	36.0	27.0	14.0	32.5	C61E2355-D000**
4.0	36.0	27.0	14.0	32.5	C61E2405-D000**
★ 4.5	36.0	30.5	18.8	32.5	C61E2455-D000**
★ 5.0	36.0	30.5	18.8	32.5	C61E2505-D000**
★ 5.5	36.0	30.5	18.8	32.5	C61E2555-D000**
★ 6.0	36.0	30.5	18.8	32.5	C61E2605-D000**
6.5	36.0	33.0	18.0	32.5	C61E2655-D000**
7.0	36.0	33.0	18.0	32.5	C61E2705-D000**
★ 7.5	36.0	36.0	20.0	32.5	C61E2755-D000**
★ 8.0	36.0	36.0	20.0	32.5	C61E2805-D000**
★ 9.0	36.0	36.0	20.0	32.5	C61E2905-D000**

插片式或绝缘软引出线式 Tabs or Insulated flexible lead wires					
250Vac (Class C)					
C _N (μF)	W±1	H±1	T±1	PA	Part number
1.0	37.0	20.0	10.0	25.0	C61E2105-20****
1.5	37.0	20.0	10.0	25.0	C61E2155-20****
2.0	37.0	23.0	13.0	25.0	C61E2205-20****
2.5	37.0	23.0	13.0	25.0	C61E2255-20****
3.0	37.0	28.0	14.0	25.0	C61E2305-20****
3.5	37.0	28.0	14.0	25.0	C61E2355-20****
4.0	37.0	28.0	14.0	25.0	C61E2405-20****
4.5	37.0	30.0	18.0	25.0	C61E2455-20****
5.0	37.0	30.0	18.0	25.0	C61E2505-20****
5.5	37.0	30.0	18.0	25.0	C61E2555-20****
6.0	37.0	30.0	18.0	25.0	C61E2605-20****
6.5	37.0	33.0	18.0	25.0	C61E2655-20****
7.0	37.0	33.0	18.0	25.0	C61E2705-20****
7.5	37.0	36.0	20.0	25.0	C61E2755-20****
8.0	37.0	36.0	20.0	25.0	C61E2805-20****
9.0	37.0	36.0	20.0	25.0	C61E2905-20****
3.5	47.0	26.0	14.0	35.0	C61E2355-40****
4.0	47.0	26.0	14.0	35.0	C61E2405-40****
4.5	47.0	26.0	14.0	35.0	C61E2455-40****
5.0	47.0	28.0	16.0	35.0	C61E2505-40****
5.5	47.0	28.0	16.0	35.0	C61E2555-40****
6.0	47.0	28.0	16.0	35.0	C61E2605-40****
6.5	47.0	30.0	18.0	35.0	C61E2655-40****
7.0	47.0	30.0	18.0	35.0	C61E2705-40****
7.5	47.0	30.0	18.0	35.0	C61E2755-40****
8.0	47.0	30.0	18.0	35.0	C61E2805-40****
9.0	47.0	34.0	18.0	35.0	C61E2905-40****
10.0	47.0	34.0	20.0	35.0	C61E2106-40****
11.0	47.0	34.0	22.0	35.0	C61E2116-40****
12.0	47.0	34.0	22.0	35.0	C61E2126-40****
12.5	47.0	36.0	24.0	35.0	C61E212E-40****
13.0	47.0	36.0	24.0	35.0	C61E2136-40****
14.0	47.0	36.0	24.0	35.0	C61E2146-40****
15.0	47.0	38.0	26.0	35.0	C61E2156-40****
17.5	47.0	40.0	28.0	35.0	C61E217E-40****
15.0	57.0	36.0	22.0	45.0	C61E2156-50****
17.5	57.0	38.0	24.0	45.0	C61E217E-50****
20.0	57.0	38.0	24.0	45.0	C61E2206-50****
20.0	67.0	36.0	24.0	55.0	C61E2206-60****

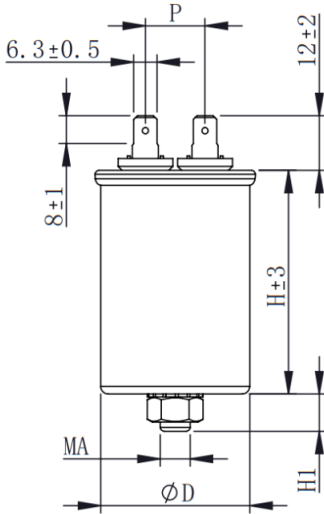
- 备注 Note: 1. “.”表示容量偏差。 “.” =capacitance tolerance code, K=±10%, J=±5%。
 2. “***”表示引出端代码(见 table 1)。“***” =terminal form code (refer to table 1)。
 3. When P=22.5mm/27.5mm, d=0.8mm±0.05mm; When P>27.5mm, d=1.0mm±0.05mm。
 4. 本公司所用插片的尺寸参见外形图。 Dimension of tab please refer to outline drawing。
 5. When W=37mm, insulated flexible lead gauge =AWG20; When W>37mm, insulated flexible lead gauge =AWG18。
 6. “★”表示外壳为圆弧底。“★” = Arc-bottom of the outer shell。



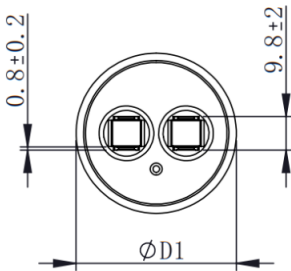
C65
CBB65 series

金属化聚丙烯膜交流电动机电容器 (圆柱形、铝外壳、防爆)
M etallized polypropylene film AC motor capacitor
(column, aluminum case, anti-explosion)

■ 外形图 Outline Drawing



D±1	40	45~50	55	60
H1±1	10	10	12	16
P±1.5	16	18	20	20
MA	M8	M8	M10	M12



■ 特点

- 适用于频率为 50Hz/60Hz 交流电源供电的
单相电动机起动和运转
- 有自愈特性
- 高稳定性, 可靠性
- 防爆设计, 更安全

■ Features

- Widely applied to starting and running of AC single-phase
motors at 50Hz/60Hz frequency power
- Self-healing property
- Excellent stable performance and reliability
- Anti-explosion design, more safety

■ 安全认证 Safety Approval

●		CQC (中国)	GB/T 3667.1-2016 A.C. motor capacitors, 5.0µF~ 85.0µF, 450Vac, Class C, 50Hz/60Hz, S2, SH, 40/70/21 证书号(Certificate No.): CQC03002004845
●		VDE (德国)	EN 60252-1:2011+A1:2013 A.C. motor capacitors, 5.0µF~ 65µF, 450Vac, Class C, 50Hz/60Hz,S2, SH, 40/70/21 证书号(Certificate No.): 40007023
●		UL/CUL (美国/加拿大)	UL 810,CSA C22.2.No.190 capacitors, "Protected" , 10 000AFC, max.540Vac, 50Hz/60Hz, max. 90°C 证书号(File No.): E232771, CCN:CYWT2/8



技术要求 Specifications

引用标准 Reference standards	GB/T 3667.1 (IEC 60252-1)		
额定电压 Rated voltage (U_N)	450Vac		
额定频率 Rated frequency (f_N)	50Hz/60Hz		
额定电容量 Rated capacitance (C_N)	5.0 μ F~85.0 μ F		
额定电流 Rated current (I_N)	$I_N=2\pi f_N C_N U_N$		
电容量偏差 Capacitance tolerance	$\pm 5\%$ (J), $\pm 10\%$ (K), $-5\% \sim +10\%$ (6)		
运行等级 Class of operation	Class C		
气候类别 Climatic category	40/70/21		
极间耐电压 Test voltage between terminals (U_{T-T})	900Vac (50Hz/60Hz), 2s		
极壳耐电压 Test voltage between terminals to case (U_{T-C})	3 000Vac (50Hz/60Hz), 2s		
最高运行电压 Maximum permissible voltage	1.1 U_N		
最高运行电流 Maximum permissible current	1.3 I_N		
绝缘电阻 Insulation resistance ($IR \times C_N$)	$\geq 3\ 000s$ (20°C, 100V, 1min)		
电容损耗角正切 Dissipation factor ($\tan \delta$)	$C_N \leq 10\mu F$	$\leq 20 \times 10^{-4}$ (20°C, 1kHz)	
	$10\mu F < C_N \leq 33\mu F$	$\leq 60 \times 10^{-4}$ (20°C, 1kHz)	
	$C_N > 33\mu F$	$\leq 80 \times 10^{-4}$ (20°C, 1kHz)	
安装 Installation	位置 Position	端子朝上 Terminals upright	
	引出端形式 Terminal form	AMP250# 插片每边 2 个 Two AMP250# per side	
	安装形式 Fixed style	底部螺栓 M8、M10 或 M12 Bottom-bolt M8, M10 or M12	
中部卡圈 Ring-clip in the middle of case			
最大安装扭矩 Max. torque of installation	5N·m (M8)	7N·m (M10)	10N·m (M12)

产品编码说明 Part number code system

15 位产品代码如下:

The 15 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	6	5												

第 1~3 位 型号代码

C65=CBB65

Digit 1 to 3

Series code

C65=CBB65

第 4~5 位 额定均方根电压

S2=450Vac

Digit 4 to 5

Rated RMS voltage

S2=450Vac

第 6~8 位 标称容量

举例: 156=15 $\times 10^6$ pF=15.0 μ F

Digit 6 to 8

Rated capacitance value

for example: 156=15 $\times 10^6$ pF=15.0 μ F

第 9 位 容量偏差

J= $\pm 5\%$, K= $\pm 10\%$, 6= $-5\% \sim +10\%$

Digit 9

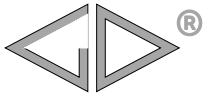
Capacitance tolerance

J= $\pm 5\%$, K= $\pm 10\%$, 6= $-5\% \sim +10\%$

第 10~15 位 内部特征码

Digit 10 to 15

Internal use



■ 外形尺寸 Dimensions

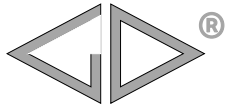
U _N =450Vac					U _N =450Vac				
C _N (μF)	D±1 (mm)	H±3 (mm)	P±1.5 (mm)	Part number	C _N (μF)	D±1 (mm)	H±3 (mm)	P±1.5 (mm)	Part number
5	40	60	16	C65S2505-*****	33	45	110	18	C65S2336-*****
6	40	60	16	C65S2605-*****	35	45	110	18	C65S2356-*****
7	40	60	16	C65S2705-*****	36	45	110	18	C65S2366-*****
8	40	60	16	C65S2805-*****	40	50	110	18	C65S2406-*****
10	40	60	16	C65S2106-*****	41	50	110	18	C65S2416-*****
11	45	60	18	C65S2116-*****	42	50	110	18	C65S2426-*****
12	45	60	18	C65S2126-*****	45	50	110	18	C65S2456-*****
14	45	60	18	C65S2146-*****	46	50	110	18	C65S2466-*****
11	40	75	16	C65S2116-*****	47	55	110	20	C65S2476-*****
12	40	75	16	C65S2126-*****	48	55	110	20	C65S2486-*****
14	40	75	16	C65S2146-*****	50	55	110	20	C65S2506-*****
15	40	75	16	C65S2156-*****	52	55	110	20	C65S2526-*****
16	45	75	18	C65S2166-*****	53	55	110	20	C65S2536-*****
17	45	75	18	C65S2176-*****	55	55	110	20	C65S2556-*****
17.5	45	75	18	C65S217E-*****	58	55	110	20	C65S2586-*****
20	45	75	18	C65S2206-*****	47	50	120	18	C65S2476-*****
25	50	75	18	C65S2256-*****	48	50	120	18	C65S2486-*****
26	50	75	18	C65S2266-*****	50	50	120	18	C65S2506-*****
30	50	85	18	C65S2306-*****	52	50	120	18	C65S2526-*****
16	40	100	16	C65S2166-*****	53	55	120	20	C65S2536-*****
17	40	100	16	C65S2176-*****	54	55	120	20	C65S2546-*****
17.5	40	100	16	C65S217E-*****	55	55	120	20	C65S2556-*****
20	40	100	16	C65S2206-*****	58	55	120	20	C65S2586-*****
25	40	100	16	C65S2256-*****	60	55	120	20	C65S2606-*****
26	45	100	18	C65S2266-*****	63	55	120	20	C65S2636-*****
30	45	100	18	C65S2306-*****	65	55	120	20	C65S2656-*****
32	45	100	18	C65S2326-*****	53	50	130	18	C65S2536-*****
33	50	100	18	C65S2336-*****	55	50	130	18	C65S2556-*****
35	50	100	18	C65S2356-*****	58	50	130	18	C65S2586-*****
36	50	100	18	C65S2366-*****	60	50	130	18	C65S2606-*****
40	50	100	18	C65S2406-*****	63	55	130	20	C65S2636-*****
					65	55	130	20	C65S2656-*****
					69	55	130	20	C65S2696-*****
					70	55	130	20	C65S2706-*****
					75	60	130	20	C65S2756-*****
					80	60	130	20	C65S2806-*****
					85	60	130	20	C65S2856-*****

备注 Note: 1. “-”表示电容量偏差。 “-” = Capacitance tolerance code, J=±5%, K=±10%, 6=-5%~+10%。
 2. “*****”表示内部特征码。 “*****” = Internal use
 3. 其他容量、尺寸系列可按客户需要商定。 Other values and dimensions available on request.



灯具电容器 Capacitors for lamps

型号 Type	特征 Description	安全认证 Safety Approvals	规格 Rating	页码 Page
C62 (CBB60L)	金属化, 塑壳/铝壳封装 Metallized, Plastic or Aluminum case	CQC TUV(Rheinland)	250Vac(50Hz/60Hz): 2.0μF ~50.0μF	195
C63 (CBB60H)	金属化, 塑壳封装 Metallized, Plastic case	CQC(250Vac) UL/CUL(construction only)	200Vac(50Hz/60Hz): 5.0μF ~75.0μF 240Vac(50Hz/60Hz): 5.0μF ~75.0μF 280Vac(50Hz/60Hz): 5.0μF ~72.0μF 300Vac(50Hz/60Hz): 5.0μF ~55.0μF 330Vac(50Hz/60Hz): 5.0μF ~50.0μF 400Vac(50Hz/60Hz): 5.0μF ~32.0μF	198
C64 (CBB60M)	金属化, 塑壳封装 Metallized, Plastic case	UL-CUL(construction only)	240Vac(50Hz/60Hz): 5.0μF ~75.0μF 280Vac(50Hz/60Hz): 5.0μF ~75.0μF 330Vac(50Hz/60Hz): 5.0μF ~72.0μF 350Vac(50Hz/60Hz): 5.0μF ~55.0μF 400Vac(50Hz/60Hz): 5.0μF ~50.0μF	202
C6B	金属化, 铝壳封装 Metallized, Aluminum case	CQC(540Vac) UL-CUL(max. 540Vac)	280Vac(50Hz/60Hz): 4.0μF ~100.0μF 330Vac(50Hz/60Hz): 4.0μF ~83.0μF 400Vac(50Hz/60Hz): 4.0μF ~68.0μF 480Vac(50Hz/60Hz): 4.0μF ~60.0μF 540Vac(50Hz/60Hz): 4.0μF ~51.0μF 600Vac(50Hz/60Hz): 4.0μF ~40.0μF	206



一、灯具电容器的标准体系

灯具电容器的主要标准是由中国国家标准化管理委员会发布的 **GB/T 18489** 和 **GB/T 18504** (等同于由 IEC 34 技术委员会 (灯及其有关附件) 的 **34C** 技术委员会 (气体放电灯附件) 制定的 **IEC 61048** 和 **IEC 61049**)。

UL 810 标准因其广泛适用性, 也是灯具电容器的常用标准之一。

我司主要在上述标准的基础上制定了各个型号交流灯具电容器的企业标准, 以供内部引用。

另外, 灯具电容器的部分标准术语也参考了其它电容器标准中的定义, 不再一一列出。

以上, 构成了灯具电容器的标准体系

灯具电容器的标准体系, 举例如下:

一. The standard system of capacitors for use in tubular fluorescent and other discharge lamp circuits

The main standards are GB/T 18489 & GB/T 18504, published by Standardization administration of the people' s republic of China. These standards are equal to IEC 61048 & IEC 61049, prepared by subcommittee 34C: Auxiliaries for lamps, of IEC technical committee 34: Lamps and related equipment.

The standard UL 810, because of its wide applicability, is also one of the criteria commonly used in lighting capacitors.

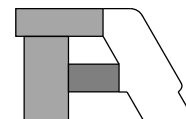
According to the basic requirements of above standards, Faratronic made detailed standards of various lighting capacitor type for internal use.

In additional, some terminologies are also reference to other capacitor standards, which will be not listed below.

The standard system of lamp capacitors is made up of all above standards.

Following please find the corresponding specification lists for lamp capacitors.

标准号(No.)	标准 (Standards)
GB/T 18489 (IEC 61048)	管形荧光灯和其他放电灯线路用电容器 一般要求和安全要求 Capacitors for use in tubular fluorescent and other discharge lamp circuits – General and safety requirements
GB/T 18504 (IEC 61049)	管形荧光灯和其他放电灯线路用电容器 性能要求 Capacitors for use in tubular fluorescent and other discharge lamp circuits – Performance requirements
UL 810	电容器 Capacitors
	详细规范: Detail specification for each type



二、常用的标准术语

1. 额定容量 C_N

设计电容时采用的电容值。

2. 额定电压 U_N

电容器上所标志的正弦波电压的有效值。

3. 额定频率 f_N

设计电容时采用的最高频率。

4. 额定电流 I_N

在额定电压和频率下的交流电流的有效值。

5. 电容器损耗角正切 $\tan\delta$

在额定频率的正弦波电压下，电容器的损耗功率除以电容器的无功功率所得的值。

6. 额定最高温度 t_c

电容器表面最热部分在工作期间不应超过的温度。

7. 额定最低温度

电容器表面任何部分在低于该值时不应给电容器通电的温度。

8. 放电电阻

跨接于电容器接线端子之间的电阻，用来降低储存于电容器内的电荷造成冲击的危险。

(若电容器不包含放电电阻，厂家必须提供绝缘电阻或时间常数等参数。)

9. A 类电容器

无断路装置的自愈式并联电容器。

10. B 类电容器

有断路装置用于串联照明电路中的自愈式电容器或自愈式并联电容。

二、Terminologies

1. Rated capacitance C_N

Capacitance value for which the capacitor has been designed.

2. Rated voltage U_N

r.m.s. value of the sinusoidal voltage, marked on the capacitor

3. Rated frequency f_N

Highest frequency for which the capacitor has been designed.

4. Rated current I_N

r.m.s. value of the alternating current at the rated voltage and frequency.

5. Loss factor of the capacitor $\tan\delta$

Power loss of the capacitor divided by the reactive power of the capacitor at a sinusoidal voltage of rated frequency.

6. Rated maximum temperature t_c

Temperature, in degrees Celsius, which must not be exceeded by the hottest part of the capacitor surface during operation.

7. Rated minimum temperature

Temperature, in degrees celsius, of any part of the surface of the capacitor below which the capacitor must not be energized.

8. Discharge resistor

Resistor connected across the terminals of a capacitor to reduce shock hazard from the charge stored in the capacitor.

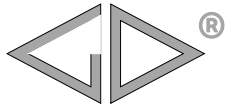
(If the capacitor does not contain discharge resistor, manufacturer must provide Insulation Resistance or Time Constant.)

9. Capacitor of type A

Self-healing parallel capacitor not necessarily including an interrupting device.

10. Capacitor of type B

Self-healing capacitor used in series lighting circuits or a self-healing parallel capacitor, containing interrupter device.



11. 容量温度系数 α

电容器在规定的温度范围内容量随温度的变化率。通常以 20°C 时电容量为参考，用百万分之一每摄氏 (10⁻⁶/°C) 表示。(10⁻⁶/°C = 1ppm/°C)

$$\alpha_i = \frac{C_i - C_0}{C_0(T_i - T_0)}$$

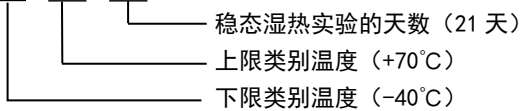
C_i: 电容器在温度 T_i 时容量

C₀: 电容器在 T₀(20±2)°C 时的容量

12. 气候类别

电容器所属的气候类别用斜线分隔的三个数来表示 (IEC 60068-1: 如: 40/70/21)。

40 / 70 / 21



13. 绝缘电阻(IR)/时间常数(t)

绝缘电阻为电容器充电 1 分钟后所加的直流电压和流经电容器的漏电流值的比值，单位为 MΩ。时间常数为绝缘电阻和电容量的乘积，通常以秒表示，公式如下：

$$t[s] = IR[M\Omega] \times C_N[\mu F]$$

一般情况下，绝缘电阻用于描述小容量电容器的绝缘特性，时间常数用于描述大容量 (如: C_N > 0.33μF) 电容器的绝缘特性。

(若电容器包含放电电阻时，通过设备测量出的绝缘电阻值实际上为放电电阻值。)

14. 自愈性(仅对金属化膜电容器)

电容器的电特性在发生局部电介质击穿后迅速而基本地恢复到击穿前的值的过程。

金属化膜的金属镀层是通过真空蒸发的方法将金属沉积在薄膜上，厚度只有几十个纳米，当介质上存在弱点、杂质时，局部电击穿就可能发生，电击穿处的电弧放电所产生的能量足以使电击穿点邻近处的金属镀层蒸发，使击穿点与周围极板隔开，电容器电气性能即可恢复正常。

11. Temperature coefficient of capacitance α

The change rate of capacitance with temperature measured over a specified range of temperature. It is normally expressed in parts per million per Celsius degree (10⁻⁶/°C) and referred to 20°C.

$$\alpha_i = \frac{C_i - C_0}{C_0(T_i - T_0)}$$

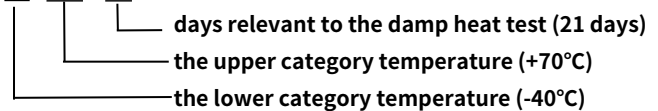
C_i: Capacitance at temperature T_i.

C₀: Capacitance at temperature T₀(20±2)°C.

12. Climatic category

The climatic category which the capacitor belongs to is expressed in three numbers separated by slashes, (IEC 60068-1: example 40/70/21).

40 / 70 / 21



13. Insulation Resistance(IR) / Time Constant (t)

The insulation resistance is the ratio between an applied D.C. voltage and the resulting leakage current after a minute of charge. It is expressed in MΩ. The time constant is expressed in Seconds with the following formula:

$$t[s] = IR[M\Omega] \times C_N[\mu F]$$

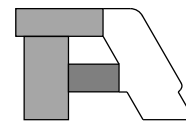
In general, Insulation resistance is used for describing smaller capacitance capacitors' insulation character, Time Constant for describing bigger one's (example: C_N > 0.33μF).

(If the capacitor contains discharge resistor, the value measured by instrument is discharge resistor value.)

14. Self-healing(Only for metallized film capacitor)

Process by which the electrical properties of the capacitor, after a local breakdown of the dielectric, are rapidly and essentially restored to the values before the breakdown.

The metal coatings of the metallized film, which are vacuum-deposited directly onto the plastic film, have a thickness of only several tens nm. At weak points or impurities in the dielectric, a dielectric breakdown would occur. The energy released by the arc discharge in the breakdown channel is sufficient to totally evaporate the thin metal coating in the vicinity of the channel. The insulated region thus resulting around the former faulty area will cause the capacitor to regain its full operation ability.



三、使用薄膜电容器的注意事项:

1. 工作电压:

薄膜电容器的选用取决于施加的最高电压, 并受施加的电压波形、电流波形、频率、环境温度(电容器表面温度)、电容量等因数的影响。使用前请先检查电容器两端的电压波形、电流波形和频率(在高频场合, 允许电压随着电容器类型的不同而改变, 详细资料请参阅说明书)是否在额定值内。

2. 工作电流

当电容器中通过持续电流时, 热量累积会使电容器整体温度升高。当电容表面温度超出允许的额定最高温度时, 可能会导致电容器短路甚至燃烧。

工作电流被认为是由击穿模式决定的脉冲电流和连续电流(均方根电流)组成, 当使用时, 需确认这两个电流都在允许范围之内。

3. 谐波

谐波指的是电源中相对于 50Hz 或 60Hz 的多次正弦电流和电压波形。谐波主要由电网中的变频器、电子驱动器、焊机和 UPS 等电子设备负载引起。谐波会造成电容器的过电压、过电流:

1) 过电压

过电压会加速聚丙烯介质老化, 缩短电容器寿命。一般来说, 在额定电压之上, 电容器电压每升高 8%, 电容器寿命会减半。同时, 过电压会导致电容器局部放电强度加大, 导致聚丙烯介质介电性能劣化, 甚至突发性的击穿。

2) 过电流

过电流会使电容器损耗功率大幅增加, 引起电容器异常发热, 导致热击穿, 严重缩短电容器寿命。综上所述, 谐波对电容器的危害十分严重, 在电容器的使用过程中, 所采用的电网必须符合国标 GB/T 14549《电能质量 公用电网谐波》的相关规定

4. 各种波形的有效值换算关系

不同的波形有效值按下面的公式计算。

种类(type)	1	2	3	4
波形 (waveform)				
有效值(rms)	$E/\sqrt{2}$	$E/\sqrt{2}$	$E\sqrt{t/(2T)}$	$E/\sqrt{3}$

三、Caution items in using plastic film capacitors

1. Operation voltage

The plastic film capacitor varies in the maximum applicable voltage depending on the applied voltage waveform, current waveform, frequency, ambient temperature (capacitor surface temperature), capacitance value, etc. Be sure to use capacitors within the specified values by checking the voltage waveform, current waveform, and frequency applied to them (In the application of high frequency, the permissible voltage varies with the type of the capacitor. For detail see the specification).

2. Operating Current

When continuous current flows through the capacitor, the temperature of whole capacitor will rise, induced by accumulated heat. If the temperature exceeds admitted rated maximum temperature, it might cause a short circuit or fire. The operating current must be considered by dividing into pulse current and continuous current (rms current) depending on the break down mode, and when using, should make sure the both currents are within the permissible values.

3. Harmonics

Harmonics are sinusoidal voltages and currents with frequencies that are multiples of a 50Hz or 60Hz power supply frequency. Harmonics result from the operation of electrical loads with non-linear voltage current characteristics. They are mainly caused by loads operated with modern electronic devices, such as converters, electrical drives, welding machines and uninterruptible power supplies (UPS). Harmonics may cause overvoltage, overcurrent.

1. Overvoltage

Overvoltage will accelerate aging of polypropylene film, which will reduce capacitor's life.

Generally speaking, overvoltage of 8% cuts life expectancy in half. At the same time, it will enhance local discharge, causing electric property worse, even suddenly broken down.

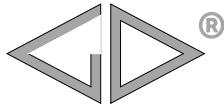
2. Overcurrent

Overcurrent will add loss power, which will bring thundering heat inside capacitor, even hot-breaking down. It will reduce capacitor's life.

In a word, harmonics are seriously harmful. Therefore, when use capacitor, applied supply net must accord with GB/T 14549: Quality of electric energy supply, harmonics in public supply network or other IEC standards.

4. Calculation of rms in various waveforms

In each waveform, calculate the rms value in the following formula.



种类(type)	5	6	7	8
波形 (waveform)				
有效值(rms)	$E\sqrt{t/(3T)}$	E	$E\sqrt{t/T}$	$\sqrt{\frac{t}{2T}(E_1^2 + E_2^2 + E_3^2 + E_4^2)}$

5. 因薄膜振动产生的嗡嗡声

电容器的嗡嗡声是由于电容器薄膜受到两电极间库仑力的作用，产生的振动而发出的声音。施加的电压和频率波形失真越严重，所产生的嗡嗡声越大。但这种嗡嗡声对电容器不会产生任何破坏作用。

6. 工作温度

当电容器处于高温环境下工作时，加上自身发热，电容器的整体温度会快速上升，其介电性能会逐渐下降。当电容器表面温度超过额定最高温度时，电容器的介电稳定性平衡被打破，最后发生电容失效。

因此，需要确保电容器工作时，表面温度不要超过允许的额定最高温度。

7. 高湿环境

如果长时间使用在高湿环境下，电容器可能会吸收潮气、电极被氧化，导致电容器损坏。在 AC 条件下使用，高湿环境将会加剧电晕的影响，从而引起电容量下降、损耗增加。

8. 贮存条件

8.1 电容器不能贮存在腐蚀性的空气环境中，特别是存在氯化物、硫化物、酸、碱、盐、有机溶剂或类似物质时。

8.2 产品不能暴露在高温和高湿状态，必须保存在以下环境中：（在不拆开原包装的基础上）

温度：-40°C 到 35°C

湿度：年平均值不超过 70%RH

全年任意 30 天不超过 80%RH

贮存时间：不超过 12 个月（从产品包装或产品本体上的日期算起）

四、绿色产品

RoHS 符合性

在此产品目录中的法拉公司的产品均符合 RoHS 指令和《电子信息产品污染控制管理办法》的要求。

5. Buzzing noise

Any buzzing noise produced by capacitor is caused by the vibration of the film due to the coulomb force that is generated between the electrodes with opposite poles. If the wave-form with a high distortion rate or frequency is applied across the capacitor, the buzzing noise will become louder. But the buzzing noise is of no damage to capacitor.

6. Operating temperature

When capacitor works in high-temperature, considering the heat power from capacitor, the whole temperature of capacitor will rise quickly, and capacitor's dielectrical property will get worse. When capacitor surface temperature exceeds admitted rated maximum temperature, the dielectric stability of the capacitor may lose the balance, which will cause fail.

So, make sure the capacitor surface temperature does not exceed admitted value.

6. Humid ambient

If used for a long time in a humid ambient, the capacitor might absorb humidity and oxidise the electrodes causing breakage of the capacitor. If case of AC application, high humidity would increase the corona effect. This phenomenon causes a drop of capacitance and an increase of capacitor losses.

8. Storage conditions

7.1 Capacitors may not be stored in corrosive atmospheres, particularly not when chlorides, sulfides, acids, lye, salts, organic solvents or similar substances are present.

7.2 It shouldn't be located in particularly high temperature and high humidity, it must submit to the following conditions (unchanging primal package):

Temperature: -40°C to 35°C

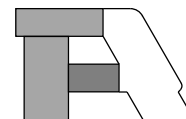
Humidity: Average per year ≤ 70%RH; For 30 full days randomly distributed throughout the year ≤ 80%RH

Storage time: ≤ 24 months (from the date marked on the capacitor's body or the label glued to the package)

四、Green Products

RoHS Compliance

Faratronic products in the catalogue are RoHS Compliant.



五、客户订购指南

请尽量提供以下信息

1. 应用场合：如整流器
2. 额定电容量及允许偏差
3. 电压：主要包括额定电压、工作电压、谐波电压等
4. 电流：包括最大电流、工作电流、谐波电流等
5. 频率：包括额定频率，工作频率，谐波频率等
6. 工作场所：如广场、超市等
7. 工作环境：如温度范围、湿度、海拔等
8. 产品尺寸：如直径、高度、引线长度等
9. 端子类型：如引线式、插片式等
10. 安全要求：如阻燃、防爆等
12. 预期寿命：在给定的工作条件下的预期寿命
12. 安装方式：如底部螺栓、中部卡圈、安装耳等
13. 其它

六、产品编码说明 Part number system

■ 15 位产品代码如下：

The 15 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	6	2												

第 1~3 位 型号代码

第 4~5 位 额定电压(参见 table 1)

第 6~8 位 标称容量

$$105=10 \times 10^5 \text{pF}=1.0\mu\text{F}$$

第 9 位 容量偏差

$$H = \pm 3\%, J = \pm 5\%, K = \pm 10\%$$

第 10~15 位 内部特征码

五、Guide for customer ordering

Please provide following information as possible as you can

- 1.Application or circuit diagram: for example, ballast.
- 2.Rated capacitance and tolerance
- 3.Voltage: mainly including rated voltage, working voltage , harmonic voltage etc
- 4.Current: including maximum current, working current, harmonic current etc
- 5.Frequency: including rated frequency , working frequency, harmonic frequency etc
- 6.Working location: for example, square, supermarket etc
- 7.Working environment: for example, temperature range, humidity, altitude etc
- 8.Dimensions: for example, diameter, height , length of terminals etc
9. Terminal form: for example, wires, tab, etc
10. Safety: for example, flame resistance, anti-explosion etc
11. Expected lifetime: under given working conditions
- 12.Fixed style: for example, bottom-stud, middle-clip, mounting ears etc
- 13 Others

Digit 1 to 3 Series code

Digit 4 to 5 Rated voltage(refer to table 1)

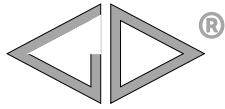
Digit 6 to 8 Rated capacitance value

$$105=10 \times 10^5 \text{pF}=1.0\mu\text{F}$$

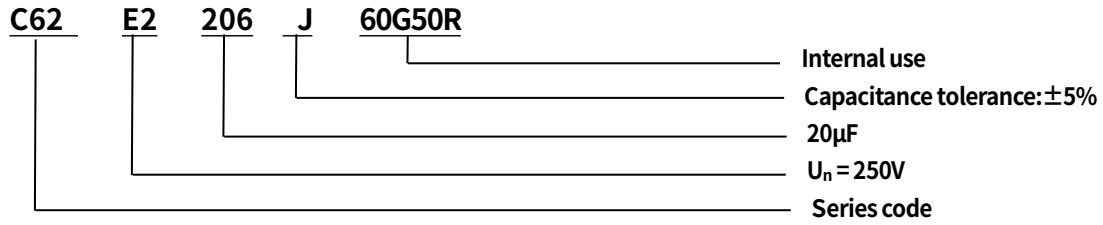
Digit 9 Capacitance tolerance

$$H = \pm 3\%, J = \pm 5\%, K = \pm 10\%$$

Digit 10 to 15 Internal use



■ 例如 for example



■ Table 1 额定电压代码 Rated voltage code

	A	B	C	D	E	F	G	H	J	K	L	M	N
1			16	20	25			50	63	80	132		
2	100	125	160	200	250	315	400	500	630	800	120		
3													
4											180		
5											150		
	P	Q	R	S	T	U	V	W	X	Y			
1	240	300	330	440	540	600	700	850	900				
2	275	305	350	450	520	690	760	875					
3	280	310	320	480	550	660	750						
4	220		345	430	560	620							
5	230			460		650							
6			375		525		780						
7				410	580								
8						680							

说明：1. 字母加数字表示交流，数字加字母表示直流，例如 A2 表示 100Vac, 2A 表示 100Vdc。

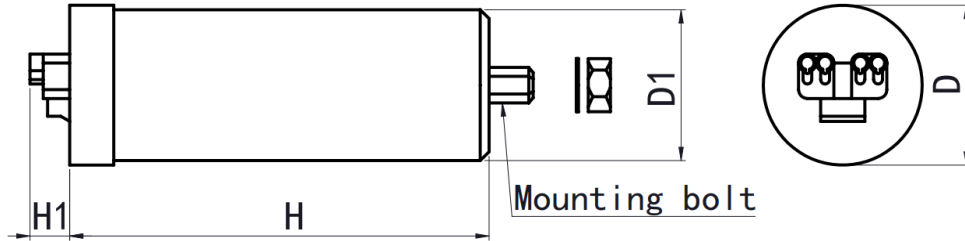
Letter and then number indicate AC, but number and then Letter indicate DC, for example ,2A indicate 100Vdc, A2 indicate 100Vac.

2. 表 1 中仅列出了 1 000V 以下的电压。Only show the voltage below 1 000 V in Table 1.



金属化聚丙烯膜灯具电容器 Metallized polypropylene film capacitor for lamps

外形图 Outline Drawing



特点

广泛用于荧光灯、高压汞灯、钠灯、金属卤素灯等以频率为 50Hz/60Hz 的交流电源供电的照明灯具中的变压器、电子镇流器的功率因数补偿，使灯具的功率因数 $\cos\phi \geq 0.9$ 。

Features

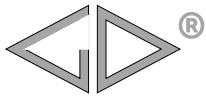
The capacitors are designed for lighting applications such as fluorescent lamps, high-pressure mercury vapor lamps, sodium lamps, and metal halide lamps. The capacitors are used for power factor compensation of transformers and magnetic ballasts in lamps with a frequency of 50 or 60Hz, which makes the power factor to achieve $\cos\phi \geq 0.9$.

安全认证 Safety Approvals

●		CQC (中国)	GB/T 18489-2008, type A, 2.0 μ F~50.0 μ F, 250Vac, 50Hz/60Hz, -40°C/85°C 证书号(Certificate No.): CQC0400009201
●		TUV Rheinland (德国)	EN 61048:2016, type A, 2.0 μ F~50.0 μ F, 250Vac, 50Hz/60Hz, -40°C/85°C 证书号(Certificate No.): R 50160499

技术要求 Specifications

引用标准 Reference Standard	GB/T 18489-2008(IEC 61048:2006) GB/T 18504-2001 (IEC 61049:1991)
额定电压 Rated Voltage (U_n)	250Vac
额定频率 Rated Frequency (f_n)	50Hz/60Hz
电容量范围 Capacitance Range (C_n)	2.0 μ F ~ 50.0 μ F
电容量偏差 Capacitance Tolerance	$\pm 5\%$ (J), $\pm 10\%$ (K)
额定最高温度(电容器表面温度, t_c) Rated Max. Temperature (on capacitor surface, t_c)	85°C
气候类别 Climatic Category	40/85/10
电容器类别 Type	Type A (self-healing parallel capacitor)
外壳类型 Case	Plastic or Aluminum
凝露 Condensation	Not permitted
耐电压(引线之间) Test Voltage Between Terminals	500Vac, 2s
耐电压(极壳之间) Test Voltage Between Terminals to Case	2 000Vac, 2s (max. leakage current: 0.5mA)
最高工作电压 Max. Operating Voltage	275Vac
额定电流 Rated Current (I_n)	0.0785 C_n (A) @ 50Hz 0.0942 C_n (A) @ 60Hz (Unit of C_n : μ F)
最大工作电流 Max. Operating Current	1.3 I_n
外壳防护等级 Degree of protection	IP00
最高使用海拔 Max Altitude	2 000m



C62

CBB60L series

电极端子 Terminals		Push in connector or insulated wires
连接线 Connecting Wires		Insulated rigid leads 0.5mm ² ~1.0mm ² , approx. stripped 6mm~7mm
安装 Installation	引出端形式 Terminal form	插入式端子 Insert terminal
		绝缘线剥线式 Insulate lead wire
	安装形式 Fixed style	底部螺栓 M8 Bottom-bolt M8
中部卡圈 Ring-clip in the middle of case		
最大安装扭矩 Max tightening torque		3N·m

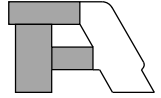
■ 产品编码说明 Part number system

15 位产品代码如下:

The 15 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	6	2												

第 1~3 位	型号代码	Digit 1 to 3	Series code
	C62=CBB60L		C62=CBB60L
第 4~5 位	交流额定电压	Digit 4 to 5	AC rated voltage
	E2=250V		E2=250V
第 6~8 位	标称容量	Digit 6 to 8	Rated capacitance value
	举例: 505=50×10 ⁵ pF=5.0μF		for example: 505=50×10 ⁵ pF=5.0μF
第 9 位	容量偏差	Digit 9	Capacitance tolerance
	J=±5%, K=±10%		J=±5%, K=±10%
第 10~15 位	内部特征码	Digit 10 to 15	Internal use



■ 外形尺寸 Dimensions(mm)

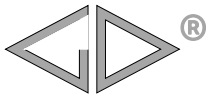
250Vac							
C _n (μF)	D ±2.0	D1 ±2.0	H ±3.0	H1 ±1.0	Mounting bolt	Discharge resistor	Part number
2.0	25	25	58	12	M8 x 10	0.5W, 1.2MΩ	C62E2205-*****
2.5	25	25	58	12	M8 x 10	0.5W, 1.2MΩ	C62E2255-*****
3.0	25	25	58	12	M8 x 10	0.5W, 1.2MΩ	C62E2305-*****
3.5	25	25	58	12	M8 x 10	0.5W, 1.2MΩ	C62E2355-*****
4.0	25	25	58	12	M8 x 10	0.5W, 1.2MΩ	C62E2405-*****
4.5	25	25	58	12	M8 x 10	0.5W, 1.2MΩ	C62E2455-*****
5.0	25	25	58	12	M8 x 10	0.5W, 1.2MΩ	C62E2505-*****
5.5	30	29	58	12	M8 x 10	0.5W, 1.2MΩ	C62E2555-*****
6.0	30	29	58	12	M8 x 10	0.5W, 1.2MΩ	C62E2605-*****
6.3	30	29	58	12	M8 x 10	0.5W, 1.2MΩ	C62E2635-*****
6.5	30	29	58	12	M8 x 10	0.5W, 1.2MΩ	C62E2655-*****
7.0	30	29	58	12	M8 x 10	0.5W, 1.2MΩ	C62E2705-*****
7.5	30	29	58	12	M8 x 10	0.5W, 1.2MΩ	C62E2755-*****
8.0	30	29	68	12	M8 x 10	0.5W, 1.2MΩ	C62E2805-*****
8.4	30	29	68	12	M8 x 10	0.5W, 1.2MΩ	C62E2845-*****
8.5	30	29	68	12	M8 x 10	0.5W, 1.2MΩ	C62E2855-*****
9.0	30	29	68	12	M8 x 10	0.5W, 1.2MΩ	C62E2905-*****
9.5	30	29	68	12	M8 x 10	0.5W, 1.2MΩ	C62E2955-*****
10	30	29	68	12	M8 x 10	0.5W, 1.2MΩ	C62E2106-*****
12	30	29	73	12	M8 x 10	0.5W, 1.2MΩ	C62E2126-*****
12.5	30	29	98	12	M8 x 10	0.5W, 1.2MΩ	C62E212E-*****
13	30	29	98	12	M8 x 10	0.5W, 1.2MΩ	C62E2136-*****
14	30	29	98	12	M8 x 10	0.5W, 1.2MΩ	C62E2146-*****
15	30	29	98	12	M8 x 10	0.5W, 1.2MΩ	C62E2156-*****
16	30	29	98	12	M8 x 10	0.5W, 1.2MΩ	C62E2166-*****
18	30	29	98	12	M8 x 10	0.5W, 1.2MΩ	C62E2186-*****
20	35	34	95	12	M8 x 10	0.5W, 1.2MΩ	C62E2206-*****
22	35	34	95	12	M8 x 10	0.5W, 1.2MΩ	C62E2226-*****
25	35	34	95	12	M8 x 10	0.5W, 0.75MΩ	C62E2256-*****
28	40	38	95	12	M8 x 10	0.5W, 0.75MΩ	C62E2286-*****
30	40	38	95	12	M8 x 10	0.5W, 0.75MΩ	C62E2306-*****
32	40	38	95	12	M8 x 10	0.5W, 0.75MΩ	C62E2326-*****
35	40	38	95	12	M8 x 10	0.5W, 0.75MΩ	C62E2356-*****
36	45	44	66	12	M8 x 10	0.5W, 0.75MΩ	C62E2366-*****
40	45	44	95	12	M8 x 10	0.5W, 0.75MΩ	C62E2406-*****
45	45	45	100	16	M8 x 12	0.5W, 0.75MΩ	C62E2456-*****
50	45	45	125	16	M8 x 12	0.5W, 0.75MΩ	162E2506-*****

250Vac (Miniature Version)							
C _n (μF)	D ±2.0	D1 ±2.0	H ±3.0	H1 ±1.0	Mounting bolt	Discharge resistor	Part number
2.0	25	25	53	12	M8 x 10	0.5W, 1.2MΩ	C62E2205-*****
2.5	25	25	53	12	M8 x 10	0.5W, 1.2MΩ	C62E2255-*****
3.0	25	25	53	12	M8 x 10	0.5W, 1.2MΩ	C62E2305-*****
3.5	25	25	53	12	M8 x 10	0.5W, 1.2MΩ	C62E2355-*****
4.0	25	25	53	12	M8 x 10	0.5W, 1.2MΩ	C62E2405-*****
4.5	25	25	53	12	M8 x 10	0.5W, 1.2MΩ	C62E2455-*****
5.0	25	25	53	12	M8 x 10	0.5W, 1.2MΩ	C62E2505-*****
5.5	25	25	53	12	M8 x 10	0.5W, 1.2MΩ	C62E2555-*****
6.0	25	25	58	12	M8 x 10	0.5W, 1.2MΩ	C62E2605-*****
6.3	25	25	58	12	M8 x 10	0.5W, 1.2MΩ	C62E2635-*****
6.5	25	25	58	12	M8 x 10	0.5W, 1.2MΩ	C62E2655-*****
7.0	25	25	58	12	M8 x 10	0.5W, 1.2MΩ	C62E2705-*****
7.5	30	27	58	12	M8 x 10	0.5W, 1.2MΩ	C62E2755-*****
8.0	30	27	58	12	M8 x 10	0.5W, 1.2MΩ	C62E2805-*****
8.4	30	27	58	12	M8 x 10	0.5W, 1.2MΩ	C62E2845-*****
8.5	30	27	58	12	M8 x 10	0.5W, 1.2MΩ	C62E2855-*****
9.0	30	29	58	12	M8 x 10	0.5W, 1.2MΩ	C62E2905-*****
9.5	30	29	58	12	M8 x 10	0.5W, 1.2MΩ	C62E2955-*****
10	30	29	58	12	M8 x 10	0.5W, 1.2MΩ	C62E2106-*****
12	30	29	68	12	M8 x 10	0.5W, 1.2MΩ	C62E2126-*****
12.5	30	29	68	12	M8 x 10	0.5W, 1.2MΩ	C62E212E-*****
13	30	29	68	12	M8 x 10	0.5W, 1.2MΩ	C62E2136-*****
14	30	29	68	12	M8 x 10	0.5W, 1.2MΩ	C62E2146-*****
15	30	29	73	12	M8 x 10	0.5W, 1.2MΩ	C62E2156-*****
16	30	29	73	12	M8 x 10	0.5W, 1.2MΩ	C62E2166-*****
18	35	33	73	12	M8 x 10	0.5W, 1.2MΩ	C62E2186-*****
20	35	33	73	12	M8 x 10	0.5W, 1.2MΩ	C62E2206-*****
22	30	29	98	12	M8 x 10	0.5W, 1.2MΩ	C62E2226-*****
25	30	29	98	12	M8 x 10	0.5W, 0.75MΩ	C62E2256-*****
28	35	33	95	12	M8 x 10	0.5W, 0.75MΩ	C62E2286-*****
30	35	33	95	12	M8 x 10	0.5W, 0.75MΩ	C62E2306-*****
32	35	33	95	12	M8 x 10	0.5W, 0.75MΩ	C62E2326-*****
35	35	34	95	12	M8 x 10	0.5W, 0.75MΩ	C62E2356-*****
36	45	44	66	12	M8 x 10	0.5W, 0.75MΩ	C62E2366-*****
40	40	39	95	12	M8 x 10	0.5W, 0.47MΩ	C62E2406-*****
45	40	39	95	16	M8 x 12	0.5W, 0.47MΩ	C62E2456-*****
50	45	45	95	16	M8 x 12	0.5W, 0.47MΩ	C62E2506-*****

备注 Note: 1. “-”表示容量偏差。 “-” =capacitance tolerance code, J=±5%, K=±10%.

2. “*****”表示内部特征码。 “*****” = Internal use.

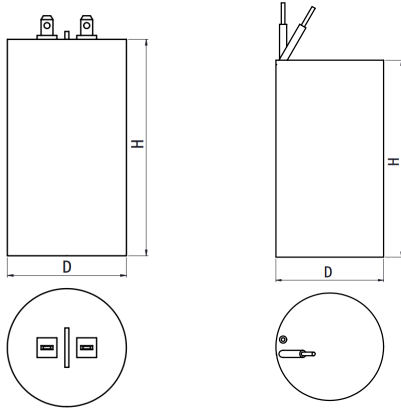
3. 其它容量、尺寸系列可按用户需要商定。 Other values and dimensions are available on request.



C63
CBB60H series

金属化聚丙烯膜灯具电容器 (温度 105°C) Metallized polypropylene film capacitor for lamps(temperature 105°C)

■ 外形图 Outline Drawing



■ 特点

广泛用于荧光灯、高压汞灯、钠灯、金属卤素灯等以频率为 50Hz/60Hz 的交流电源供电的照明灯具中的变压器、电子镇流器的功率因数补偿, 使灯具的功率因数 $\cos\phi \geq 0.9$, 并且允许电容器表面温度达到 105°C。

■ Features

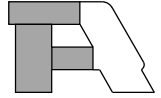
The capacitors are designed for lighting applications such as fluorescent lamps, high-pressure mercury vapor lamps, sodium lamps, and metal halide lamps. The capacitors are used for power factor compensation of transformers and magnetic ballasts in lamps with a frequency of 50 or 60Hz, which makes the power factor to achieve $\cos\phi \geq 0.9$. The temperature on capacitor surface is admitted to reach 105°C.

■ 安全认证 Safety Approvals

●		CQC (中国)	GB/T 18489-2008, type A, 2.0μF~75.0μF, 250Vac, 50Hz/60Hz, -40°C/105°C 证书号(Certificate No.): CQC10004041879
●		UL (美国/加拿大)	UL810, CSA C22.2 No.190 (construction only), max. 400Vac, 50Hz/60Hz, 5μF~75μF, max.105°C 证书号(File No.): E256238, CCN:CZDS2/8

■ 技术要求 Specifications

引用标准 Reference Standard	GB/T 18489-2008(IEC 61048:2006) GB/T 18504-2001 (IEC 61049:1991)
额定电压 Rated Voltage (U_n)	200Vac, 240Vac, 280Vac, 300Vac, 400Vac
额定频率 Rated Frequency (f_n)	50Hz/60Hz
电容量范围 Capacitance Range (C_n)	5.0μF ~ 75.0μF
电容量偏差 Capacitance Tolerance	±3%(H), ±5%(J), ±10%(K)
额定最高温度 (电容器表面温度, t_c) Rated Max. Temperature (on capacitor surface, t_c)	105°C
气候类别 Climatic Category	40/105/10
外壳类型 Case	Plastic
凝露 Condensation	Not permitted
耐电压 (引线之间) Test Voltage Between Terminals	2 U_n , 2s
耐电压 (极壳之间) Test Voltage Between Terminals to Case	3 000Vac, 60s (max. leakage current: 0.5mA)
最高工作电压 Max. Operating Voltage	1.1 U_n
额定电流 Rated Current (I_n)	2π $f_n C_n U_n \times 10^{-6}$ (A)(Unit of C_n : μF)
最大工作电流 Max. Operating Current	1.3 I_n



外壳防护等级 Degree of protection		IP00
电极端子 Terminals		Push in connector or insulated wires
最高使用海拔 Max Altitude		2 000m
安装 Installation	引出端形式 Terminal form	插片式AMP250#每边1个 Tabs type one AMP250# per side
		绝缘线剥线式 Insulate lead wire
	安装形式 Fixed style	中部卡圈 Ring-clip in the middle of case

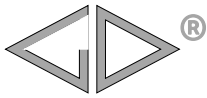
■ 产品编码说明 Part number system

15 位产品代码如下:

The 15 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	6	3												

第 1~3 位	型号代码	Digit 1 to 3	Series code
	C63=CBB60H		C63=CBB60H
第 4~5 位	交流额定电压	Digit 4 to 5	AC rated voltage
	D2=200V P1=240V P3=280V		D2=200V P1=240V P3=280V
	Q1=300V R1=330V G2=400V		Q1=300V R1=330V G2=400V
第 6~8 位	标称容量	Digit 6 to 8	Rated capacitance value
	举例: 505=50×10 ⁵ pF=5.0μF		for example: 505=50×10 ⁵ pF=5.0μF
第 9 位	容量偏差	Digit 9	Capacitance tolerance
	H=±3%, J=±5%, K=±10%		H=±3%, J=±5%, K=±10%
第 10~15 位	内部特征码	Digit 10 to 15	Internal use



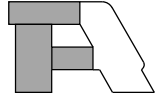
■ 外形尺寸 Dimensions(mm)

200Vac					240Vac					280Vac				
C _n (μF)	D ±2.0	H ±3.0	Discharge resistor	Part number	C _n (μF)	D ±2.0	H ±3.0	Discharge resistor	Part number	C _n (μF)	D ±2.0	H ±3.0	Discharge resistor	Part number
5.0	30	55	0.5W, 0.82MΩ	C63D2505-*****	5.0	30	55	0.5W, 0.82MΩ	C63P1505-*****	5.0	30	55	0.5W, 0.82MΩ	C63P3505-*****
6.0	30	55	0.5W, 0.82MΩ	C63D2605-*****	6.0	30	55	0.5W, 0.82MΩ	C63P1605-*****	6.0	30	75	0.5W, 0.82MΩ	C63P3605-*****
7.0	30	55	0.5W, 0.82MΩ	C63D2705-*****	7.0	30	75	0.5W, 0.82MΩ	C63P1705-*****	7.0	30	75	0.5W, 0.82MΩ	C63P3705-*****
8.0	30	55	0.5W, 0.82MΩ	C63D2805-*****	8.0	30	75	0.5W, 0.82MΩ	C63P1805-*****	8.0	30	75	0.5W, 0.82MΩ	C63P3805-*****
8.4	30	55	0.5W, 0.82MΩ	C63D2845-*****	8.4	30	75	0.5W, 0.82MΩ	C63P1845-*****	8.4	30	75	0.5W, 0.82MΩ	C63P3845-*****
10.0	30	75	0.5W, 0.82MΩ	C63D2106-*****	10.0	30	75	0.5W, 0.82MΩ	C63P1106-*****	10.0	35	75	0.5W, 0.82MΩ	C63P3106-*****
11.0	30	75	0.5W, 0.82MΩ	C63D2116-*****	11.0	35	75	0.5W, 0.82MΩ	C63P1116-*****	11.0	35	75	0.5W, 0.82MΩ	C63P3116-*****
12.0	30	75	0.5W, 0.82MΩ	C63D2126-*****	12.0	35	75	0.5W, 0.82MΩ	C63P1126-*****	12.0	35	75	0.5W, 0.82MΩ	C63P3126-*****
13.0	30	75	0.5W, 0.82MΩ	C63D2136-*****	13.0	35	75	0.5W, 0.82MΩ	C63P1136-*****	13.0	35	75	0.5W, 0.82MΩ	C63P3136-*****
14.0	30	75	0.5W, 0.82MΩ	C63D2146-*****	14.0	35	75	0.5W, 0.82MΩ	C63P1146-*****	14.0	40	75	0.5W, 0.82MΩ	C63P3146-*****
15.0	35	75	0.5W, 0.82MΩ	C63D2156-*****	15.0	40	75	0.5W, 0.82MΩ	C63P1156-*****	15.0	40	75	0.5W, 0.82MΩ	C63P3156-*****
16.0	35	75	0.5W, 0.82MΩ	C63D2166-*****	16.0	40	75	0.5W, 0.82MΩ	C63P1166-*****	16.0	40	75	0.5W, 0.82MΩ	C63P3166-*****
17.0	35	75	0.5W, 0.82MΩ	C63D2176-*****	17.0	40	75	0.5W, 0.82MΩ	C63P1176-*****	17.0	40	75	0.5W, 0.82MΩ	C63P3176-*****
17.5	35	75	0.5W, 0.82MΩ	C63D217E-*****	17.5	40	75	0.5W, 0.82MΩ	C63P117E-*****	17.5	35	95	0.5W, 0.82MΩ	C63P317E-*****
18.0	35	75	0.5W, 0.82MΩ	C63D2186-*****	18.0	40	75	0.5W, 0.82MΩ	C63P1186-*****	18.0	35	95	0.5W, 0.82MΩ	C63P3186-*****
18.5	35	75	0.5W, 0.82MΩ	C63D218E-*****	18.5	40	75	0.5W, 0.82MΩ	C63P118E-*****	18.5	35	95	0.5W, 0.82MΩ	C63P318E-*****
20.0	35	75	0.5W, 0.82MΩ	C63D2206-*****	20.0	40	75	0.5W, 0.82MΩ	C63P1206-*****	20.0	35	95	0.5W, 0.82MΩ	C63P3206-*****
20.5	35	75	0.5W, 0.82MΩ	C63D220E-*****	20.5	35	95	0.5W, 0.82MΩ	C63P120E-*****	20.5	40	95	0.5W, 0.82MΩ	C63P320E-*****
21.0	35	75	0.5W, 0.82MΩ	C63D2216-*****	21.0	35	95	0.5W, 0.82MΩ	C63P1216-*****	21.0	40	95	0.5W, 0.82MΩ	C63P3216-*****
22.0	35	75	0.5W, 0.82MΩ	C63D2226-*****	22.0	35	95	0.5W, 0.82MΩ	C63P1226-*****	22.0	40	95	0.5W, 0.82MΩ	C63P3226-*****
22.5	40	75	0.5W, 0.82MΩ	C63D222E-*****	22.5	35	95	0.5W, 0.82MΩ	C63P122E-*****	22.5	40	95	0.5W, 0.82MΩ	C63P322E-*****
24.0	40	75	0.5W, 0.82MΩ	C63D2246-*****	24.0	40	95	0.5W, 0.82MΩ	C63P1246-*****	24.0	40	95	0.5W, 0.82MΩ	C63P3246-*****
24.5	40	75	0.5W, 0.82MΩ	C63D224E-*****	24.5	40	95	0.5W, 0.82MΩ	C63P124E-*****	24.5	40	95	0.5W, 0.82MΩ	C63P324E-*****
25.0	40	75	0.5W, 0.82MΩ	C63D2256-*****	25.0	40	95	0.5W, 0.82MΩ	C63P1256-*****	25.0	40	95	0.5W, 0.82MΩ	C63P3256-*****
25.5	40	75	0.5W, 0.82MΩ	C63D225E-*****	25.5	40	95	0.5W, 0.82MΩ	C63P125E-*****	25.5	40	95	0.5W, 0.82MΩ	C63P325E-*****
26.0	40	75	0.5W, 0.82MΩ	C63D2266-*****	26.0	40	95	0.5W, 0.82MΩ	C63P1266-*****	26.0	40	95	0.5W, 0.82MΩ	C63P3266-*****
26.5	40	75	0.5W, 0.82MΩ	C63D226E-*****	26.5	40	95	0.5W, 0.82MΩ	C63P126E-*****	26.5	40	95	0.5W, 0.82MΩ	C63P326E-*****
28.0	40	75	0.5W, 0.82MΩ	C63D2286-*****	28.0	40	95	0.5W, 0.82MΩ	C63P1286-*****	28.0	40	95	0.5W, 0.82MΩ	C63P3286-*****
30.0	35	95	0.5W, 0.47MΩ	C63D2306-*****	30.0	40	95	0.5W, 0.47MΩ	C63P1306-*****	30.0	45	95	0.5W, 0.47MΩ	C63P3306-*****
32.0	35	95	0.5W, 0.47MΩ	C63D2326-*****	32.0	40	95	0.5W, 0.47MΩ	C63P1326-*****	32.0	45	95	0.5W, 0.47MΩ	C63P3326-*****
34.0	35	95	0.5W, 0.47MΩ	C63D2346-*****	34.0	45	95	0.5W, 0.47MΩ	C63P1346-*****	34.0	45	95	0.5W, 0.47MΩ	C63P3346-*****
35.0	40	95	0.5W, 0.47MΩ	C63D2356-*****	35.0	45	95	0.5W, 0.47MΩ	C63P1356-*****	35.0	45	95	0.5W, 0.47MΩ	C63P3356-*****
36.0	40	95	0.5W, 0.47MΩ	C63D2366-*****	36.0	45	95	0.5W, 0.47MΩ	C63P1366-*****	36.0	45	95	0.5W, 0.47MΩ	C63P3366-*****
40.0	40	95	0.5W, 0.47MΩ	C63D2406-*****	40.0	45	95	0.5W, 0.47MΩ	C63P1406-*****	40.0	45	120	0.5W, 0.47MΩ	C63P3406-*****
45.0	40	95	0.5W, 0.47MΩ	C63D2456-*****	45.0	45	95	0.5W, 0.47MΩ	C63P1456-*****	45.0	45	120	0.5W, 0.47MΩ	C63P3456-*****
48.0	40	95	0.5W, 0.47MΩ	C63D2486-*****	48.0	45	120	0.5W, 0.47MΩ	C63P1486-*****	48.0	45	120	0.5W, 0.47MΩ	C63P3486-*****
50.0	45	95	0.5W, 0.47MΩ	C63D2506-*****	50.0	45	120	0.5W, 0.47MΩ	C63P1506-*****	50.0	45	120	0.5W, 0.47MΩ	C63P3506-*****
52.0	45	95	0.5W, 0.33MΩ	C63D2526-*****	52.0	45	120	0.5W, 0.33MΩ	C63P1526-*****	52.0	50	120	0.5W, 0.33MΩ	C63P3526-*****
55.0	45	95	0.5W, 0.33MΩ	C63D2556-*****	55.0	45	120	0.5W, 0.33MΩ	C63P1556-*****	55.0	50	120	0.5W, 0.33MΩ	C63P3556-*****
56.0	45	95	0.5W, 0.33MΩ	C63D2566-*****	56.0	45	120	0.5W, 0.33MΩ	C63P1566-*****	56.0	50	120	0.5W, 0.33MΩ	C63P3566-*****
60.0	45	95	0.5W, 0.33MΩ	C63D2606-*****	60.0	45	120	0.5W, 0.33MΩ	C63P1606-*****	60.0	50	120	0.5W, 0.33MΩ	C63P3606-*****
62.0	45	95	0.5W, 0.33MΩ	C63D2626-*****	62.0	50	120	0.5W, 0.33MΩ	C63P1626-*****	62.0	50	120	0.5W, 0.33MΩ	C63P3626-*****
64.0	45	95	0.5W, 0.33MΩ	C63D2646-*****	64.0	50	120	0.5W, 0.33MΩ	C63P1646-*****	64.0	50	120	0.5W, 0.33MΩ	C63P3646-*****
65.0	45	95	0.5W, 0.33MΩ	C63D2656-*****	65.0	50	120	0.5W, 0.33MΩ	C63P1656-*****	65.0	50	120	0.5W, 0.33MΩ	C63P3656-*****
70.0	45	120	0.5W, 0.33MΩ	C63D2706-*****	70.0	50	120	0.5W, 0.33MΩ	C63P1706-*****	70.0	50	130	0.5W, 0.33MΩ	C63P3706-*****
75.0	45	120	0.5W, 0.33MΩ	C63D2756-*****	75.0	50	120	0.5W, 0.33MΩ	C63P1756-*****	72.0	50	130	0.5W, 0.33MΩ	C63P3726-*****

备注 Note: 1. “-”表示容量偏差。 “-”=capacitance tolerance code, H=±3%, J=±5%, K=±10%。

2. “*****”表示内部特征码。 “*****” = Internal use.

3. 其它容量、尺寸系列可按用户需求商定。 Other values and dimensions are available on request.



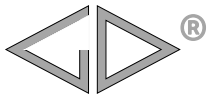
■ 外形尺寸 Dimensions(mm)

300Vac					330Vac					400Vac				
C _n (μF)	D ±2.0	H ±3.0	Discharge resistor	Part number	C _n (μF)	D ±2.0	H ±3.0	Discharge resistor	Part number	C _n (μF)	D ±2.0	H ±3.0	Discharge resistor	Part number
5.0	30	55	0.5W, 0.82MΩ	C63Q1505-*****	5.0	30	75	0.5W, 0.82MΩ	C63R1505-*****	5.0	35	75	0.5W, 0.82MΩ	C63G2505-*****
6.0	30	75	0.5W, 0.82MΩ	C63Q1605-*****	6.0	30	75	0.5W, 0.82MΩ	C63R1605-*****	6.0	35	75	0.5W, 0.82MΩ	C63G2605-*****
7.0	30	75	0.5W, 0.82MΩ	C63Q1705-*****	7.0	35	75	0.5W, 0.82MΩ	C63R1705-*****	7.0	35	95	0.5W, 0.82MΩ	C63G2705-*****
8.0	35	75	0.5W, 0.82MΩ	C63Q1805-*****	8.0	35	75	0.5W, 0.82MΩ	C63R1805-*****	8.0	35	95	0.5W, 0.82MΩ	C63G2805-*****
8.4	35	75	0.5W, 0.82MΩ	C63Q1845-*****	8.4	35	75	0.5W, 0.82MΩ	C63R1845-*****	8.4	35	95	0.5W, 0.82MΩ	C63G2845-*****
10.0	35	75	0.5W, 0.82MΩ	C63Q1106-*****	10.0	40	75	0.5W, 0.82MΩ	C63R1106-*****	10.0	35	95	0.5W, 0.82MΩ	C63G2106-*****
11.0	35	75	0.5W, 0.82MΩ	C63Q1116-*****	11.0	40	75	0.5W, 0.82MΩ	C63R1116-*****	11.0	40	95	0.5W, 0.82MΩ	C63G2116-*****
12.0	35	75	0.5W, 0.82MΩ	C63Q1126-*****	12.0	35	95	0.5W, 0.82MΩ	C63R1126-*****	12.0	40	95	0.5W, 0.82MΩ	C63G2126-*****
13.0	40	75	0.5W, 0.82MΩ	C63Q1136-*****	13.0	35	95	0.5W, 0.82MΩ	C63R1136-*****	13.0	40	95	0.5W, 0.82MΩ	C63G2136-*****
14.0	40	75	0.5W, 0.82MΩ	C63Q1146-*****	14.0	35	95	0.5W, 0.82MΩ	C63R1146-*****	14.0	40	95	0.5W, 0.82MΩ	C63G2146-*****
15.0	40	75	0.5W, 0.82MΩ	C63Q1156-*****	15.0	40	95	0.5W, 0.82MΩ	C63R1156-*****	15.0	45	95	0.5W, 0.82MΩ	C63G2156-*****
16.0	35	95	0.5W, 0.82MΩ	C63Q1166-*****	16.0	40	95	0.5W, 0.82MΩ	C63R1166-*****	16.0	45	95	0.5W, 0.82MΩ	C63G2166-*****
17.0	35	95	0.5W, 0.82MΩ	C63Q1176-*****	17.0	40	95	0.5W, 0.82MΩ	C63R1176-*****	17.0	45	95	0.5W, 0.82MΩ	C63G2176-*****
17.5	40	95	0.5W, 0.82MΩ	C63Q117E-*****	17.5	40	95	0.5W, 0.82MΩ	C63R117E-*****	17.5	45	95	0.5W, 0.82MΩ	C63G217E-*****
18.0	40	95	0.5W, 0.82MΩ	C63Q1186-*****	18.0	40	95	0.5W, 0.82MΩ	C63R1186-*****	18.0	45	95	0.5W, 0.82MΩ	C63G2186-*****
18.5	40	95	0.5W, 0.82MΩ	C63Q118E-*****	18.5	40	95	0.5W, 0.82MΩ	C63R118E-*****	18.5	45	95	0.5W, 0.82MΩ	C63G218E-*****
20.0	40	95	0.5W, 0.82MΩ	C63Q1206-*****	20.0	40	95	0.5W, 0.82MΩ	C63R1206-*****	20.0	45	120	0.5W, 0.82MΩ	C63G2206-*****
20.5	40	95	0.5W, 0.82MΩ	C63Q120E-*****	20.5	45	95	0.5W, 0.82MΩ	C63R120E-*****	20.5	45	120	0.5W, 0.82MΩ	C63G220E-*****
21.0	40	95	0.5W, 0.82MΩ	C63Q1216-*****	21.0	45	95	0.5W, 0.82MΩ	C63R1216-*****	21.0	45	120	0.5W, 0.82MΩ	C63G2216-*****
22.0	40	95	0.5W, 0.82MΩ	C63Q1226-*****	22.0	45	95	0.5W, 0.82MΩ	C63R1226-*****	22.0	45	120	0.5W, 0.82MΩ	C63G2226-*****
22.5	40	95	0.5W, 0.82MΩ	C63Q122E-*****	22.5	45	95	0.5W, 0.82MΩ	C63R122E-*****	22.5	45	120	0.5W, 0.82MΩ	C63G222E-*****
24.0	40	95	0.5W, 0.82MΩ	C63Q1246-*****	24.0	45	95	0.5W, 0.82MΩ	C63R1246-*****	24.0	45	120	0.5W, 0.82MΩ	C63G2246-*****
24.5	45	95	0.5W, 0.82MΩ	C63Q124E-*****	24.5	45	95	0.5W, 0.82MΩ	C63R124E-*****	24.5	45	120	0.5W, 0.82MΩ	C63G224E-*****
25.0	45	95	0.5W, 0.82MΩ	C63Q1256-*****	25.0	45	95	0.5W, 0.82MΩ	C63R1256-*****	25.0	45	120	0.5W, 0.82MΩ	C63G2256-*****
25.5	45	95	0.5W, 0.82MΩ	C63Q125E-*****	25.5	45	95	0.5W, 0.82MΩ	C63R125E-*****	25.5	45	120	0.5W, 0.82MΩ	C63G225E-*****
26.0	45	95	0.5W, 0.82MΩ	C63Q1266-*****	26.0	45	95	0.5W, 0.82MΩ	C63R1266-*****	26.0	45	120	0.5W, 0.82MΩ	C63G2266-*****
26.5	45	95	0.5W, 0.82MΩ	C63Q126E-*****	26.5	45	95	0.5W, 0.82MΩ	C63R126E-*****	26.5	45	120	0.5W, 0.82MΩ	C63G226E-*****
28.0	45	95	0.5W, 0.82MΩ	C63Q1286-*****	28.0	45	120	0.5W, 0.82MΩ	C63R1286-*****	28.0	50	120	0.5W, 0.82MΩ	C63G2286-*****
30.0	45	95	0.5W, 0.47MΩ	C63Q1306-*****	30.0	45	120	0.5W, 0.47MΩ	C63R1306-*****	30.0	50	120	0.5W, 0.47MΩ	C63G2306-*****
32.0	45	120	0.5W, 0.47MΩ	C63Q1326-*****	32.0	45	120	0.5W, 0.47MΩ	C63R1326-*****	32.0	50	120	0.5W, 0.47MΩ	C63G2326-*****
34.0	45	120	0.5W, 0.47MΩ	C63Q1346-*****	34.0	45	120	0.5W, 0.47MΩ	C63R1346-*****					
35.0	45	120	0.5W, 0.47MΩ	C63Q1356-*****	35.0	45	120	0.5W, 0.47MΩ	C63R1356-*****					
36.0	45	120	0.5W, 0.47MΩ	C63Q1366-*****	36.0	45	120	0.5W, 0.47MΩ	C63R1366-*****					
40.0	45	120	0.5W, 0.47MΩ	C63Q1406-*****	40.0	50	120	0.5W, 0.47MΩ	C63R1406-*****					
45.0	50	120	0.5W, 0.47MΩ	C63Q1456-*****	45.0	50	120	0.5W, 0.47MΩ	C63R1456-*****					
48.0	50	120	0.5W, 0.47MΩ	C63Q1486-*****	48.0	50	120	0.5W, 0.47MΩ	C63R1486-*****					
50.0	50	120	0.5W, 0.47MΩ	C63Q1506-*****	50.0	50	130	0.5W, 0.47MΩ	C63R1506-*****					
52.0	50	120	0.5W, 0.33MΩ	C63Q1526-*****										
55.0	50	120	0.5W, 0.33MΩ	C63Q1556-*****										

备注 Note: 1. “-” 表示容量偏差。 “-” =capacitance tolerance code, H=±3%, J=±5%, K=±10%.

2. “*****” 表示内部特征码。 “*****” = Internal use.

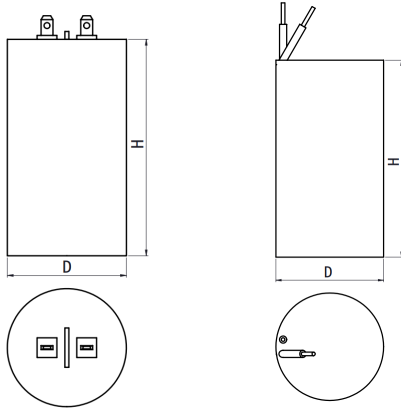
3. 其它容量、尺寸系列可按用户需要商定。 Other values and dimensions are available on request.



C64
CBB60M series

金属化聚丙烯膜灯具电容器 (温度 100°C) Metallized polypropylene film capacitor for lamps (temperature 100°C)

■ 外形图 Outline Drawing



■ 特点

广泛用于荧光灯、高压汞灯、钠灯、金属卤素灯等以频率为 50Hz/60Hz 的交流电源供电的照明灯具中的变压器、电子镇流器的功率因数补偿, 使灯具的功率因数 $\cos\phi \geq 0.9$, 并且允许电容器表面温度达到 100°C。

■ Features

The capacitors are designed for lighting applications such as fluorescent lamps, high-pressure mercury vapor lamps, sodium lamps, and metal halide lamps. The capacitors are used for power factor compensation of transformers and magnetic ballasts in lamps with a frequency of 50 or 60Hz, which makes the power factor to achieve $\cos\phi \geq 0.9$. The temperature on capacitor surface is admitted to reach 100°C.

■ 安全认证 Safety Approvals

	UL (美国/加拿大)	UL810, CSA C22.2 No.190 (construction only), max. 400Vac, 50Hz/60Hz, 5μF ~ 75μF, max.100°C 证书号 (File No.): E256238, CCN:CZDS2/8
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■ 技术要求 Specifications

引用标准 Reference Standard	GB/T 18489-2008 (IEC 61048:2006) GB/T 18504-2001 (IEC 61049:1991)
额定电压 Rated Voltage (U_n)	240Vac, 280Vac, 330Vac, 350Vac, 400Vac
额定频率 Rated Frequency (f_n)	50Hz/60Hz
电容量范围 Capacitance Range (C_n)	5.0μF ~ 75.0μF
电容量偏差 Capacitance Tolerance	±3%(H), ±5%(J), ±10%(K)
额定最高温度 (电容器表面温度, t_c) Rated Max. Temperature (on capacitor surface, t_c)	100°C
气候类别 Climatic Category	40/100/10
外壳类型 Case	Plastic or Aluminum
凝露 Condensation	Not permitted
耐电压 (引线之间) Test Voltage Between Terminals	2 U_n , 2s
耐电压 (极壳之间) Test Voltage Between Terminals to Case	3 000Vac, 60s (max. leakage current: 0.5mA)
最高工作电压 Max. Operating Voltage	1.1 U_n
额定电流 Rated Current (I_n)	$2\pi f_n C_n U_n \times 10^{-6}$ (A) (Unit of C_n : μF)
最大工作电流 Max. Operating Current	1.3 I_n



外壳防护等级 Degree of protection		IP00
电极端子 Terminals		Push in connector or insulated wires
最高使用海拔 Max Altitude		2 000m
安装 Installation	引出端形式 Terminal form	插片式AMP250#每边1个 Tabs type one AMP250# per side
	安装形式 Fixed style	绝缘线剥线式 Insulate lead wire
		中部卡圈 Ring-clip in the middle of case

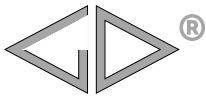
■ 产品编码说明 Part number system

15 位产品代码如下：

The 15 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	6	4												

第 1~3 位	型号代码	Digit 1 to 3	Series code
	C64=CBB60M		C64=CBB60M
第 4~5 位	交流额定电压	Digit 4 to 5	AC rated voltage
	P1=240V P3=280V R1=330V		P1=240V P3=280V R1=330V
	R2=350V G2=400V		R2=350V G2=400V
第 6~8 位	标称容量	Digit 6 to 8	Rated capacitance value
	举例： 505=50 × 10⁵pF=5.0μF		for example: 505=50 × 10⁵pF=5.0μF
第 9 位	容量偏差	Digit 9	Capacitance tolerance
	H=±3%, J=±5%, K=±10%		H=±3%, J=±5%, K=±10%
第 10~15 位	内部特征码	Digit 10 to 15	Internal use



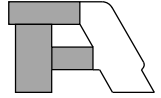
■ 外形尺寸 Dimensions(mm)

240Vac					280Vac					330Vac				
C _n (μF)	D ±2.0	H ±3.0	Discharge resistor	Part number	C _n (μF)	D ±2.0	H ±3.0	Discharge resistor	Part number	C _n (μF)	D ±2.0	H ±3.0	Discharge resistor	Part number
5.0	30	55	0.5W, 0.82MΩ	C64P1505-*****	5.0	30	55	0.5W, 0.82MΩ	C64P3505-*****	5.0	30	55	0.5W, 0.82MΩ	C64R1505-*****
6.0	30	55	0.5W, 0.82MΩ	C64P1605-*****	6.0	30	55	0.5W, 0.82MΩ	C64P3605-*****	6.0	30	75	0.5W, 0.82MΩ	C64R1605-*****
7.0	30	55	0.5W, 0.82MΩ	C64P1705-*****	7.0	30	75	0.5W, 0.82MΩ	C64P3705-*****	7.0	30	75	0.5W, 0.82MΩ	C64R1705-*****
8.0	30	55	0.5W, 0.82MΩ	C64P1805-*****	8.0	30	75	0.5W, 0.82MΩ	C64P3805-*****	8.0	30	75	0.5W, 0.82MΩ	C64R1805-*****
8.4	30	55	0.5W, 0.82MΩ	C64P1845-*****	8.4	30	75	0.5W, 0.82MΩ	C64P3845-*****	8.4	30	75	0.5W, 0.82MΩ	C64R1845-*****
10.0	30	75	0.5W, 0.82MΩ	C64P1106-*****	10.0	30	75	0.5W, 0.82MΩ	C64P3106-*****	10.0	35	75	0.5W, 0.82MΩ	C64R1106-*****
11.0	30	75	0.5W, 0.82MΩ	C64P1116-*****	11.0	35	75	0.5W, 0.82MΩ	C64P3116-*****	11.0	35	75	0.5W, 0.82MΩ	C64R1116-*****
12.0	30	75	0.5W, 0.82MΩ	C64P1126-*****	12.0	35	75	0.5W, 0.82MΩ	C64P3126-*****	12.0	35	75	0.5W, 0.82MΩ	C64R1126-*****
13.0	30	75	0.5W, 0.82MΩ	C64P1136-*****	13.0	35	75	0.5W, 0.82MΩ	C64P3136-*****	13.0	35	75	0.5W, 0.82MΩ	C64R1136-*****
14.0	30	75	0.5W, 0.82MΩ	C64P1146-*****	14.0	35	75	0.5W, 0.82MΩ	C64P3146-*****	14.0	40	75	0.5W, 0.82MΩ	C64R1146-*****
15.0	35	75	0.5W, 0.82MΩ	C64P1156-*****	15.0	40	75	0.5W, 0.82MΩ	C64P3156-*****	15.0	40	75	0.5W, 0.82MΩ	C64R1156-*****
16.0	35	75	0.5W, 0.82MΩ	C64P1166-*****	16.0	40	75	0.5W, 0.82MΩ	C64P3166-*****	16.0	40	75	0.5W, 0.82MΩ	C64R1166-*****
17.0	35	75	0.5W, 0.82MΩ	C64P1176-*****	17.0	40	75	0.5W, 0.82MΩ	C64P3176-*****	17.0	40	75	0.5W, 0.82MΩ	C64R1176-*****
17.5	35	75	0.5W, 0.82MΩ	C64P117E-*****	17.5	40	75	0.5W, 0.82MΩ	C64P317E-*****	17.5	35	95	0.5W, 0.82MΩ	C64R117E-*****
18.0	35	75	0.5W, 0.82MΩ	C64P1186-*****	18.0	40	75	0.5W, 0.82MΩ	C64P3186-*****	18.0	35	95	0.5W, 0.82MΩ	C64R1186-*****
18.5	35	75	0.5W, 0.82MΩ	C64P118E-*****	18.5	40	75	0.5W, 0.82MΩ	C64P318E-*****	18.5	35	95	0.5W, 0.82MΩ	C64R118E-*****
20.0	35	75	0.5W, 0.82MΩ	C64P1206-*****	20.0	35	95	0.5W, 0.82MΩ	C64P3206-*****	20.0	35	95	0.5W, 0.82MΩ	C64R1206-*****
20.5	35	75	0.5W, 0.82MΩ	C64P120E-*****	20.5	35	95	0.5W, 0.82MΩ	C64P320E-*****	20.5	40	95	0.5W, 0.82MΩ	C64R120E-*****
21.0	35	75	0.5W, 0.82MΩ	C64P1216-*****	21.0	35	95	0.5W, 0.82MΩ	C64P3216-*****	21.0	40	95	0.5W, 0.82MΩ	C64R1216-*****
22.0	35	75	0.5W, 0.82MΩ	C64P1226-*****	22.0	35	95	0.5W, 0.82MΩ	C64P3226-*****	22.0	40	95	0.5W, 0.82MΩ	C64R1226-*****
22.5	40	75	0.5W, 0.82MΩ	C64P122E-*****	22.5	35	95	0.5W, 0.82MΩ	C64P322E-*****	22.5	40	95	0.5W, 0.82MΩ	C64R122E-*****
24.0	40	75	0.5W, 0.82MΩ	C64P1246-*****	24.0	40	95	0.5W, 0.82MΩ	C64P3246-*****	24.0	40	95	0.5W, 0.82MΩ	C64R1246-*****
24.5	40	75	0.5W, 0.82MΩ	C64P124E-*****	24.5	40	95	0.5W, 0.82MΩ	C64P324E-*****	24.5	40	95	0.5W, 0.82MΩ	C64R124E-*****
25.0	40	75	0.5W, 0.82MΩ	C64P1256-*****	25.0	40	95	0.5W, 0.82MΩ	C64P3256-*****	25.0	40	95	0.5W, 0.82MΩ	C64R1256-*****
25.5	40	75	0.5W, 0.82MΩ	C64P125E-*****	25.5	40	95	0.5W, 0.82MΩ	C64P325E-*****	25.5	40	95	0.5W, 0.82MΩ	C64R125E-*****
26.0	40	75	0.5W, 0.82MΩ	C64P1266-*****	26.0	40	95	0.5W, 0.82MΩ	C64P3266-*****	26.0	40	95	0.5W, 0.82MΩ	C64R1266-*****
26.5	40	75	0.5W, 0.82MΩ	C64P126E-*****	26.5	40	95	0.5W, 0.82MΩ	C64P326E-*****	26.5	40	95	0.5W, 0.82MΩ	C64R126E-*****
28.0	40	75	0.5W, 0.82MΩ	C64P1286-*****	28.0	40	95	0.5W, 0.82MΩ	C64P3286-*****	28.0	40	95	0.5W, 0.82MΩ	C64R1286-*****
30.0	35	95	0.5W, 0.47MΩ	C64P1306-*****	30.0	40	95	0.5W, 0.47MΩ	C64P3306-*****	30.0	45	95	0.5W, 0.47MΩ	C64R1306-*****
32.0	35	95	0.5W, 0.47MΩ	C64P1326-*****	32.0	40	95	0.5W, 0.47MΩ	C64P3326-*****	32.0	45	95	0.5W, 0.47MΩ	C64R1326-*****
34.0	35	95	0.5W, 0.47MΩ	C64P1346-*****	34.0	40	95	0.5W, 0.47MΩ	C64P3346-*****	34.0	45	95	0.5W, 0.47MΩ	C64R1346-*****
35.0	40	95	0.5W, 0.47MΩ	C64P1356-*****	35.0	45	95	0.5W, 0.47MΩ	C64P3356-*****	35.0	45	95	0.5W, 0.47MΩ	C64R1356-*****
36.0	40	95	0.5W, 0.47MΩ	C64P1366-*****	36.0	45	95	0.5W, 0.47MΩ	C64P3366-*****	36.0	45	95	0.5W, 0.47MΩ	C64R1366-*****
40.0	40	95	0.5W, 0.47MΩ	C64P1406-*****	40.0	45	95	0.5W, 0.47MΩ	C64P3406-*****	40.0	45	120	0.5W, 0.47MΩ	C64R1406-*****
45.0	40	95	0.5W, 0.47MΩ	C64P1456-*****	45.0	45	95	0.5W, 0.47MΩ	C64P3456-*****	45.0	45	120	0.5W, 0.47MΩ	C64R1456-*****
48.0	40	95	0.5W, 0.47MΩ	C64P1486-*****	48.0	45	120	0.5W, 0.47MΩ	C64P3486-*****	48.0	45	120	0.5W, 0.47MΩ	C64R1486-*****
50.0	45	95	0.5W, 0.47MΩ	C64P1506-*****	50.0	45	120	0.5W, 0.47MΩ	C64P3506-*****	50.0	45	120	0.5W, 0.47MΩ	C64R1506-*****
52.0	45	95	0.5W, 0.33MΩ	C64P1526-*****	52.0	45	120	0.5W, 0.33MΩ	C64P3526-*****	52.0	50	120	0.5W, 0.33MΩ	C64R1526-*****
55.0	45	95	0.5W, 0.33MΩ	C64P1556-*****	55.0	45	120	0.5W, 0.33MΩ	C64P3556-*****	55.0	50	120	0.5W, 0.33MΩ	C64R1556-*****
56.0	45	95	0.5W, 0.33MΩ	C64P1566-*****	56.0	45	120	0.5W, 0.33MΩ	C64P3566-*****	56.0	50	120	0.5W, 0.33MΩ	C64R1566-*****
60.0	45	95	0.5W, 0.33MΩ	C64P1606-*****	60.0	45	120	0.5W, 0.33MΩ	C64P3606-*****	60.0	50	120	0.5W, 0.33MΩ	C64R1606-*****
62.0	45	95	0.5W, 0.33MΩ	C64P1626-*****	62.0	50	120	0.5W, 0.33MΩ	C64P3626-*****	62.0	50	120	0.5W, 0.33MΩ	C64R1626-*****
64.0	45	95	0.5W, 0.33MΩ	C64P1646-*****	64.0	50	120	0.5W, 0.33MΩ	C64P3646-*****	64.0	50	120	0.5W, 0.33MΩ	C64R1646-*****
65.0	45	95	0.5W, 0.33MΩ	C64P1656-*****	65.0	50	120	0.5W, 0.33MΩ	C64P3656-*****	65.0	50	120	0.5W, 0.33MΩ	C64R1656-*****
70.0	45	120	0.5W, 0.33MΩ	C64P1706-*****	70.0	50	120	0.5W, 0.33MΩ	C64P3706-*****	70.0	50	130	0.5W, 0.33MΩ	C64R1706-*****
75.0	45	120	0.5W, 0.33MΩ	C64P1756-*****	75.0	50	120	0.5W, 0.33MΩ	C64P3756-*****	72.0	50	130	0.5W, 0.33MΩ	C64R1726-*****

备注 Note: 1. “-”表示容量偏差。 “-”=capacitance tolerance code, H=±3%, J=±5%, K=±10%。

2. “*****”表示内部特征码。 “*****” = Internal use.

3. 其它容量、尺寸系列可按用户需求商定。 Other values and dimensions are available on request.

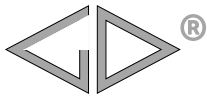


■ 外形尺寸 Dimensions(mm)

350Vac				
C _n (μF)	D ±2.0	H ±3.0	Discharge resistor	Part number
5.0	30	55	0.5W,0.82MΩ	C64R2505-*****
6.0	30	75	0.5W,0.82MΩ	C64R2605-*****
7.0	30	75	0.5W,0.82MΩ	C64R2705-*****
8.0	35	75	0.5W,0.82MΩ	C64R2805-*****
8.4	35	75	0.5W,0.82MΩ	C64R2845-*****
10.0	35	75	0.5W,0.82MΩ	C64R2106-*****
11.0	35	75	0.5W,0.82MΩ	C64R2116-*****
12.0	35	75	0.5W,0.82MΩ	C64R2126-*****
13.0	40	75	0.5W,0.82MΩ	C64R2136-*****
14.0	40	75	0.5W,0.82MΩ	C64R2146-*****
15.0	40	75	0.5W,0.82MΩ	C64R2156-*****
16.0	35	95	0.5W,0.82MΩ	C64R2166-*****
17.0	35	95	0.5W,0.82MΩ	C64R2176-*****
17.5	40	95	0.5W,0.82MΩ	C64R217E-*****
18.0	40	95	0.5W,0.82MΩ	C64R2186-*****
18.5	40	95	0.5W,0.82MΩ	C64R218E-*****
20.0	40	95	0.5W,0.82MΩ	C64R2206-*****
20.5	40	95	0.5W,0.82MΩ	C64R220E-*****
21.0	40	95	0.5W,0.82MΩ	C64R2216-*****
22.0	40	95	0.5W,0.82MΩ	C64R2226-*****
22.5	40	95	0.5W,0.82MΩ	C64R222E-*****
24.0	40	95	0.5W,0.82MΩ	C64R2246-*****
24.5	45	95	0.5W,0.82MΩ	C64R224E-*****
25.0	45	95	0.5W,0.82MΩ	C64R2256-*****
25.5	45	95	0.5W,0.82MΩ	C64R225E-*****
26.0	45	95	0.5W,0.82MΩ	C64R2266-*****
26.5	45	95	0.5W,0.82MΩ	C64R226E-*****
28.0	45	95	0.5W,0.82MΩ	C64R2286-*****
30.0	45	95	0.5W,0.47MΩ	C64R2306-*****
32.0	45	120	0.5W,0.47MΩ	C64R2326-*****
34.0	45	120	0.5W,0.47MΩ	C64R2346-*****
35.0	45	120	0.5W,0.47MΩ	C64R2356-*****
36.0	45	120	0.5W,0.47MΩ	C64R2366-*****
40.0	45	120	0.5W,0.47MΩ	C64R2406-*****
45.0	50	120	0.5W,0.47MΩ	C64R2456-*****
48.0	50	120	0.5W,0.47MΩ	C64R2486-*****
50.0	50	120	0.5W,0.47MΩ	C64R2506-*****
52.0	50	120	0.5W,0.33MΩ	C64R2526-*****
55.0	50	120	0.5W,0.33MΩ	C64R2556-*****

400Vac				
C _n (μF)	D ±2.0	H ±3.0	Discharge resistor	Part number
5.0	30	75	0.5W,0.82MΩ	C64G2505-*****
6.0	30	75	0.5W,0.82MΩ	C64G2605-*****
7.0	35	75	0.5W,0.82MΩ	C64G2705-*****
8.0	35	75	0.5W,0.82MΩ	C64G2805-*****
8.4	35	75	0.5W,0.82MΩ	C64G2845-*****
10.0	40	75	0.5W,0.82MΩ	C64G2106-*****
11.0	40	75	0.5W,0.82MΩ	C64G2116-*****
12.0	35	95	0.5W,0.82MΩ	C64G2126-*****
13.0	35	95	0.5W,0.82MΩ	C64G2136-*****
14.0	35	95	0.5W,0.82MΩ	C64G2146-*****
15.0	40	95	0.5W,0.82MΩ	C64G2156-*****
16.0	40	95	0.5W,0.82MΩ	C64G2166-*****
17.0	40	95	0.5W,0.82MΩ	C64G2176-*****
17.5	40	95	0.5W,0.82MΩ	C64G217E-*****
18.0	40	95	0.5W,0.82MΩ	C64G2186-*****
18.5	40	95	0.5W,0.82MΩ	C64G218E-*****
20.0	40	95	0.5W,0.82MΩ	C64G2206-*****
20.5	45	95	0.5W,0.82MΩ	C64G220E-*****
21.0	45	95	0.5W,0.82MΩ	C64G2216-*****
22.0	45	95	0.5W,0.82MΩ	C64G2226-*****
22.5	45	95	0.5W,0.82MΩ	C64G222E-*****
24.0	45	95	0.5W,0.82MΩ	C64G2246-*****
24.5	45	95	0.5W,0.82MΩ	C64G224E-*****
25.0	45	95	0.5W,0.82MΩ	C64G2256-*****
25.5	45	95	0.5W,0.82MΩ	C64G225E-*****
26.0	45	95	0.5W,0.82MΩ	C64G2266-*****
26.5	45	95	0.5W,0.82MΩ	C64G226E-*****
28.0	45	120	0.5W,0.82MΩ	C64G2286-*****
30.0	45	120	0.5W,0.47MΩ	C64G2306-*****
32.0	45	120	0.5W,0.47MΩ	C64G2326-*****
34.0	45	120	0.5W,0.47MΩ	C64G2346-*****
35.0	45	120	0.5W,0.47MΩ	C64G2356-*****
36.0	45	120	0.5W,0.47MΩ	C64G2366-*****
40.0	50	120	0.5W,0.47MΩ	C64G2406-*****
45.0	50	120	0.5W,0.47MΩ	C64G2456-*****
48.0	50	120	0.5W,0.47MΩ	C64G2486-*****
50.0	50	130	0.5W,0.47MΩ	C64G2506-*****

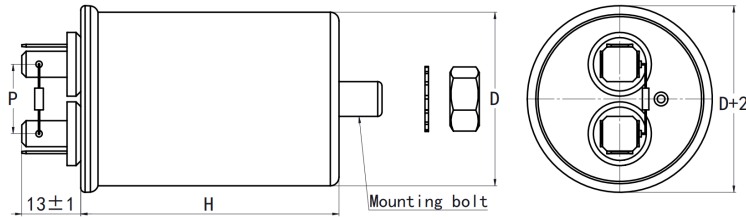
备注 Note: 1. “-”表示容量偏差。 “-” =capacitance tolerance code, H=±3%, J=±5%, K=±10%。
 2. “*****”表示内部特征码。 “*****” = Internal use.
 3. 其它容量、尺寸系列可按用户需要商定。 Other values and dimensions are available on request.



C6B

金属化聚丙烯膜灯具电容器(圆形, 防爆) Metallized polypropylene film capacitor for lamps(Round shape, Anti-explosion)

■ 外形图 Outline Drawing



■ 特点

与镇流器配套, 主要用于 HID 灯具如高压汞灯、钠灯、金属卤素灯等

电容器的表面温度可达 90°C

电容器内部采用机械防爆结构, 安全可靠

■ Features

The capacitors are designed specifically for HID Lighting applications where the capacitors are used as part of the ballast circuit for high-pressure mercury vapor lamps, sodium vapor lamps, and metal halide lamps

The temperature on capacitor surface is admitted to reach 90°C

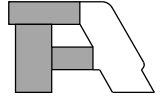
The capacitor is of internal mechanical explosion-proof structure, safe and reliable

■ 安全认证 Safety Approvals

●		CQC (中国)	GB/T 18489-2008, type B, 4.0μF~50μF, 540Vac, 50Hz/60Hz, -40°C/90°C 证书号(Certificate No.):CQC11004066550
●		UL (美国/加拿大)	UL810, CSA C22.2 N0.190, max.540Vac, 50Hz/60Hz, "Protected", 10 000AFC, max.90°C 证书号(File No.):E232771, CCN:CYWT2/8

■ 技术要求 Specifications

引用标准 Reference Standard	GB/T 18489-2008(IEC 61048:2006) GB/T 18504-2001 (IEC 61049:1991)		
额定电压 Rated Voltage (U_n)	280Vac, 300Vac, 400Vac, 480Vac, 540Vac, 600Vac		
额定频率 Rated Frequency (f_n)	50Hz/60Hz		
电容量范围 Capacitance Range (C_n)	4.0μF ~ 100.0μF		
电容量偏差 Capacitance Tolerance	±3%(H), ±5%(J), ±10%(K)		
额定最高温度(电容器表面温度, t_c) Rated Max. Temperature (on capacitor surface, t_c)	90°C		
气候类别 Climatic Category	40/90/21		
电容器类别 Type	Type B (self-healing capacitor)		
外壳类型 Case	Aluminum		
凝露 Condensation	Not permitted		
耐电压(引线之间) Test Voltage Between Terminals	2 U_n , 2s		
耐电压(极壳之间) Test Voltage Between Terminals to Case	3 000Vac, 60s (max. leakage current: 0.5mA)		
最高工作电压 Max. Operating Voltage	1.1 U_n		
额定电流 Rated Current (I_n)	$2\pi f_n C_n U_n \times 10^{-6}$ (A)(Unit of C_n : μF)		
最大工作电流 Max. Operating Current	1.3 I_n		
外壳防护等级 Degree of protection	IP00		
电极端子 Terminals	Push in connector or insulated wires		
最高使用海拔 Max Altitude	2 000m		
安装 Installation	引出端形式 Terminal form	插片式AMP250#每边3个 Tabs type three AMP250# per side	
	安装形式 Fixed style	底部螺栓 Bottom-bolt	M8×10(D≤50) M10×12(D=55) M12×16(D=60)
最大安装扭矩 Max.Torque of Installation	5N·m(M8)		8N·m(M10) 10N·m(M12)



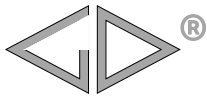
■ 产品编码说明 Part number system

15 位产品代码如下:

The 15 digits part number is formed as follow:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	6	B												

第 1~3 位	型号代码	Digit 1 to 3	Series code
	C6B		C6B
第 4~5 位	交流额定电压	Digit 4 to 5	AC rated voltage
	P3=280V R1=330V G2=400V		P3=280V R1=330V G2=400V
	S3=480V T1=540V U1=600V		S3=480V T1=540V U1=600V
第 6~8 位	标称容量	Digit 6 to 8	Rated capacitance value
	举例: $505=50 \times 10^5 \text{pF}=5.0\mu\text{F}$		for example: $505=50 \times 10^5 \text{pF}=5.0\mu\text{F}$
第 9 位	容量偏差	Digit 9	Capacitance tolerance
	H=±3%, J=±5%, K=±10%		H=±3%, J=±5%, K=±10%
第 10~15 位	内部特征码	Digit 10 to 15	Internal use



C6B

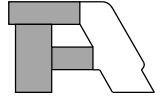
■ 外形尺寸 Dimensions(mm)

280Vac							330Vac						
C _n (μF)	D ±2.0	H ±3.0	P ±1.0	Mounting bolt	Discharge resistor	Part number	C _n (μF)	D ±2.0	H ±3.0	P ±1.0	Mounting bolt	Discharge resistor	Part number
4	40	60	16	M8 x 10	0.5W, 0.82MΩ	C6BP3405-*****	4	40	60	16	M8 x 10	0.5W, 0.82MΩ	C6BR1405-*****
5	40	60	16	M8 x 10	0.5W, 0.82MΩ	C6BP3505-*****	5	40	60	16	M8 x 10	0.5W, 0.82MΩ	C6BR1505-*****
6	40	60	16	M8 x 10	0.5W, 0.82MΩ	C6BP3605-*****	6	40	60	16	M8 x 10	0.5W, 0.82MΩ	C6BR1605-*****
7	40	60	16	M8 x 10	0.5W, 0.82MΩ	C6BP3705-*****	7	40	60	16	M8 x 10	0.5W, 0.82MΩ	C6BR1705-*****
8	40	60	16	M8 x 10	0.5W, 0.82MΩ	C6BP3805-*****	8	40	60	16	M8 x 10	0.5W, 0.82MΩ	C6BR1805-*****
9	40	60	16	M8 x 10	0.5W, 0.82MΩ	C6BP3905-*****	9	40	60	16	M8 x 10	0.5W, 0.82MΩ	C6BR1905-*****
10	40	60	16	M8 x 10	0.5W, 0.82MΩ	C6BP3106-*****	10	40	60	16	M8 x 10	0.5W, 0.82MΩ	C6BR1106-*****
11	40	60	16	M8 x 10	0.5W, 0.82MΩ	C6BP3116-*****	11	40	60	16	M8 x 10	0.5W, 0.82MΩ	C6BR1116-*****
12	40	60	16	M8 x 10	0.5W, 0.82MΩ	C6BP3126-*****	12	40	60	16	M8 x 10	0.5W, 0.82MΩ	C6BR1126-*****
13	40	60	16	M8 x 10	0.5W, 0.82MΩ	C6BP3136-*****	13	40	60	16	M8 x 10	0.5W, 0.82MΩ	C6BR1136-*****
15	40	60	16	M8 x 10	0.5W, 0.82MΩ	C6BP3156-*****	15	40	60	16	M8 x 10	0.5W, 0.82MΩ	C6BR1156-*****
16	40	60	16	M8 x 10	0.5W, 0.82MΩ	C6BP3166-*****	16	40	60	16	M8 x 10	0.5W, 0.82MΩ	C6BR1166-*****
18	40	60	16	M8 x 10	0.5W, 0.82MΩ	C6BP3186-*****	18	40	75	16	M8 x 10	0.5W, 0.82MΩ	C6BR1186-*****
20	40	60	16	M8 x 10	0.5W, 0.82MΩ	C6BP3206-*****	20	40	75	16	M8 x 10	0.5W, 0.82MΩ	C6BR1206-*****
22	45	60	18	M8 x 10	0.5W, 0.82MΩ	C6BP3226-*****	22	40	75	16	M8 x 10	0.5W, 0.82MΩ	C6BR1226-*****
24	45	60	18	M8 x 10	0.5W, 0.82MΩ	C6BP3246-*****	24	40	75	16	M8 x 10	0.5W, 0.82MΩ	C6BR1246-*****
26	45	60	18	M8 x 10	0.5W, 0.82MΩ	C6BP3266-*****	26	45	75	18	M8 x 10	0.5W, 0.82MΩ	C6BR1266-*****
28	40	75	16	M8 x 10	0.5W, 0.82MΩ	C6BP3286-*****	28	45	75	18	M8 x 10	0.5W, 0.82MΩ	C6BR1286-*****
29	40	75	16	M8 x 10	0.5W, 0.82MΩ	C6BP3296-*****	29	45	75	18	M8 x 10	0.5W, 0.82MΩ	C6BR1296-*****
30	40	75	16	M8 x 10	0.5W, 0.82MΩ	C6BP3306-*****	30	45	75	18	M8 x 10	0.5W, 0.82MΩ	C6BR1306-*****
32	45	75	18	M8 x 10	0.5W, 0.82MΩ	C6BP3326-*****	32	45	75	18	M8 x 10	0.5W, 0.47MΩ	C6BR1326-*****
35	45	75	18	M8 x 10	0.5W, 0.47MΩ	C6BP3356-*****	28	40	100	16	M8 x 10	0.5W, 0.82MΩ	C6BR1286-*****
38	45	75	18	M8 x 10	0.5W, 0.47MΩ	C6BP3386-*****	29	40	100	16	M8 x 10	0.5W, 0.82MΩ	C6BR1296-*****
42	45	75	18	M8 x 10	0.5W, 0.47MΩ	C6BP3426-*****	30	40	100	16	M8 x 10	0.5W, 0.82MΩ	C6BR1306-*****
46	50	75	18	M8 x 10	0.5W, 0.47MΩ	C6BP3466-*****	32	40	100	16	M8 x 10	0.5W, 0.47MΩ	C6BR1326-*****
42	40	100	16	M8 x 10	0.5W, 0.47MΩ	C6BP3426-*****	35	50	75	18	M8 x 10	0.5W, 0.47MΩ	C6BR1356-*****
46	40	100	16	M8 x 10	0.5W, 0.47MΩ	C6BP3466-*****	38	40	100	16	M8 x 10	0.5W, 0.47MΩ	C6BR1386-*****
51	50	75	18	M8 x 10	0.5W, 0.47MΩ	C6BP3516-*****	42	45	100	18	M8 x 10	0.5W, 0.47MΩ	C6BR1426-*****
56	45	100	18	M8 x 10	0.5W, 0.47MΩ	C6BP3566-*****	46	45	100	18	M8 x 10	0.5W, 0.47MΩ	C6BR1466-*****
62	45	100	18	M8 x 10	1.0W, 0.33MΩ	C6BP3626-*****	51	45	100	18	M8 x 10	0.5W, 0.47MΩ	C6BR1516-*****
68	50	100	18	M8 x 10	1.0W, 0.33MΩ	C6BP3686-*****	56	50	100	18	M8 x 10	1.0W, 0.33MΩ	C6BR1566-*****
75	50	100	18	M8 x 10	1.0W, 0.33MΩ	C6BP3756-*****	62	50	100	18	M8 x 10	1.0W, 0.33MΩ	C6BR1626-*****
83	50	100	18	M8 x 10	1.0W, 0.33MΩ	C6BP3836-*****	68	50	125	18	M8 x 10	1.0W, 0.33MΩ	C6BR1686-*****
91	50	125	18	M8 x 10	1.0W, 0.27MΩ	C6BP3916-*****	75	50	125	18	M8 x 10	1.0W, 0.33MΩ	C6BR1756-*****
100	50	125	18	M8 x 10	1.0W, 0.27MΩ	C6BP3107-*****	83	50	125	18	M8 x 10	1.0W, 0.27MΩ	C6BR1836-*****

备注 Note: 1. “-” 表示容量偏差。 “-” =capacitance tolerance code, H=±3%, J=±5%, K=±10%.

2. “*****” 表示内部特征码。 “*****” = Internal use.

3. 其它容量、尺寸系列可按用户需要商定。 Other values and dimensions are available on request.



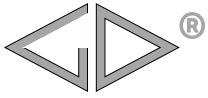
■ 外形尺寸 Dimensions(mm)

400Vac							480Vac						
C _n (μF)	D ±2.0	H ±3.0	P ±1.0	Mounting bolt	Discharge resistor	Part number	C _n (μF)	D ±2.0	H ±3.0	P ±1.0	Mounting bolt	Discharge resistor	Part number
4	40	60	16	M8 x 10	0.5W, 0.82MΩ	C6BG2405-*****	4	40	60	16	M8 x 10	1.0W, 0.82MΩ	C6BS3405-*****
5	40	60	16	M8 x 10	0.5W, 0.82MΩ	C6BG2505-*****	5	40	60	16	M8 x 10	1.0W, 0.82MΩ	C6BS3505-*****
6	40	60	16	M8 x 10	0.5W, 0.82MΩ	C6BG2605-*****	6	40	60	16	M8 x 10	1.0W, 0.82MΩ	C6BS3605-*****
7	40	60	16	M8 x 10	0.5W, 0.82MΩ	C6BG2705-*****	7	40	60	18	M8 x 10	1.0W, 0.82MΩ	C6BS3705-*****
8	40	60	16	M8 x 10	0.5W, 0.82MΩ	C6BG2805-*****	8	45	60	18	M8 x 10	1.0W, 0.82MΩ	C6BS3805-*****
9	40	60	18	M8 x 10	0.5W, 0.82MΩ	C6BG2905-*****	9	45	60	18	M8 x 10	1.0W, 0.82MΩ	C6BS3905-*****
10	45	60	18	M8 x 10	0.5W, 0.82MΩ	C6BG2106-*****	10	45	60	18	M8 x 10	1.0W, 0.82MΩ	C6BS3106-*****
11	45	60	18	M8 x 10	0.5W, 0.82MΩ	C6BG2116-*****	11	40	75	16	M8 x 10	1.0W, 0.82MΩ	C6BS3116-*****
12	45	60	16	M8 x 10	0.5W, 0.82MΩ	C6BG2126-*****	12	45	75	18	M8 x 10	1.0W, 0.82MΩ	C6BS3126-*****
13	45	60	16	M8 x 10	0.5W, 0.82MΩ	C6BG2136-*****	13	45	75	18	M8 x 10	1.0W, 0.82MΩ	C6BS3136-*****
15	45	75	18	M8 x 10	0.5W, 0.82MΩ	C6BG2156-*****	13	40	100	16	M8 x 10	1.0W, 0.82MΩ	C6BS3136-*****
16	45	75	18	M8 x 10	0.5W, 0.82MΩ	C6BG2166-*****	15	45	75	18	M8 x 10	1.0W, 0.82MΩ	C6BS3156-*****
18	45	75	18	M8 x 10	0.5W, 0.82MΩ	C6BG2186-*****	16	40	100	18	M8 x 10	1.0W, 0.82MΩ	C6BS3166-*****
20	45	75	18	M8 x 10	0.5W, 0.82MΩ	C6BG2206-*****	18	45	100	18	M8 x 10	1.0W, 0.82MΩ	C6BS3186-*****
18	40	100	16	M8 x 10	0.5W, 0.82MΩ	C6BG2186-*****	20	45	100	18	M8 x 10	1.0W, 0.82MΩ	C6BS3206-*****
20	40	100	16	M8 x 10	0.5W, 0.82MΩ	C6BG2206-*****	22	45	100	18	M8 x 10	1.0W, 0.82MΩ	C6BS3226-*****
22	50	75	18	M8 x 10	0.5W, 0.82MΩ	C6BG2226-*****	24	50	100	18	M8 x 10	1.0W, 0.82MΩ	C6BS3246-*****
24	50	75	18	M8 x 10	0.5W, 0.82MΩ	C6BG2246-*****	26	50	100	18	M8 x 10	1.0W, 0.82MΩ	C6BS3266-*****
26	45	100	18	M8 x 10	0.5W, 0.82MΩ	C6BG2266-*****	28	50	100	18	M8 x 10	1.0W, 0.47MΩ	C6BS3286-*****
28	45	100	18	M8 x 10	0.5W, 0.82MΩ	C6BG2286-*****	29	50	100	18	M8 x 10	1.0W, 0.47MΩ	C6BS3296-*****
29	45	100	18	M8 x 10	0.5W, 0.82MΩ	C6BG2296-*****	30	50	100	18	M8 x 10	1.0W, 0.47MΩ	C6BS3306-*****
30	45	100	18	M8 x 10	1.0W, 0.47MΩ	C6BG2306-*****	32	50	125	18	M8 x 10	1.0W, 0.47MΩ	C6BS3326-*****
32	50	100	18	M8 x 10	1.0W, 0.47MΩ	C6BG2326-*****	35	50	125	18	M8 x 10	1.0W, 0.47MΩ	C6BS3356-*****
35	50	100	18	M8 x 10	1.0W, 0.47MΩ	C6BG2356-*****	38	50	125	18	M8 x 10	1.0W, 0.47MΩ	C6BS3386-*****
38	50	100	18	M8 x 10	1.0W, 0.47MΩ	C6BG2386-*****	42	50	125	18	M8 x 10	1.0W, 0.47MΩ	C6BS3426-*****
42	45	125	18	M8 x 10	1.0W, 0.47MΩ	C6BG2426-*****	46	55	130	20	M10 x 12	1.0W, 0.47MΩ	C6BS3466-*****
46	50	125	18	M8 x 10	1.0W, 0.47MΩ	C6BG2466-*****	51	55	130	20	M10 x 12	2.0W, 0.33MΩ	C6BS3516-*****
51	50	125	18	M8 x 10	1.0W, 0.33MΩ	C6BG2516-*****	56	60	130	20	M12 x 16	2.0W, 0.33MΩ	C6BS3566-*****
56	55	130	20	M10 x 12	1.0W, 0.33MΩ	C6BG2566-*****	60	60	130	20	M12 x 16	2.0W, 0.33MΩ	C6BS3606-*****
62	55	130	20	M10 x 12	1.0W, 0.33MΩ	C6BG2626-*****							
68	55	130	20	M10 x 12	1.0W, 0.33MΩ	C6BG2686-*****							

备注 Note: 1. “-”表示容量偏差。 “-”=capacitance tolerance code, H=±3%, J=±5%, K=±10%.

2. “*****”表示内部特征码。 “*****”= Internal use.

3. 其它容量、尺寸系列可按用户需要商定。 Other values and dimensions are available on request.



C6B

■ 外形尺寸 Dimensions(mm)

540Vac							600Vac						
C _n (μF)	D ±2.0	H ±3.0	P ±1.0	Mounting bolt	Discharge resistor	Part number	C _n (μF)	D ±2.0	H ±3.0	P ±1.0	Mounting bolt	Discharge resistor	Part number
4	40	60	16	M8 x 10	1.0W, 0.82MΩ	C6BT1405-*****	4	40	60	16	M8 x 10	1.0W, 0.82MΩ	C6BU1405-*****
5	40	60	16	M8 x 10	1.0W, 0.82MΩ	C6BT1505-*****	5	45	60	18	M8 x 10	1.0W, 0.82MΩ	C6BU1505-*****
6	45	60	18	M8 x 10	1.0W, 0.82MΩ	C6BT1605-*****	6	40	75	16	M8 x 10	1.0W, 0.82MΩ	C6BU1605-*****
7	40	75	16	M8 x 10	1.0W, 0.82MΩ	C6BT1705-*****	7	40	75	16	M8 x 10	1.0W, 0.82MΩ	C6BU1705-*****
8	40	75	16	M8 x 10	1.0W, 0.82MΩ	C6BT1805-*****	8	45	75	18	M8 x 10	1.0W, 0.82MΩ	C6BU1805-*****
9	45	75	18	M8 x 10	1.0W, 0.82MΩ	C6BT1905-*****	9	45	75	18	M8 x 10	1.0W, 0.82MΩ	C6BU1905-*****
10	45	75	18	M8 x 10	1.0W, 0.82MΩ	C6BT1106-*****	8	40	100	16	M8 x 10	1.0W, 0.82MΩ	C6BU1805-*****
11	45	75	18	M8 x 10	1.0W, 0.82MΩ	C6BT1116-*****	9	40	100	16	M8 x 10	1.0W, 0.82MΩ	C6BU1905-*****
10	40	100	16	M8 x 10	1.0W, 0.82MΩ	C6BT1106-*****	10	50	75	18	M8 x 10	1.0W, 0.82MΩ	C6BU1106-*****
11	40	100	16	M8 x 10	1.0W, 0.82MΩ	C6BT1116-*****	11	50	75	18	M8 x 10	1.0W, 0.82MΩ	C6BU1116-*****
12	50	75	18	M8 x 10	1.0W, 0.82MΩ	C6BT1126-*****	12	50	75	18	M8 x 10	1.0W, 0.82MΩ	C6BU1126-*****
13	50	75	18	M8 x 10	1.0W, 0.82MΩ	C6BT1136-*****	13	45	100	18	M8 x 10	1.0W, 0.82MΩ	C6BU1136-*****
15	50	75	18	M8 x 10	1.0W, 0.82MΩ	C6BT1156-*****	15	45	100	18	M8 x 10	1.0W, 0.82MΩ	C6BU1156-*****
16	45	100	18	M8 x 10	1.0W, 0.82MΩ	C6BT1166-*****	16	50	100	18	M8 x 10	1.0W, 0.82MΩ	C6BU1166-*****
18	45	100	18	M8 x 10	1.0W, 0.82MΩ	C6BT1186-*****	18	50	100	18	M8 x 10	1.0W, 0.82MΩ	C6BU1186-*****
20	50	100	18	M8 x 10	1.0W, 0.82MΩ	C6BT1206-*****	20	45	125	18	M8 x 10	1.0W, 0.82MΩ	C6BU1206-*****
22	50	100	18	M8 x 10	1.0W, 0.82MΩ	C6BT1226-*****	22	50	125	18	M8 x 10	1.0W, 0.82MΩ	C6BU1226-*****
24	50	100	18	M8 x 10	1.0W, 0.82MΩ	C6BT1246-*****	24	50	125	18	M8 x 10	1.0W, 0.82MΩ	C6BU1246-*****
26	50	125	18	M8 x 10	2.0W, 0.47MΩ	C6BT1266-*****	26	50	125	18	M8 x 10	2.0W, 0.47MΩ	C6BU1266-*****
28	50	125	18	M8 x 10	2.0W, 0.47MΩ	C6BT1286-*****	28	55	130	20	M10 x 12	2.0W, 0.47MΩ	C6BU1286-*****
29	50	125	18	M8 x 10	2.0W, 0.47MΩ	C6BT1296-*****	29	55	130	20	M10 x 12	2.0W, 0.47MΩ	C6BU1296-*****
30	50	125	18	M8 x 10	2.0W, 0.47MΩ	C6BT1306-*****	30	55	130	20	M10 x 12	2.0W, 0.47MΩ	C6BU1306-*****
30	55	130	20	M10 x 12	2.0W, 0.47MΩ	C6BT1306-*****	32	55	130	20	M10 x 12	2.0W, 0.47MΩ	C6BU1326-*****
32	50	125	18	M8 x 10	2.0W, 0.47MΩ	C6BT1326-*****	34	60	130	20	M12 x 16	2.0W, 0.47MΩ	C6BU1346-*****
35	55	130	20	M10 x 12	2.0W, 0.47MΩ	C6BT1356-*****	35	60	130	20	M12 x 16	2.0W, 0.47MΩ	C6BU1356-*****
38	55	130	20	M10 x 12	2.0W, 0.47MΩ	C6BT1386-*****	36	60	130	20	M12 x 16	2.0W, 0.47MΩ	C6BU1366-*****
40	55	130	20	M10 x 12	2.0W, 0.47MΩ	C6BT1406-*****	40	60	130	20	M12 x 16	2.0W, 0.47MΩ	C6BU1406-*****
46	60	130	20	M12 x 16	2.0W, 0.33MΩ	C6BT1466-*****							
51	60	130	20	M12 x 16	2.0W, 0.33MΩ	C6BT1516-*****							

备注 Note: 1. “-” 表示容量偏差。 “-” =capacitance tolerance code, H=±3%, J=±5%, K=±10%.

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3. 其它容量、尺寸系列可按用户需要商定。 Other values and dimensions are available on request.