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# FILM CAPACITORS

CONTACT:

DONGGUAN WIN SHINE ELECTRONIC CO., LTD. （东莞宏强电子有限公司）

NO.22, HONGYUAN ROAD, NANCHENG DISTRICT, DONGGUAN CITY,

GUANGDONG PROVINCE, CHINA.

TEL.: +86 769 22414096 FAX: +86 769 22414097 POSTAL CODE: 523087

# 薄膜电容器

## FILM CAPACITORS

### 薄膜电容器简介
### FILM CAPACITORS General information



### 聚酯膜/聚丙膜电容器
### Ponyester/polypropylene capacitors

| 型号 Series | 名 称 Name | 特 征 Descriptron | 特 点 Feature | 额定电压 Rated Voltge(V) | 标称电容量 Norminal Capacitance (μF) | 页次 Page |
|---|---|---|---|---|---|---|
| CL11 | 有感箔式聚酯膜电容器 Inductive polyester film/foil capacitor | 有感式浸渍型 Inductive dipped | 价廉多用途 Low cost Multipurpose applications | 100~160 | 0.001 ~ 0.47 | 94 |
| | | | | 250 | 0.001 ~ 0.22 | |
| | | | | 400 | 0.001 ~ 0.12 | |
| | | | | 630 | 0.001 ~ 0.033 | |
| | | | | 1000 | 0.001 ~ 0.01 | |
| | | | | 1200、1500 | 0.001 ~ 0.01 | |
| CL11X | 小型有感箔式聚酯膜电容器 Inminiature inductive polyester film/foil capacitor | 有感式浸渍型 Inductive dipped | 尺寸小 多用途 Small size Mulipurpose applications | 63~160 | 0.001 ~ 0.47 | 97 |
| CH11 | 有感箔式聚酯/聚丙烯膜复合介质电容器 Inductive polyester/polypropylene film/foil capacitor | 有感式聚酯/聚丙复合介质 Inductive PET/PP dielec trics | 电容量温度系数小损耗小 Small temperature coeffcient of capaci–tame Low dissipa tion factor | 100~160 | 0.001 ~ 0.1 | 98 |
| | | | | 250 | 0.001 ~ 0.1 | |
| | | | | 400 | 0.001 ~ 0.047 | |
| | | | | 630 | 0.001 ~ 0.033 | |
| | | | | 1000 | 0.001 ~ 0.01 | |
| | | | | 1200 | 0.001 ~ 0.01 | |

# 目录(薄膜电容器)

SD

## CONTENTE(FILM CAPACITORS)

| 型号 Series | 名 称 Name | 特 征 Descriptron | 特 点 Feature | 额定电压 Rated Voltge(V) | 标称电容量 Norminal Capacitance (μF) | 页次 Page |
|---|---|---|---|---|---|---|
| CBB11 | 有感箔式聚丙烯膜电容器 Inductive polypropylene film/foil capacitor | 有感式浸渍型 Inductive dipped | 损耗低，多用途 Small loss, multipurpose applications | 100 | 0.001~0.1 | 100 |
| | | | | 250 | 0.001~0.047 | |
| | | | | 400 | 0.001~0.047 | |
| | | | | 630 | 0.001~0.027 | |
| CL21(A) | 金属化聚酯膜电容器 Metallized polyester film capacitor | 金属化浸渍型 或粉末包封 Metallized dipped miniature type or powder coating | 多用途 Multipurpose applications | 100 | 0.0033 ~ 6.8 | 102 |
| | | | | 250 | 0.0033 ~ 4.7 | |
| | | | | 400 | 0.0033 ~ 2.2 | |
| | | | | 630 | 0.0033 ~ 1.0 | |
| CL21X | 小型金属化聚酯膜电容器 In miniature metallized polyester film capacitor | 金属化浸渍型 或粉末包封 Metallized dipped miniature type or powder coating | 尺寸小，多用途 Small size Milltipurpose applieations | 100 | 0.001 ~ 1.0 | 104 |
| CL23 | 塑料外壳金属化聚酯膜电容器 BOX-type metallized polyester film capacitor | 金属化，盒式封装 Metallized, box-type | 性能优越多用途 High performances multipurpose applications | 63 | 0.001~1 | 106 |
| | | | | 100 | 0.001~0.56 | |
| | | | | 250 | 0.001~0.15 | |
| | | | | 400 | 0.001~0.047 | |
| | | | | 500 | 0.001~0.027 | |
| | | | | 630 | 0.001~0.018 | |
| CL81 | 高压金属化箔式聚酯膜电容器 High-voltage metallized foil series polyester film capacitor | 高压金属化浸渍型 High-Votage Metallized dipped | 多用途 Multipurpose applications | 1000 | 0.0022 ~ 0.22 | 109 |
| | | | | 1250 | 0.0022 ~ 0.10 | |
| CL12 | 无感箔式聚酯膜电容器 Non-inductive polyester film capacitor | 金属箔式、无感式、浸渍型 Metal foil non-induitive dipped | 多用途 Multipurpose applications | 50/63/100 | 0.001 ~ 0.47 | 111 |
| CL20 | 轴向金属化聚酯膜电容器 Axial-type metallized polyester film capacitors | 金属化，轴向 Metallized axial type | 多用途 Multipurpose applications | 100 | 0.068 ~ 10.0 | 113 |
| | | | | 250 | 0.015 ~ 6.8 | |
| | | | | 400 | 0.01 ~ 3.3 | |
| | | | | 630 | 0.01 ~ 1.0 | |
| | | | | 1000 | 0.001 ~ 0.47 | |
| CBB18 /CBB13 | 无感箔式聚丙烯膜电容器 Non-inductive polypropylene film/foil capacitor | 金属箔式 无感式浸渍型 Metal foil non -indllctive dipped | 损耗极低多用途 Very small loss multipurpose applications | 100 ~ 200 | 0.001 ~ 0.47 | 114 |
| | | | | 250 | 0.001 ~ 0.39 | |
| | | | | 400 | 0.001 ~ 0.15 | |
| | | | | 630 | 0.001 ~ 0.068 | |
| | | | | 1000 | 0.001 ~ 0.047 | |
| | | | | 125 ~ 1600 | 0.001 ~ 0.12 | |
| CBB22(A) /CBB21(A) | 金属化聚丙烯膜电容器 Metallized polypropylene film capacitor | 金属化浸渍型 Metallized dipped | 多用途 Multipurpose applications | 250 | 0.047 ~ 2.2 | 116 |
| | | | | 400 | 0.022 ~ 1.5 | |
| | | | | 630 | 0.01 ~ 0.68 | |

# 目录(薄膜电容器)



## CONTENTE(FILM CAPACITORS)



## 抑制电源电磁干扰用电容器 Interference suppression capacitors



## 交流电动机用电容器 A.C.Motor capacitors

# 薄膜电容器简介

# FILM CAPACITORS GENERAL INFORMATION

## 一、电子设备用固定薄膜电容器的标准体系及术语

电子设备用固定薄膜电容器的标准体系是由基础标准，总规范，分规范，空白详细规范，以及详细规范（即企业标准）组成。或者说，企业标准是按总规范和分规范的基本要求，填写空白详细规范而成。

总规范规定了分规范和详细规范中使用的标准术语、检验程序和试验方法。分规范是按电容器的介质和结构分类的，它是对该类电容器规范优先额定值和特征，并从总规范中选择适当的质量评定程序、试验和测量方法，以及给出一般性能要求。空白详细规范是分规范的一种补充文件，并包括详细规范的格式、编排和最少内容的要求。

薄膜电容器的标准体系，举例如下：

## 1、The standard system and terminology of fixed plastic film capacitor for use in electronic equipment

The standard system of fixed plastic film capacitor for use in electronic equip-ment includes the foundational standard, Generic Specification, Sectional Specification, Blank Detail Specification and Detail Specification, or Manufacturer Speci-fication. That is, a Manufacturer Specification is derived from Blank Detail Specification according to the basic requirements of Generic and Sectional Specifications.

Generic Specification specifies the terminology, inspection procedures and test methods applied in Sectional and Detail Specifications, Sectional Specification is clas-sified according to the specific dielectric material and construction of capacitor, it pre-scribes preferred rating and characteristics and to select from Generic Specification the appropriate quality assessment procedures, tests and measuring methods and to give general performance requirements for this type of capacitor. Blank Detail Speci-fication is a supplementary document to the Sectional Specification and contains requirements for style, layout and minimum contents of Detail Specifications.

Following please find the corresponding specification lists for plastic film capacitors.

| 标准号（No.） | 标准（Standards） |
|---|---|
| GB/T 2693<br>(IEC 60384-1) | 第1部分：总规范<br>Part 1 : Generic specification |
| GB/T 7332<br>(IEC 60384-2) | 第2部分：分规范：金属化聚酯膜介质直流固定电容器<br>Part 2 : Sectional specification: Fixed metallized polyester film D.C.capacitor |
| GB/T 7333<br>(IEC 60384-2-1) | 第2部分：空白详细规范：金属化聚酯膜介质直流固定电容器<br>Part 2 : Blank detail specification : Fixed metallized polyester film D.C.capacitor |
| | 详细规范：Detail specification for CL21(A)、CL21X、CL23、CL81、CL20 |
| GB/T 6346<br>(IEC 60384-11) | 第11部分：分规范：金属箔式聚酯膜介质直流固定电容器<br>Part 11: Sectional specification : Fixed polyester film metal foil D.C.capacitor |
| GB/T 6347<br>(IEC 60384-11-1) | 第11部分：空白详细规范：金属箔式聚酯膜介质直流固定电容器<br>Part 11: Blank detail specification:Fixed polyester film metal foil D.C.capacitor |
| | 详细规范：Detail specification for CL12、CL11、CL11X、CH11 |
| GB/T 10188<br>(IEC 60384-13) | 第13部分：分规范：金属箔式聚丙烯膜介质直流固定电容器<br>Part 13 : Sectioal specification: Fixed polypropylene film metal foil D.C. capacitor |
| GB/T 10189<br>(IEC 60384-13-1) | 第13部分：空白详细规范：金属箔式聚丙烯膜介质直流固定电容器<br>Part 13 : Blank detail specification: Fixed polypropylene film metal foil D.C. capacitor |
| | 详细规范：Detail specification for CBB11、CBB18(CBB13)、CBB28 |
| GB/T 14472<br>(IEC 60884-14) | 第14部分：分规范：抑制电源电磁干扰用固定电容器<br>Part 14: Sectional specification: Fixed capacitors for electromagnetic interference suppression and connection to the supply mains |
| GB/T 14473<br>(IEC 60384-14-1) | 第14部分：空白详细规范：抑制电源电磁干扰用固定电容器<br>Part 14 : Blank detail specification : Fixed capacitors for electromagnetic interference suppression and connection to the supply mains |
| | 详细规范：Detail specification for CBB62、MKPX1、MKPX2 |
| GB/T 10190<br>(IEC 60384-16) | 第16部分：分规范：金属化聚丙烯膜介质直流固定电容器<br>Part 16 :Sectional specification:Fixed metallized polypropylene film D.C. capacitor |
| GB/T 10191<br>(IEC 60384-16-1) | 第16部分：空白详细规范：金属化聚丙烯膜介质直流固定电容器<br>Part 16:Blank detail specification: Fixed metallized polypropylene film D.C. capacitor |
| | 详细规范：Detail specification for CBB22(A)/CBB21(A)、CBB20、CBB81(A)、MKP81 |
| GB/T 14579<br>(IEC 60384-17) | 第17部分：分规范，金属化聚丙烯膜介质交流和脉冲固定电容器<br>Part17: Sectional specification: Fixed metallized polypropylene film A.C. and pulse capacitor |
| GB/T 14580<br>(IEC 60384-17-1) | 第17部分：空白详细规范：金属化聚丙膜介质交流和脉冲固定电容器<br>Part17: Blank detail specification:Fixed metallized polypropylene film A.C. and pulse capacitor |
| GB3667(IEC-60252) | 交流电动机电容器<br>A.C. motor capacitors |
| | 详细规范：Detail specification for CBB60,CBB61,CBB65 |

## 二、一些常用的标准术语

**1、上限类别温度**

电容器设计所确定的能连续工作的最高环境温度。

**2、下限类别温度**

电容器设计所确定的能连续工作的最低环境温度。

**3、额定温度**

可以连续施加额定电压的最高环境温度。

**4、额定电压（$U_R$）**

在下限类别温度和额定温度之间的任一温度下，可以连续施加在电容器上的最大直流电压或脉冲电压的峰值。

**5、类别电压（$U_C$）**

电容器在上限类别温度下可以连续施加在电容器上的最高电压。

**6、温度降额电压**

温度降额电压是在确定温度和上限类别温度之间的任一温度下，可以连续施加在电容器上的最高电压。

**7、气侯类别**

电容器所属的气侯类别用斜线分隔的三个数来表示（IEC 60068-1:如：55/100/56）。

55/100/56
- 稳态湿热实验的天数（56天）
- 上限类别温度（+100℃）
- 下限类别温度（-55℃）

**8、损耗角正切（tg δ）**

在规定频率的正统波电压作用下，电容器的损耗功率除以电容器的无功功率。

## 二、Terminologies

**1. Upper Category Temperature**

The highest environmental temperature determined by capacitors design and in which copacitor may continuously work.

**2. Lower Category Temperature**

The lowest environmental temperature determined by capacitors design and in which capacitor may continuously work.

**3.Rated Temperature**

The highest environmental temperature in which capacitor applied continuously with the rated voltage.

**4.Rate Voltage(UR)**

The maximum D.C. voltage or peak value of pulse voltage that can be applied continuously to capacitor at any temperature between lower category temperature and rated temperature.

**5. Category Voltage(UC)**

The maximum voltage that can be applied continuously to capacitor at upper category temperature.

**6. Temperature Derated Voltage**

The maximum voltage that can be applied continuously to capacitor at any temperature between rated temperature and upper category temperature.

**7. Climatic category**

The climatic category which the capacitor belongs to is expressed in three numbers separated by slashes,(IEC 60068-1:example 55/100/56).

55/100/56
- days relevant to the damp heat test(56days)
- the upper category temperature(+100℃)
- the lower category temperature(-55℃)

**8. Dissipation factor (tg δ)**

The dissipation factor is ratio between reative power of the impedance of the capacitor and effective power when capacitor is submitted to a sinusoidal voltage of specified frequency.

**9、容量温度系数（a）**

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℃时电容量为参考，用百万分之一每摄氏度（$10^{-6}$/℃）表示（$10^{-6}$/℃=1ppm/℃）。

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

Ci:电容器在温度Ti时容量

C0:电容器在$T_0$(20±2) ℃时的容量

**10、绝缘电阻（I.R.）/时间常数（t）**

绝缘电阻为电容器充电一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]=I.R.[MΩ] ×C[μF]

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：$C_R$＞0.33μF)电容器的绝缘特性。

**11、自愈性（仅对金属化膜电容器）**

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。

**9.Temperature coefficient of capacitance(a)**

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($10^{-6}$/℃)and referred to 20℃.

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

Ci:Capacitance at temperature Ti.

Co:Capacitance at temperature To(20±2) ℃.

**10. Insulation resistance(I.R.)/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]=I.R.[MΩ] ×C[μF]

In general, Insulation resistance is used for describing smaller capacitance capacitors' insulation character, Time Constant for describing larger ones'(example:$C_R$＞0.33μF)

**11.Self-healing(Only to metallized film capacitor)**

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 wou nergy 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.

# 薄膜电容器简介



## FILM CAPACITORS GENERAL INFORMATION

### 三、薄膜电容器的基本结构（Film capacitor basic construction）：

电容器结构示意图（Different capacitor constructions）

|  |  |  |  |  |
|---|---|---|---|---|
| CL21、CL21X、CBB22/21、<br>CL23、CBB62、MKPX1/X2 | CL11、CL11X、<br>CH11、CBB11 | CBB81A | CL12、CBB18/13 | CL21A、CBB22/21A |
| |  |  |  | |
| | CBB81、MKPCBB81 | CBB28 | MKPCBB81 | |

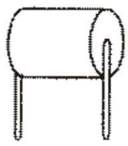

金属化薄膜
Metallized film


金属箔
Metal foil

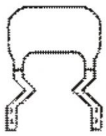

双面金属化膜
Double sided metallized film


薄膜Film

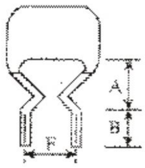
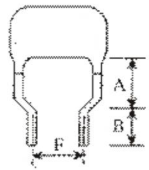
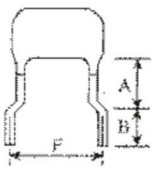
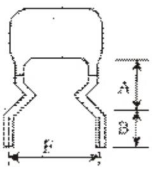
卷绕结构（Winding construction）

| 卷绕式径向产品<br>（Wound capacitor, radial leads） |
|---|
|  |

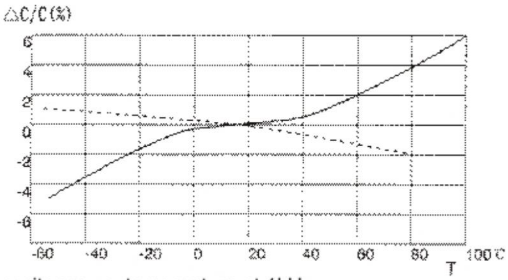
封装方式（Ways of sealing）

| 浸渍型包封<br>Dipped by epoxy resin | 盒式封装<br>Sealed in box |
|---|---|
|  |  |

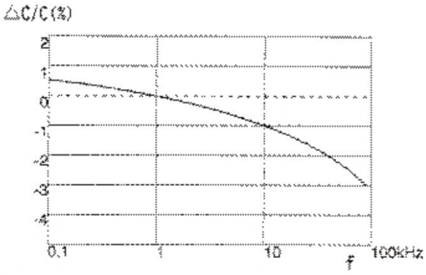
浸渍型电容器引出线成型形状 Lead kinked for dipped-type capacitor

| 代号（Code） | Ⅰ | Ⅱ | Ⅲ | Ⅳ |
|---|---|---|---|---|
| 成型形状<br>Forming shape |  |  |  |  |
| 适用范围<br>Applicable range | P≥F | | P＜F | |
| | 0mm≤P−F≤3mm | 3mm＜P−F≤8mm | 3mm＜F−P≤5mm | 0mm＜F−P≤3mm |

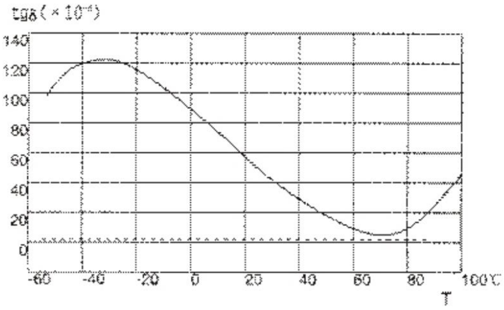
## 四、典型的电容器特性曲线Typical graphs



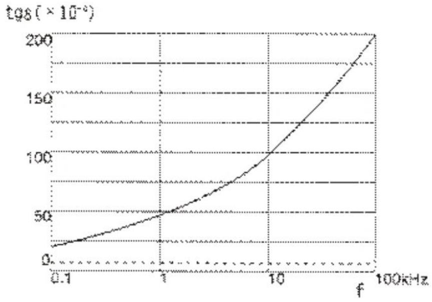

Capacitance vs. temperature at 1kHz



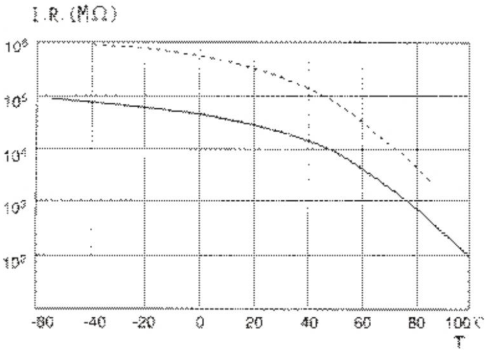

Capacitance vs.frequency (Room temperature)



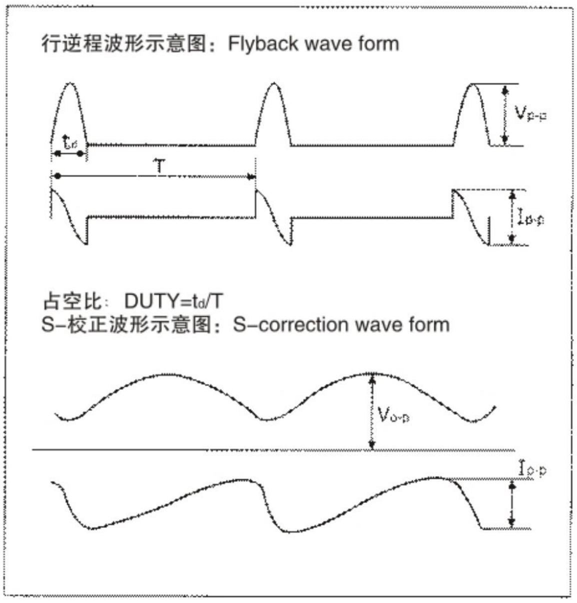

Dissipation factor vs. temperature at 1kHz




Dissipation factor vs. frequency (Room temperature)




Dissipation factor vs.temperature at 1kHz




················ 聚丙烯薄膜（Polypropylene Film）

———————— 聚酯薄膜（Polyester Film）

## 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）、电容量等因素的影响。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。CL21X电容不适用用于交流场合。

### 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×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。

在高频或高脉冲条件下使用的电容器，我们推荐聚丙烯膜电容器或CL23盒式电容器。

当实际工作电流波形与给出的波形不同时，一般情况下聚酯膜电容器在自身温升为10℃或更小的情况下使用，聚丙烯膜在自身温升为5℃或更小的情况下使用，电容器表面温度不许超过额定上限温度。

### 3、各种波形的有效值换算关系

不同波形有效值按下面的公式计算。

## 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). CL21X series isn't suitable for AC applications.

### 2.Operation Current

The pulse (or AC) current flowing through the capacitor is expressed as: I=C×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 couse deterioration of with standing 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.

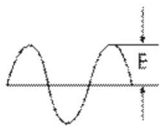
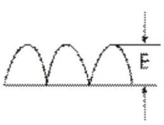
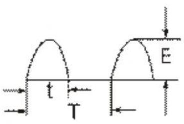
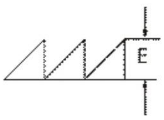
The rated current must be considered by dividing into pulse current(peak current)and continuous current(rms current)depending on the break down mode,and when using, should make sure the both currents are within the permissible values.

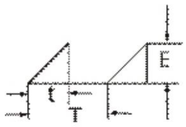
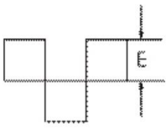
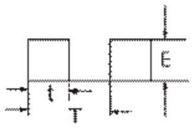
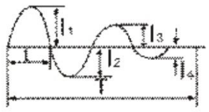
Under the application of high frequency or high pulse,we recommend to use the polypropylene film capacitor or CL23 capacitor.

When the actual operating current waveform differs from the given waveform in the catalogus, In general, the polyester film capacitor will be used within inberent temperature rise of 10℃ or less, the polypropylene film capacitor will be used within inherent temperature rise of 5℃ or less,and the capacitor surface temperature will not exceed the rated upper rated temperature.

### 3.Calculation of rms in various waveforms

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

| 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 | $E/\sqrt{t/T}$ | $\sqrt{\frac{t}{2T}(I_1^2+I_2^2+I_3^2+I_4^2)}$ |

4、抑制电源电磁干扰用电容器

4.1 当在电源跨线电路中使用电容器来消除噪音时，不仅仅只有正常电压，还会有异常脉冲电压（如闪电）发生，这可能会导致电容器冒烟或者起火。所以，跨线电容器其安全标准在不同国家有严格规定，请使用经过安全认证的电容器。

不允许将直流电容器用作跨线电容器。

4.2 X类抑制电源电磁干扰用电容器

适用于在电容器失效时不会导致电击危险的场合， 分 为X1、X2 ( 参见下表）

4.Capacitor for electromagnetic interference suppression of AC power supply

4.1 When using a capacitor across–the–line as means for prevention of noise, not only the supply voltage is always applied,but also abnormal surge such as lighting is applied, which may lead to smoking or firing. Therefore, the across–the–line capacitor is strictly regulated in safety standard in each country. Please use those approved products, which conform to corresponding safety standards of different countries. The DC capacitor will not be used in across–in–line circuit.

4.2 Capacitor for electromagnetic interference suppression of AC power supply (Class X)

It is suitable for being used in situation where failure of the capacitor could not lead to danger of electric shock, classified as class X1, X2(refer to the table below).

| 类别(Class) | 使用时的峰值脉冲电压Kv<br>Peak pulse voltage<br>in service(KV) | 应用<br>Application | 耐久性实验前施加的峰值脉冲电压UP(KV)<br>Peak impulse voltage Up before endurance tesk(KV) |
|---|---|---|---|
| X1 | >2.5, ≤4.0 | 高脉冲应用<br>High pulse Application | $C_R \leq 1.0\mu F$, 4.0<br>$C_R > 1.0\mu F$, $4/\sqrt{C_R}$ |
| X2 | ≤2.5 | 一般用途<br>General purpose | $C_R \leq 1.0\mu F$, 2.5<br>$C_R > 1.0\mu F$, $2.5/\sqrt{C_R}$ |

### 5、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长速率的乘积，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20Ω/V-1000Ω/V或更高的限流电阻，将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200Ω/V-1000Ω/V或更高的限流电阻。详见电容器标准。

### 5.Charging and discharging

Becouse 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 though a resistance of 20Ω/V to 1000Ω/v or more to limit current.

When connecting multiple film capacitors in parallel in withstand voltage tst or life test, connect a resistance of 20Ω/V to 1000Ω/V or more in series to each capacitor. (For detail see the specification)

### 6、阻燃性

尽管在薄膜电容器外封装中使用了耐火性阻燃材料—阻燃环氧树脂或塑壳，但外部的持续高温或火焰仍可使电容器芯子变形而产生外封装破裂，导致电容器芯子熔化或燃烧。

### 6. Flame retardation

Although flame retardation epoxy resin or plastic case is used in the coating or encapsulating of plastic film capacitor, continuous outer high temperature or firing will break the coating layer or plastic case of capacitor, and may lead to melting and firing of the capacitor element.

### 7、表面温长(△T)

7.1 当电容器用于交流及脉冲场合时，流经电容器的电流使其发势，如果发热量过大，会导致电容器短路甚至燃烧，所以流经电容器的电流不能超过产品目录所规定的最大数值及电容器在加载时监测温升就显得尤为必要。

7.2 测量电容器表面温升的方法如图1，被测试电容器必须施加工作交流、脉冲电压及工作频率。

### 7.Surface overtemperature(△T)

7.1 When capacitor is used in A.C. or pulse applications the current that flows through the capacitor makes it heat up. If the capacitor heats up too much it might deteriorate causing a short circuit or fire. It is essential that the limits described in the catalogue are not exceeded and that a temperature check on the capacitor is made whenever it is under load.

7.2 Method for determining the surface overtemperature of the capacitor is showed in fig. 1. The capacitor being tested must be supplied by the working AC or pulse voltage and frequency.

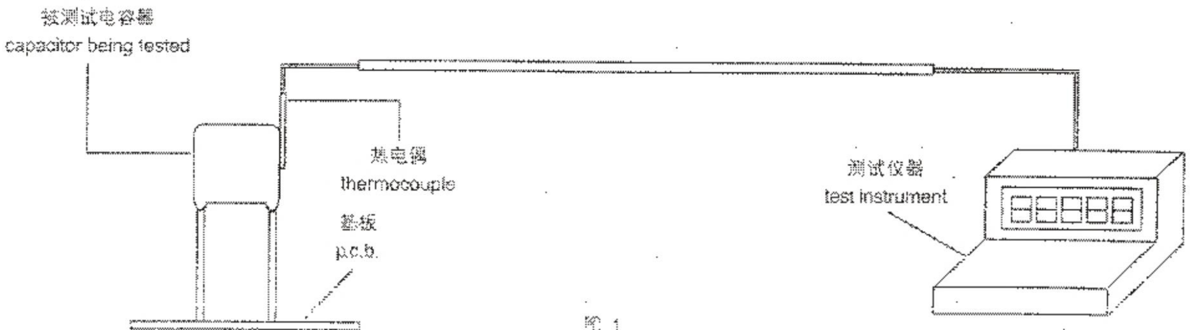



图 1
Fig. 1

8、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相反电极库仑力的作用，产生的振动而发出的声音，通过电容器的电压波形和频率畸变越严重，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。

8. Buzzing noise caused by the vibratlon of film

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 voltage or frequency is applied accorss the capacitor , the buzzing noise will become louder. But the buzzing noise is of no damage to capacitor.

9、储存环境要求

1、由于大气中存在氢氯化物、氢硫化物、硫酸物质等，所以产品储存在大气中，必须注意引出端的可焊性会变差。

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:不超过35℃

湿度：不超过80%RH

引线式产品储存时间(从产品包装的日期算起):

对于散装产品，不超过24个月。

对于径编产品，不超过12个月。

9. Storage conditions:

1. It must be noted that the solderability of the terminals may be deteriorated when stored in on atmosphere filled with moisture, dust , or a reactive oxidizing gas. (hydrogen chloride, hydrogen sulfid, sulfuric acid, etc.)

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

Temperature:not exceeding 35℃

Humidity:not exceeding 80% RH

Storage time for tinned lead wire(form the date marked the label glued to the package):

Bulk:≤24 months

Taping:≤12 months

■ROHS符合性

在此产品目录中的高强公司的产品均符合ROHS和REACH指令的环保要求和《电子信息产品污染控制管理办法》。

■ROHS Compliance

Gaoqiang products in the catalogue are ROHS and REACH Compliant.

六、在订购或索要样品之前，请尽可能多地提供以下信息：

1.额定工作电压：DC,AC；

2.电容量及电容量允许偏差：J、K、M等；

3.最终产品种类：彩色电视机、显示器、开关电源，电子节能灯、振流器、交频器、ADSL、UPS等等；

4.用途或电路图：直流回路、交流脉冲回路(S校正电路、行逆程电路、尖峰吸收回路)，电源跨线噪音抑制电路、高稳定性电路、DC－link、DC－filiter降压、PFC等等；

5.使用条件：脉冲峰值，频率，波形，电流等等；

6.使用温度；

7.外形尺寸：电容器本性尺寸，引出线尺寸等等；

8.形状：包封形式(浸渍型、盒式等)，引出线(直脚、成型、编带等等)；

9.安全性：当电容器短路或开路时对其它部件的影响，当其它部件或电路工作异常时对电容器的影响。

10.焊接条件：引线式；

11.安装方式：PCB板、螺栓式、绝缘引线等。

六 、 When placing on order or inquiring sample, please specify the following , as much as you can.

1.Roted voltage:DC,AC.

2.Capacitance value and capacitance tolerance:J,K,M etc.

3.Finished product:Color TV, Monitor, Switching power, light, ballast , transducer, ADSL, UPS etc.

4.Application or circuit diagram:DC circuit, AC pulse circuit (S-shape correction, horizontal resonance circuit, peak absorption circuit), in terface noise suppression circuit, high stability circuit DC-link, DC-filter, PFC etc.

5.Condition of operation:pulse peak, frequency,waveform, current etc.

6.Operating temperature.

7.Dimensions:body, lead space,elc.

8.Shape:enclosure(dip,case,etc),lead wire(straight, crimped, taping etc).

9.Safety:Influence to the other component, when the capacitor gets short-circuited or open. Influence to the capacitor, when the other component or the circuit works irregularly.

10.Welding condition:tinned-lead-wire type.

11.Fixed style:PCB,bolt,insulated lead wire etc.

## 七、产品的包装方式 Packing for capacitors

### 1.塑料外壳电容器径向编带说明 Taping specification for box-type capacitor

■外形图 Outline Drawing

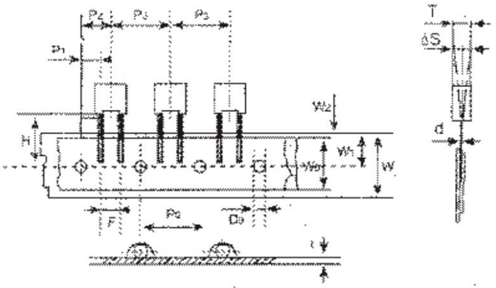



图1 Fig.1 引出线间距P=5.0、7.5mm

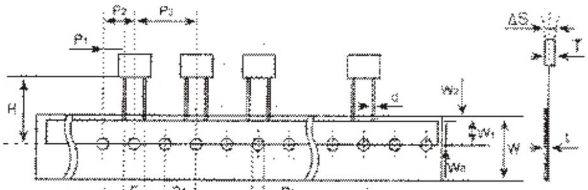



图2 Fig.2 引出线间距P=10.0、15.0mm

■编带尺寸表Taping Dimensions(mm)

| 技术指标名称 | 代号 | 尺寸 | | | | |
|---|---|---|---|---|---|---|
| | | P=5.0 | P=7.5 | P = 10.0 | P = 15.0 | 误差 |
| 编带类型 Taping type | | 图1 Fig 1 | 图1 Fig 1 | 图2 Fig 2 | 图2 Fig 2 | |
| 电容器间距 Space between two caps | $P_3$ | 12.7 | 12.7 | 25.4 | 25.4 | ± 1.0 |
| 送带孔距 Space between two holes | $P_0$ | 12.7 | 12.7 | 12.7or15.0 | 12.7 | ± 0.2 |
| 引出线位置 Position of lead | $P_1$ | 3.85 | 2.6 | 7.7 | 5.2 | ± 0.7 |
| 电容器本体位置 Position of capacitor body | $P_2$ | 6.35 | 6.35 | 12.7 | 12.7 | ± 1.3 |
| 引出线间距Pitch | F** | 5.0 | 7.5 | 10.0 | 15.0 | ± 0.6 − 0.1 |
| 电容器侧面倾斜 Slope of capacitor side | △S | 0 | 0 | 0 | 0 | ± 2.0 |
| 电容器底部至带孔中心距离 the bottom of capacitor body to the center of hole | H*** | 18.5 | 18.5 | 18.5 | 18.5 | ± 0.5 |
| 纸带宽度 Width of paper tape | W | 18.0 | 18.0 | 18.0 | 18.0 | +1.0 −0.5 |
| 胶带纸宽度Width of sticky tape | $W_0$ | 6min | 12min | 12min | 12min | |
| 送带孔位置Position of hole | $W_1$ | 9.0 | 9.0 | 9.0 | 9.0 | |
| 胶带纸位置Position of sticky tape | $W_2$ | 1.5max | 1.5max | 1.5max | 1.5max | |
| 送带孔直径Dia of hole | D0 | 4.0 | 4.0 | 4.0 | 4.0 | ± 0.2 |
| 编带总厚度 total width | t | 0.7 | 0.7 | 0.7 | 0.9 | ± 0.2 |

■包装数量Packaging Quantity

| Pitch (mm) | Box thinkness T(mm) | Ammo–Pack(pcs/Box) | |
|---|---|---|---|
| | | Demestic | Export |
| 5.0 | 3.5 | 1700 | 1500 |
| | 4.5 | 1400 | 1300 |
| | 5.0 | 1200 | 1000 |
| | 6.0 | 1000 | 800 |
| 7.5 | 3.5 | 1700 | 1500 |
| | 4.0 | 1500 | 1300 |
| | 5.0 | 1200 | 1000 |
| | 6.0 | 1000 | 800 |
| 10.0/ 15.0 | 4.0 | 750 | 650 |
| | 5.0 | 600 | 500 |
| | 6.0 | 500 | 450 |
| 15.0 | 7.5 | 400 | 350 |
| | 8.5 | 350 | 300 |
| | 10.0 | 300 | 250 |
| | 11.0 | 250 | 200 |

Note: *P0=15.0mm is also available
**F can be other lead space;
*** H=16.5mm is avaitable;

*P0=15.0mm是可行的
**F可以是其他间距;
*** H=16.5mm 是可行的;

2.浸渍型电容器径向编带说明Taping for dipped–type capacitor

### ■外形图 Outline Drawing

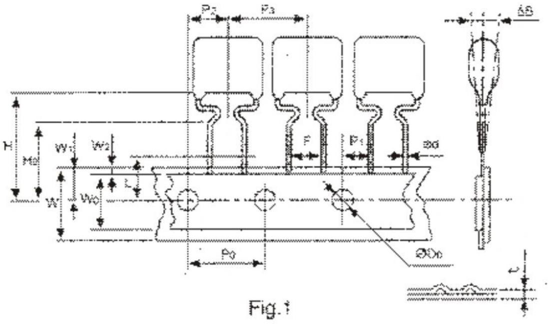


Fig.1

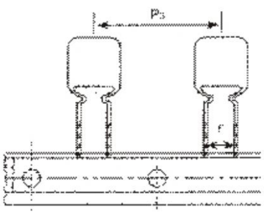


Fig.2

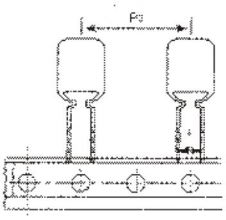


Fig.3

### ■编带尺寸表Taping Dimensions(mm)

| 技术指标名称 | 代号 | 尺寸 | | | | |
|---|---|---|---|---|---|---|
| | | P=5.0 | P=7.5 | P = 10.0 | P = 15.0 | 误差 |
| 编带类型 Taping type | | Fig 1 | Fig 1 | Fig 1 or Fig 2 | Fig 3 | |
| 电容器间距 Space between two caps | $P_3$ | 12.7 | 12.7 | 12.7or15.0 | 25.4 | ± 1.0 |
| 送带孔距 Space betwwen two holes | $P_0$ | 12.7 | 12.7 | 12.7or15.0 | 12.7 | ± 0.3 |
| 引出线位置 Position of lead | $P_1$ | 3.85 | 2.60 | 5.0 | 5.2 | ± 0.7 |
| 电容器本体位置 Position of capacitor body | $P_2$ | 6.35 | 6.35 | --- | 12.7 | ± 1.3 |
| 成形间距 Space between kinked leads | F** | 5.0 | 7.5 | 10.0 | 15.0 | ± 0.8 / – 0.2 |
| 电容器侧面倾斜 Slope of capacitor side | △S | 0 | 0 | 0 | 0 | ± 1.0 |
| 电容器高度 height of cap | H*** | 20.0 | 20.0 | 20.0 | 20.0 | ± 0.5 |
| 弯脚高度 kinked lead height | $H_0$ | 16.0 | 16.0 | 16.0 | 16.0 | +1.0 |
| 纸带宽度 Width of paper tape | W | 18 | 18.0 | 18.0 | 18.0 | –0.5 |
| 胶带纸宽度Width of sticky tape | $W_0$ | 13 | 13 | 13 | 13 | ± 0.5 |
| 送带孔位置 Position of hole | $W_1$ | 9.0 | 9.0 | 9.0 | 9.0 | ± 0.75 / –0.5 |
| 胶带纸位置 Position of sticky tape | $W_2$ | ≤3 | ≤3 | ≤3 | ≤3 | |
| 送带孔直径Dia of hole | $D_0$ | 4.0 | 4.0 | 4.0 | 4.0 | ± 0.3 |
| 编带总厚度 total width | t | 0.7 | 0.7 | 0.7 | 0.7 | ± 0.2 |

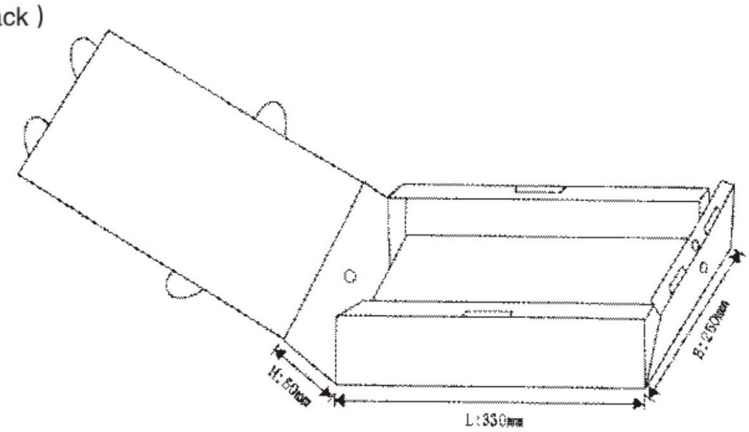
Note:*P0=15.0mm is also available

*P0=15.0mm是可行的

**F can be other lead space;

**F可以是其他间距;

3.径向编带内包装箱尺寸
( Inner packaging box size for Ammo–pack )



## 八、产品编码说明Part number system

■16位产品代码如下：

The 16digits part number is formed as follow:

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| c | | | | | | | | | | | | | | | |

第1~2位　薄膜电容器系列代码 code of film capacitor

第3~4位　额定电压（参见table2） rated voltage

第5~7位　标称容量（按照JIS标准）nominal capacitance (refer to JIS standard)

103=$10\times10^3$PF=0.01μF

第8位　容量偏差 capacitance tolerance

J=±5%,K=±10%

J当K产品 use J as K

K当J产品 use K as J

第9~10位　引线间距（参见table 2）pitch (refer to table2)

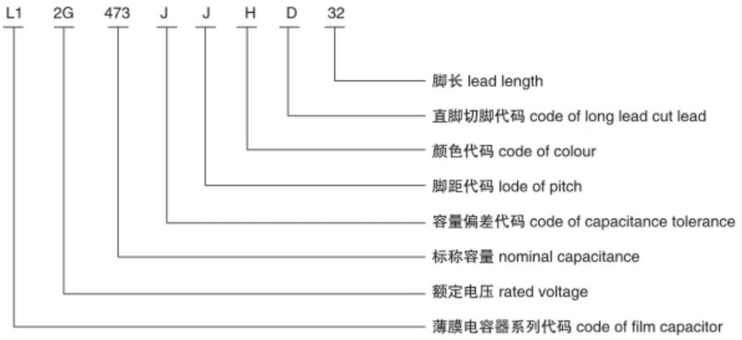
第11位　颜色colour

第12~14位　引线状态（长脚、切脚和编带）lead (long lead, cut ￡ taping)

第15位　包封状态（环氧包封或粉末包封）coating(epoxy resin or power coating)

第16位　体积代码 code of volume

■例如for example



# 薄膜电容器简介

## FILM CAPACITORS GENERAL INFORMATION

### Table1容量偏差代码capacitance tolerance code

| 容量偏差 Capacitance tolerance | 代码Code | 容量偏差 Capacitance tolerance | 代码Code | 容量偏差 Capacitance tolerance | 代码Code | 容量偏差 Capacitance tolerance | 代码Code |
|---|---|---|---|---|---|---|---|
| J级 | J | K级 | K | J当K use J as K | C | K当J use K as J | Y |

### Table2编带、切脚分类taping ￡ cut lead

| 编带类型 Taping type | 代码Code | 编带类型 Taping type | 代码Code | 切脚类型 Cut type | 代码Code | 切脚类型 Cut type | 代码Code |
|---|---|---|---|---|---|---|---|
| 成型编带 Kinked ￡ taping | T0 | 直脚编带 Taping | T1 | 成型切脚 Kinked ￡ cut | D | 直脚切脚 Cut | d |

### Table 3 颜色及包封方式分类colour ￡ ways of coating

| 颜色Colour | | | 包封方式 Ways of coating | |
|---|---|---|---|---|
| 红Red | 蓝Blue | 绿Green | 粉末包封 Power | 环氧包封 Epoxy resin |
| H | L | | F | |

### Table4体积代码code of Volume

| 体积类型 Volume type | 小体积 Small volume | 中体积 Mediam volume | 大体积 Big volume | 大大体积 Super big volume |
|---|---|---|---|---|
| 代码Code | S1 | S2 | S3 | S4 |

### Table 5 产品系列代码 Series code

| 型号Type | 代码Code | 型号Type | 代码Code | 型号Type | 代码Code | 型号Type | 代码Code |
|---|---|---|---|---|---|---|---|
| CL11 | L1 | CBB11 | B1 | CBB21 | B5 | MKPX1 | B11 |
| CL21 | L2 | CBB22 | B2 | CBB62 | B7 | CL21A | L7 |
| CL21X | L3 | CH11 | H1 | CBB81A | B8 | CBB22/21A | B12 |
| CL18 | L4 | CBB18/13 | B3 | CBB81 | B9 | CH21 | H2 |
| CL23 | L5 | CBB28 | B4 | MKPX2 | B10 | | |

### Table 6 额定电压代码Rated voltage code

| 电压Voltage | 代码Code | 电压Voltage | 代码Code | 电压Voltage | 代码Code | 电压Voltage | 代码Code |
|---|---|---|---|---|---|---|---|
| 50V | 1H | 250V | 2E | 630V | 2J | 1500V | 3T |
| 63V | 1J | 400V | 2G | 800V | 2K | 1600V | 3C |
| 100V | 2A | 500V | 2H | 1000V | 3A | 2000V | 3D |
| 160V | 2C | 600V | 2X | 1200~1250V | 3B | 2500V | 3E |
| 200V | 2D | | | | | | |

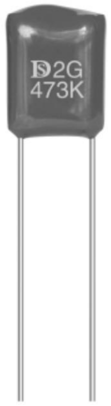
### Table 7 脚距代码Picth code

| 脚距Picth | 代码Code | 脚距Pitch | 代码Code | 脚距Pitch | 代码Code | 脚距Pitch | 代码Code |
|---|---|---|---|---|---|---|---|
| 2.5 | A | 6 | G | 10 | M | 19 | X |
| 3.5 | B | 6.5 | H | 11 | N | 20 | Y |
| 4 | C | 7 | I | 12 | P | 21 | T |
| 4.5 | D | 7.5 | J | 13 | Q | 22 | Z |
| 5 | E | 8 | K | 15 | R | 26 | U |
| 5.5 | F | 8.5 | L | 16 | S | 29 | V |
| 31 | W | | | | | | |

# CL11型聚酯膜介质直流固定电容器

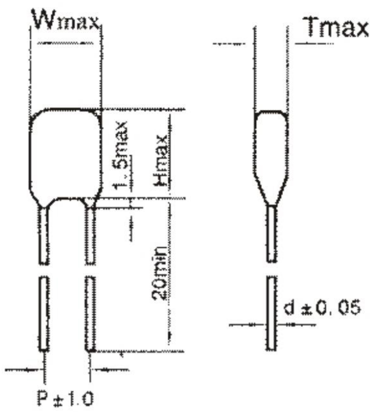
## CL11 POLYESTER FILM CAPACITOR

- 结构：聚酯膜作介质，有感结构，环氧树脂包封。
- 特点：具有更好的绝缘性，耐热性。损耗低，体积小，容量稳定性好。
- 用途：广泛用于各种节能灯、镇流器、仪器和通讯设备的直流及脉动电路中。
- 非标和特殊规格按用户要求生产。




- Structure:Polyester film used as dielectric, inductive construction, epoxy resin dip sealed.
- Features:Excellent insulation and heat proof, small size, low disspation good reliabiity of capacitance.
- Application:Extensively apply to DC and pulse circuits of broadcasting and TV sets, all kinds of instruments and communication equipments and energy-saving lamps and electronic lighting ballasts.
- According to user's need, capacitor of nostandard and special specification can be produced.

### ■外形图Outline Drawing




### ■主要技术参数 Main Technical Specifications

| 项目 Items | 性能要求 Characterstics |
|---|---|
| 标准 Standard | GB/T6346(IEC60384-11)<br>(SJ/T 10786) |
| 气候类别 Climatic Category | 55/105/21 |
| 额定温度 Rated Temperature | 85℃ |
| 工作温度范围<br>Operating Temperature Range | -55℃~+105℃(+85℃ to +105℃:decreasing factor 1.25% per℃ for $V_R$(dc)) |
| 额定电压 Rated Voltage | 63V、160V、250V、400V、630V、1000V、1200V、1500V/1600V |
| 电容量范围 Capacitance Range | 0.001μF~0.47μF |
| 电容量偏差<br>Capacitance Tolerance | ±5%(J)；±10%(K)；±20%(M) |
| 耐电压 Voltage Proof | $2.0U_R$<br>(1~5S) |
| 绝缘电阻 Insulation Resistance | ≥30000MΩ<br>(20℃,1min) |
| 损耗角正切 Dissipation Factor | ≤0.01(20℃,1kHz) |

# CL11型聚酯膜介质直流固定电容器



## CL11 POLYESTER FILM CAPACITOR

■外形尺寸 Dimensions(mm)

| $C_R$ (μF) | 100V/160V | | | | 250V | | | | 400V | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | W | H | T | P | W | H | T | P | W | H | T | P |
| 0.001 | 5.8 | 10.0 | 3.5 | 3.5 | 7.0 | 11.0 | 4.0 | 3.5 | 8.0 | 12.0 | 4.0 | 3.5 |
| 0.0012 | 5.8 | 10.0 | 3.5 | 3.5 | 7.0 | 11.0 | 4.0 | 3.5 | 8.0 | 12.0 | 4.0 | 3.5 |
| 0.0015 | 5.8 | 10.0 | 3.5 | 3.5 | 7.0 | 11.0 | 4.0 | 3.5 | 8.0 | 12.0 | 4.0 | 3.5 |
| 0.0018 | 5.8 | 10.0 | 3.5 | 3.5 | 7.0 | 11.0 | 4.0 | 3.5 | 8.0 | 12.0 | 4.0 | 3.5 |
| 0.0022 | 5.8 | 10.0 | 3.5 | 3.5 | 7.0 | 11.0 | 4.0 | 3.5 | 9.0 | 12.0 | 5.0 | 3.5 |
| 0.0027 | 5.8 | 10.0 | 3.5 | 4.0 | 7.0 | 11.0 | 4.0 | 4.0 | 9.0 | 12.0 | 5.0 | 4.0 |
| 0.0033 | 5.8 | 10.0 | 3.5 | 4.0 | 7.0 | 11.0 | 4.0 | 4.0 | 9.0 | 12.0 | 5.0 | 4.0 |
| 0.0039 | 5.8 | 10.0 | 3.5 | 4.0 | 7.0 | 11.0 | 4.0 | 4.0 | 9.0 | 12.0 | 5.0 | 4.0 |
| 0.0047 | 5.8 | 10.0 | 3.5 | 4.0 | 7.0 | 11.0 | 4.0 | 4.0 | 9.0 | 12.0 | 6.0 | 5.0 |
| 0.0056 | 6.0 | 10.0 | 3.5 | 4.0 | 7.0 | 11.0 | 4.0 | 4.0 | 10.0 | 12.0 | 6.0 | 5.0 |
| 0.0068 | 6.0 | 10.0 | 3.5 | 4.0 | 7.0 | 11.0 | 4.0 | 4.0 | 10.0 | 12.0 | 6.0 | 5.0 |
| 0.0082 | 6.5 | 10.0 | 4.0 | 4.0 | 7.0 | 11.0 | 4.5 | 4.0 | 10.0 | 12.0 | 6.0 | 5.0 |
| 0.01 | 6.5 | 10.0 | 4.0 | 4.0 | 7.0 | 11.0 | 4.5 | 4.0 | 10.0 | 14.0 | 6.0 | 6.5 |
| 0.012 | 6.5 | 11.0 | 4.0 | 3.5 | 7.0 | 11.0 | 4.5 | 4.0 | 10.0 | 14.0 | 6.0 | 7.0 |
| 0.015 | 7.0 | 12.0 | 4.0 | 4.0 | 9.0 | 13.0 | 5.0 | 5.0 | 10.0 | 14.0 | 6.0 | 7.5 |
| 0.018 | 7.0 | 12.0 | 4.0 | 4.0 | 9.0 | 13.0 | 5.0 | 5.0 | 10.0 | 14.0 | 6.0 | 7.5 |
| 0.022 | 7.5 | 13.0 | 3.5 | 4.5 | 9.0 | 13.0 | 5.0 | 5.0 | 10.0 | 14.0 | 6.0 | 7.5 |
| 0.027 | 7.8 | 13.0 | 4.5 | 4.5 | 9.0 | 13.0 | 5.5 | 5.0 | 11.0 | 14.0 | 6.0 | 7.5 |
| 0.033 | 8.0 | 13.0 | 4.6 | 5.5 | 9.0 | 13.0 | 5.5 | 7.5 | 12.0 | 14.0 | 7.0 | 7.5 |
| 0.039 | 9.0 | 13.0 | 5.5 | 5.5 | 11.0 | 14.0 | 6.0 | 7.5 | 12.0 | 16.0 | 7.0 | 8.5 |
| 0.047 | 9.3 | 13.0 | 5.0 | 6.5 | 11.0 | 14.0 | 6.0 | 7.5 | 13.0 | 16.0 | 8.0 | 8.5 |
| 0.056 | 9.7 | 13.0 | 5.0 | 6.5 | 11.0 | 14.0 | 7.0 | 7.5 | 14.0 | 16.0 | 9.0 | 8.5 |
| 0.068 | 10.0 | 13.0 | 5.5 | 6.5 | 12.0 | 14.0 | 7.0 | 7.5 | 15.0 | 17.0 | 10.0 | 8.5 |
| 0.082 | 10.5 | 13.0 | 6.0 | 7.0 | 13.0 | 15.0 | 8.0 | 7.5 | 15.0 | 20.0 | 11.0 | 8.5 |
| 0.1 | 11.5 | 13.0 | 6.5 | 7.0 | 14.0 | 15.0 | 8.0 | 8.5 | 15.0 | 20.0 | 12.0 | 8.5 |
| 0.12 | 12.0 | 13.0 | 7.0 | 7.0 | 14.0 | 15.0 | 8.0 | 8.5 | | | | |
| 0.15 | 12.0 | 15.0 | 7.0 | 7.0 | 15.0 | 17.0 | 8.0 | 8.5 | | | | |
| 0.18 | 12.0 | 16.0 | 7.5 | 7.0 | 16.0 | 18.0 | 9.0 | 8.5 | | | | |
| 0.22 | 13.5 | 16.0 | 8.0 | 7.0 | 18.0 | 18.0 | 10.0 | 8.5 | | | | |
| 0.027 | 14.0 | 16.0 | 8.5 | 7.0 | | | | | | | | |
| 0.33 | 15.5 | 19.0 | 8.5 | 7.0 | | | | | | | | |
| 0.39 | 16.0 | 20.0 | 9.0 | 7.0 | | | | | | | | |
| 0.47 | 18.0 | 21.0 | 10.0 | 7.0 | | | | | | | | |

# CL11型聚酯膜介质直流固定电容器

## CL11 POLYESTER FILM CAPACITOR

■外形尺寸 Dimensions(mm)

| $C_R$ (μF) | 630V | | | | 1000V | | | | 1200V | | | | 1500V/1600V | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | W | H | T | P | W | H | T | P | W | H | T | P | W | H | T | P |
| 0.0010 | 6.5 | 11.5 | 4.0 | 4.0 | 7.0 | 12.0 | 4.0 | 5.0 | 7.5 | 13.0 | 5.5 | 5.0 | 8.5 | 13.5 | 4.5 | 5.0 |
| 0.0012 | 7.0 | 11.5 | 4.0 | 4.0 | 7.5 | 12.0 | 4.0 | 5.0 | 7.5 | 13.0 | 5.5 | 5.0 | 8.5 | 13.5 | 4.5 | 5.0 |
| 0.0015 | 7.0 | 11.5 | 4.0 | 4.0 | 7.5 | 12.0 | 4.0 | 5.0 | 7.5 | 13.0 | 5.5 | 5.0 | 8.5 | 14.0 | 5.0 | 5.0 |
| 0.0018 | 7.0 | 11.5 | 4.0 | 4.5 | 8.0 | 12.5 | 4.5 | 5.0 | 7.5 | 14.0 | 6.5 | 5.0 | 8.5 | 15.0 | 6.0 | 5.0 |
| 0.0022 | 7.5 | 11.5 | 4.5 | 4.5 | 8.5 | 13.0 | 4.5 | 5.0 | 8.5 | 14.5 | 5.0 | 5.0 | 9.5 | 15.5 | 5.5 | 5.0 |
| 0.0027 | 8.0 | 12.0 | 5.0 | 4.5 | 8.5 | 13.0 | 4.5 | 5.0 | 8.5 | 14.5 | 5.0 | 5.0 | 10.0 | 16.0 | 6.0 | 5.0 |
| 0.0033 | 8.0 | 12.0 | 5.0 | 5.0 | 9.5 | 13.0 | 5.5 | 5.0 | 8.0 | 14.5 | 5.5 | 5.0 | 10.0 | 16.0 | 6.0 | 5.0 |
| 0.0039 | 8.5 | 12.0 | 5.5 | 5.0 | 10.0 | 13.5 | 5.5 | 5.0 | 8.5 | 15.0 | 5.5 | 5.0 | 10.0 | 17.0 | 6.5 | 5.0 |
| 0.0047 | 8.5 | 13.5 | 5.0 | 5.0 | 10.5 | 14.5 | 6.5 | 5.0 | 9.0 | 15.0 | 5.5 | 5.0 | 10.0 | 17.0 | 7.0 | 5.0 |
| 0.0056 | 9.0 | 13.5 | 5.5 | 5.0 | 10.5 | 14.5 | 6.0 | 6.0 | 10.5 | 16.0 | 5.5 | 6.5 | 12.0 | 17.5 | 7.0 | 7.5 |
| 0.0068 | 9.5 | 14.0 | 5.0 | 5.0 | 10.5 | 15.5 | 6.0 | 6.5 | 10.5 | 16.0 | 6.5 | 6.5 | 12.5 | 17.5 | 7.0 | 7.5 |
| 0.0082 | 10.5 | 14.0 | 5.5 | 5.0 | 11.0 | 15.5 | 6.0 | 6.5 | 11.0 | 17.5 | 7.5 | 7.5 | 13.0 | 17.5 | 7.5 | 7.5 |
| 0.01 | 10.5 | 14.5 | 6.0 | 7.5 | 11.5 | 16.0 | 6.5 | 7.5 | 12.0 | 17.5 | 7.5 | 7.5 | 14.0 | 19.0 | 8.0 | 7.5 |
| 0.015 | 11.0 | 14.5 | 6.5 | 7.5 | | | | | | | | | | | | |
| 0.022 | 11.5 | 16.5 | 7.0 | 7.5 | | | | | | | | | | | | |
| 0.027 | 12.5 | 18.0 | 8.5 | 7.5 | | | | | | | | | | | | |
| 0.033 | 13.0 | 18.0 | 9.0 | 7.5 | | | | | | | | | | | | |

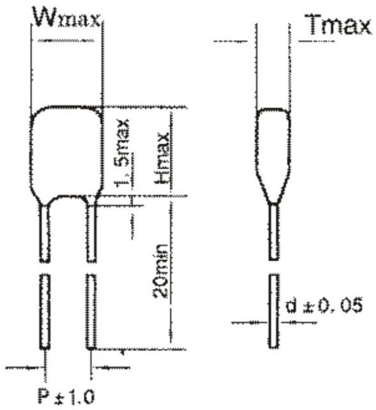
# CL11X型聚酯膜介质直流固定电容器

## CL11X POLYESTER FILM CAPACITOR

・结构：聚酯膜作介质，有感结构，环氧树脂包封。
・特点：具有更好的绝缘性，耐热性。损耗低，体积小，容量稳定性好。
・用途：广泛用于各种节能灯、镇流器、仪器和通讯设备的直流及脉动电路中。
・非标和特殊规格按用户要求生产。

・Structure:Polyester film used as dielectric, inductive construction, epoxy resin dip sealed.
・Features:Excellent insulation and heat proof, small size, low disspation good reliability of capacitance.
・Application:Extensively apply to DC and pulse circuits of broadcasting and TV sets, all kinds of instruments and communication equipments and energy-saving lamps and electronic lighting badasts.
・According to user's need, capacitor of nostandard and special specification can be produced.


## ■外形图Ooutline Drawing




## ■主要技术参数 Main Technical Specifications

| 项目 Items | 性能要求 Characterstics |
|---|---|
| 标准 Standard | GB/T6346(IEC60384-11) |
| 气候类别 Climatic Category | 55/105/21 |
| 额定温度 Rated Temperature | 85℃ |
| 工作温度范围 Operating Temperature Range | -55℃~+105℃(+85℃ to +105℃:decreasing factor 1.25% per℃ for $V_R$(dc)) |
| 额定电压 Rated Voltage | 63V、160V |
| 电容量范围 Capacitance Range | 0.001μF~0.47μF |
| 电容量偏差 Capacitance Tolerance | ±5%(J); ±10%(K); ±20%(M) |
| 耐电压 Voltage Proof | $2.0U_R$(1~5S) |
| 绝缘电阻 Insulation Resistance | ≥30000MΩ |
| 损耗角正切 Dissipation Factor | ≤0.01(1kHz)<br>≤0.015(10kHz) |

## ■小型规格尺寸Miniature Dimensions

| $C_R$ (μF) | 63/160V | | | |
|---|---|---|---|---|
| | W | H | T | P |
| 0.001~0.0056 | 5.5 | 7.5 | 3.0 | 3.0 |
| 0.0068~0.01 | 6.0 | 7.5 | 3.0 | 3.0 |
| 0.012~0.018 | 6.5 | 9.5 | 3.5 | 4.0 |
| 0.022 | 6.5 | 9.5 | 4.0 | 4.0 |
| 0.027~0.033 | 7.0 | 9.5 | 4.0 | 5.0 |
| 0.039~0.047 | 8.0 | 9.5 | 4.0 | 5.0 |
| 0.056~0.068 | 9.0 | 11.0 | 5.0 | 5.0~6.0 |
| 0.082 | 9.0 | 11.5 | 5.5 | 5.0~7.0 |
| 0.1~0.12 | 10.0 | 11.5 | 6.0 | 5.0~7.0 |
| 0.15 | 11.0 | 12.5 | 6.0 | 5.0~7.0 |
| 0.18 | 11.0 | 13.0 | 7.0 | 6.0~8.0 |
| 0.22 | 12.0 | 13.0 | 7.0 | 6.0~8.0 |
| 0.27 | 13.0 | 14.0 | 8.0 | 6.0~8.0 |
| 0.33 | 13.0 | 14.5 | 8.0 | 8.0~10.0 |
| 0.39 | 14.0 | 15.0 | 10.0 | 8.0~10.0 |
| 0.47 | 15.0 | 15.0 | 11.0 | 8.0~10.0 |

# CH11聚酯膜/聚丙烯膜复合介质电容器

## CH11 POLYESTER/POLYPROPYLENE FILM CAPACTTOR

· 结构：聚酯/聚丙膜介质，有感结构，环氧树脂包封。

· 特点：在一定温度范围内电容量温度系数小，接近于聚碳酸脂介质，高频损耗小，体积小，重量轻，绝缘电阻高，电容量稳定性好

· 用途：广泛用于各种节能灯、镇流器、电子设备的直流、脉动电路中

· 非标和特殊规格按用户要求生产。

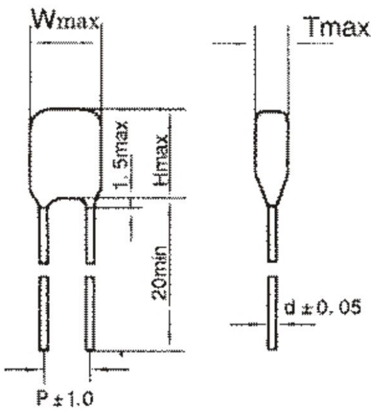

· Structure:Polyester/Polypropylene film, inductive, epoxy resin coating

· Features:Temperature coefficient of capacitance at a certain temperature range is small and similar to polycar bonate, Low loss at high frequency small size , light weight High insulation resistance, good capacitance stability.

· Application:Extensively apply to energy-saving lamps and electronic lighting ballasts timing circuit and all kinds of electronic equipments and instruments

· According to user's need, capacitor of nostandard and special specification can be produced.

### ■外形图Outline Drawing




### ■主要技术参数 Main Technical Specifications

| 项目 Items | 性能要求 Characterstics |
|---|---|
| 标准 Standard | GB6346(IEC60384-Ⅱ) |
| 气候类别 Climatic Category | 55/100/21 |
| 额定温度 Rated Temperature | 85℃ |
| 工作温度范围 Operating Temperature Range | -55℃~+105℃(+85℃ to +105℃:decreasing factor 1.25% per℃ for $V_R$(dc)) |
| 额定电压 Rated Voltage | 100V、160V、250V、400V、630V、1000V、1200V |
| 电容量范围 Capacitance Range | 0.001μF~0.1μF |
| 电容量偏差 Capacitance Tolerance | ±2%(G), ±5%(J), ±10%(K) |
| 耐电压 Voltage Proof | 2.0$U_R$(1~5s) |
| 绝缘电阻 Insulation Resistance | ≥50000MΩ(20℃,1min) |
| 损耗角正切 Dissipation Factor | ≤0.005(20℃,1kHz) |

# CH11聚酯膜/聚丙烯膜复合介质电容器

## CH11 POLYESTER/POLYPROPYLENE FILM CAPACTTOR

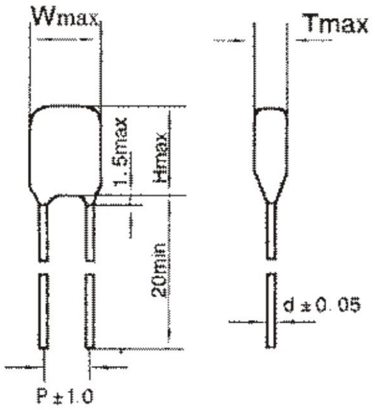
外型规格尺寸 Dimensions(mm)

| $C_R$ (μF) | 100V/160V | | | | 250V | | | | 400V | | | | 630V | | | | 1000V | | | | 1200V | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | W | H | T | P | W | H | T | P | W | H | T | P | W | H | T | P | W | H | T | P | W | H | T | P |
| 0.001 | 6.0 | 12.0 | 4.0 | 4.0 | 6.5 | 12.0 | 4.0 | 4.5 | 7.5 | 12.5 | 4.5 | 5.0 | 7.5 | 12.5 | 5.0 | 5.0 | 7.5 | 12.5 | 5.0 | 5.0 | 7.5 | 13.5 | 5.0 | 5.0 |
| 0.0012 | 6.5 | 12.0 | 4.0 | 4.0 | 6.5 | 12.0 | 4.0 | 4.5 | 7.5 | 12.5 | 4.5 | 5.0 | 7.5 | 12.5 | 5.0 | 5.0 | 7.5 | 12.5 | 5.0 | 5.0 | 7.5 | 15.0 | 5.0 | 5.0 |
| 0.0015 | 6.5 | 12.0 | 4.0 | 4.0 | 6.5 | 12.0 | 4.0 | 4.5 | 7.5 | 12.5 | 4.5 | 5.0 | 7.5 | 12.5 | 5.0 | 5.0 | 7.5 | 12.5 | 5.0 | 5.0 | 7.5 | 15.0 | 5.0 | 5.0 |
| 0.0018 | 6.5 | 12.0 | 4.0 | 4.0 | 6.5 | 12.0 | 4.0 | 4.5 | 7.5 | 12.5 | 4.5 | 5.0 | 7.5 | 12.5 | 5.0 | 5.0 | 7.5 | 12.5 | 5.0 | 5.0 | 8.0 | 16.0 | 5.0 | 5.0 |
| 0.0022 | 6.5 | 12.0 | 4.0 | 5.0 | 6.5 | 12.0 | 4.0 | 5.0 | 8.0 | 13.5 | 5.0 | 5.0 | 8.0 | 13.5 | 5.0 | 5.0 | 7.5 | 13.5 | 5.0 | 5.0 | 8.0 | 16.0 | 5.0 | 5.0 |
| 0.0027 | 6.5 | 12.0 | 4.0 | 5.0 | 6.5 | 12.0 | 4.0 | 5.0 | 8.0 | 13.5 | 5.0 | 5.0 | 8.5 | 13.5 | 6.5 | 5.0 | 9.0 | 13.5 | 6.5 | 5.0 | 8.5 | 16.5 | 5.5 | 5.0 |
| 0.0033 | 6.5 | 12.5 | 4.0 | 5.0 | 6.5 | 12.5 | 4.0 | 5.0 | 8.0 | 13.5 | 5.0 | 5.0 | 8.5 | 13.5 | 6.5 | 5.0 | 9.5 | 13.5 | 6.5 | 5.0 | 8.5 | 17.0 | 6.0 | 5.0 |
| 0.0039 | 7.0 | 12.5 | 4.5 | 5.0 | 7.0 | 12.5 | 4.0 | 5.0 | 9.5 | 14.0 | 6.5 | 5.0 | 10.0 | 14.0 | 6.5 | 5.0 | 10.0 | 14.0 | 6.5 | 5.0 | 10.5 | 17.5 | 6.5 | 5.0 |
| 0.0047 | 7.0 | 12.5 | 4.5 | 5.0 | 7.0 | 12.5 | 4.0 | 5.0 | 9.5 | 14.0 | 6.5 | 5.0 | 10.0 | 14.5 | 6.5 | 5.0 | 10.0 | 14.5 | 6.5 | 5.0 | 11.0 | 17.5 | 6.5 | 6.0 |
| 0.0056 | 7.0 | 12.5 | 4.5 | 5.5 | 7.0 | 12.5 | 4.0 | 5.5 | 9.5 | 14.0 | 6.5 | 5.5 | 10.0 | 14.5 | 7.0 | 5.0 | 10.0 | 14.5 | 7.0 | 6.5 | 11.5 | 17.5 | 6.5 | 6.5 |
| 0.0068 | 7.0 | 12.5 | 4.5 | 5.5 | 7.0 | 12.5 | 4.5 | 5.5 | 9.5 | 14.0 | 6.5 | 5.5 | 10.0 | 14.5 | 7.0 | 5.0 | 10.0 | 14.5 | 7.0 | 7.5 | 12.0 | 17.5 | 7.0 | 7.5 |
| 0.0082 | 7.5 | 12.5 | 4.5 | 6.5 | 8.0 | 12.5 | 4.5 | 6.5 | 11.0 | 16.0 | 8.0 | 6.5 | 11.0 | 16.0 | 7.0 | 5.0 | 11.0 | 16.0 | 7.5 | 7.5 | 12.0 | 17.5 | 8.0 | 7.5 |
| 0.010 | 7.5 | 12.5 | 4.5 | 6.5 | 8.0 | 15.0 | 4.5 | 6.5 | 11.0 | 16.0 | 8.0 | 6.5 | 11.0 | 16.0 | 7.0 | 6.5 | 11.0 | 16.0 | 7.5 | 7.5 | 12.0 | 17.5 | 8.0 | 7.5 |
| 0.012 | 7.5 | 13.0 | 5.0 | 6.5 | 8.0 | 15.0 | 5.5 | 6.5 | 13.0 | 16.0 | 8.0 | 7.5 | 11.0 | 16.0 | 7.0 | 6.5 | | | | | | | | |
| 0.015 | 8.5 | 13.0 | 5.0 | 6.5 | 8.5 | 15.0 | 5.5 | 6.5 | 13.0 | 16.0 | 8.0 | 7.5 | 11.0 | 16.0 | 7.5 | 6.5 | | | | | | | | |
| 0.018 | 8.5 | 13.0 | 5.0 | 6.5 | 8.5 | 15.0 | 5.5 | 6.5 | 13.0 | 17.0 | 8.5 | 7.5 | 11.0 | 16.0 | 7.5 | 7.5 | | | | | | | | |
| 0.022 | 9.5 | 14.0 | 5.5 | 6.5 | 9.5 | 15.0 | 5.5 | 6.5 | 13.0 | 17.0 | 8.5 | 7.5 | 11.0 | 16.0 | 7.5 | 7.5 | | | | | | | | |
| 0.027 | 9.5 | 14.0 | 5.5 | 6.5 | 9.5 | 15.0 | 5.5 | 6.5 | 14.5 | 17.0 | 9.5 | 8.0 | 11.5 | 17.5 | 7.5 | 7.5 | | | | | | | | |
| 0.033 | 11.0 | 14.0 | 6.5 | 7.5 | 11.0 | 15.0 | 6.5 | 7.5 | 14.5 | 17.0 | 10.0 | 8.0 | 12.0 | 17.5 | 8.0 | 7.5 | | | | | | | | |
| 0.039 | 12.0 | 14.0 | 6.5 | 7.5 | 12.0 | 16.0 | 6.5 | 7.5 | 16.0 | 22.0 | 10.0 | 8.5 | | | | | | | | | | | | |
| 0.047 | 12.0 | 14.0 | 6.5 | 8.5 | 12.0 | 16.0 | 6.5 | 8.5 | 16.0 | 22.0 | 10.0 | 8.5 | | | | | | | | | | | | |
| 0.056 | 12.0 | 16.0 | 7.5 | 8.5 | 12.0 | 16.0 | 7.5 | 8.5 | | | | | | | | | | | | | | | | |
| 0.068 | 13.0 | 16.0 | 7.5 | 8.5 | 14.0 | 18.5 | 7.5 | 8.5 | | | | | | | | | | | | | | | | |
| 0.082 | 13.0 | 18.5 | 9.0 | 8.5 | 14.0 | 18.5 | 9.0 | 8.5 | | | | | | | | | | | | | | | | |
| 0.10 | 14.0 | 20.0 | 9.0 | 8.5 | 15.0 | 20.0 | 9.0 | 8.5 | | | | | | | | | | | | | | | | |

# CBB11有感箔式聚丙烯膜电容器

## CBB11 POLYPROPYLENE FILMFOIL CAPACITOR(INDUCTIVE)

### ■外形图Outline Drawing





### ■特点

・膜箔电容器，有感卷绕，含浸

・优异的频率和温度特性

・环氧料真空包封，提高产品的机械强度、耐湿性

・非标和特殊规格按用户要求生产

### ■Features

・Film/foil capacitor, inductive wound, dipped

・Excellent frequency and temperature characteristics

・Epoxy resin vacuum–dipped enhances the mechanical strength , humidity resistance.

・According to user's need, capacitor of nostandard and special specification can be produced.

### ■主要用途

・适用于定时、振荡电路等

### ■Typical Applications

・Suitable for timing circuit and ascillator circuit, etc.

### ■技术要求Specifications

| 项目 Items | 性能要求 Characterstics |
|---|---|
| 引用标准Reference Standard | GB/T10188(IEC 60384–13) |
| 气候类别 Climatic Category | 40/100/21 |
| 额定温度 Rated Temperature | 85℃ |
| 工作温度范围 Rated Temperature Range | –40℃~+105℃(+85℃ to +105℃:decreasing factor 1.25% per℃ for $V_R$(dc)) |
| 额定电压 Rated Voltage | 100V、250V、400V、630V |
| 电容量范围 Capacitance Range | 0.0010μF~0.10μF |
| 电容量偏差 Capacitance Tolerance | ±2%(G), ±5%(J), ±10%(K) |
| 耐电压 Voltage Proof | 2.0$U_R$(1~5s) |
| 损耗角正切 Dissipation Factor | ≤$10\times10^{-4}$(1kHz,20℃) |
| 绝缘电阻 Insulation Resistance | ≥50000MΩ(20℃,1min) |

# CBB11有感箔式聚丙烯膜电容器

## CBB11 POLYPROPYLENE FILMFOIL CAPACITOR(INDUCTIVE)

| $C_R$ (μF) | 100Vdc | | | | | 250Vdc | | | | | 400Vdc | | | | | 630Vdc | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | W | H | T | P | d | W | H | T | P | d | W | H | T | P | d | W | H | T | P | d |
| 0.001 | 6.5 | 11.5 | 4.0 | 3.5 | 0.5 | 7.0 | 13.0 | 5.0 | 4.5 | 0.5 | 7.5 | 13.0 | 5.5 | 4.5 | 0.5 | 8.5 | 13.0 | 6.0 | 4.5 | 0.5 |
| 0.0012 | 6.5 | 12.0 | 4.0 | 3.5 | 0.5 | 7.0 | 13.0 | 5.0 | 4.5 | 0.5 | 7.5 | 13.0 | 5.5 | 4.5 | 0.5 | 8.5 | 13.0 | 6.0 | 4.5 | 0.5 |
| 0.0015 | 6.5 | 12.0 | 4.0 | 3.5 | 0.5 | 7.0 | 13.0 | 5.0 | 4.5 | 0.5 | 7.5 | 13.0 | 5.5 | 4.5 | 0.5 | 8.5 | 13.0 | 6.0 | 4.5 | 0.5 |
| 0.0018 | 6.5 | 12.0 | 4.0 | 3.5 | 0.5 | 7.0 | 13.0 | 5.0 | 4.5 | 0.5 | 7.5 | 13.0 | 5.5 | 4.5 | 0.5 | 8.5 | 13.0 | 6.0 | 4.5 | 0.5 |
| 0.0022 | 6.5 | 12.0 | 4.0 | 3.5 | 0.5 | 7.0 | 13.0 | 5.0 | 5.0 | 0.5 | 7.5 | 13.0 | 5.5 | 5.0 | 0.5 | 8.5 | 13.0 | 6.0 | 5.0 | 0.5 |
| 0.0027 | 6.5 | 12.0 | 4.0 | 3.5 | 0.5 | 7.0 | 13.0 | 5.0 | 5.0 | 0.5 | 7.5 | 13.0 | 5.5 | 5.0 | 0.5 | 8.5 | 13.0 | 6.0 | 5.0 | 0.5 |
| 0.0033 | 6.5 | 12.5 | 4.0 | 3.5 | 0.5 | 7.0 | 13.0 | 5.0 | 5.0 | 0.5 | 7.5 | 13.0 | 5.5 | 5.0 | 0.5 | 9.0 | 14.0 | 6.5 | 5.0 | 0.5 |
| 0.0039 | 7.0 | 12.5 | 4.5 | 4.0 | 0.5 | 7.5 | 13.5 | 5.5 | 5.0 | 0.5 | 8.0 | 13.5 | 6.0 | 5.0 | 0.5 | 9.0 | 14.0 | 6.5 | 5.0 | 0.5 |
| 0.0047 | 7.0 | 12.5 | 4.5 | 4.0 | 0.5 | 7.5 | 13.5 | 5.5 | 5.0 | 0.5 | 8.0 | 13.5 | 6.0 | 5.0 | 0.5 | 9.0 | 14.0 | 6.5 | 5.0 | 0.5 |
| 0.0056 | 7.0 | 12.5 | 4.5 | 4.0 | 0.5 | 7.5 | 13.5 | 5.5 | 5.0 | 0.5 | 8.0 | 13.5 | 6.0 | 5.0 | 0.5 | 9.5 | 15.0 | 6.5 | 6.5 | 0.5 |
| 0.0068 | 7.0 | 12.5 | 4.5 | 4.0 | 0.5 | 7.5 | 13.5 | 5.5 | 5.0 | 0.5 | 8.0 | 13.5 | 6.0 | 5.0 | 0.5 | 9.5 | 15.0 | 6.5 | 6.5 | 0.5 |
| 0.0082 | 8.0 | 12.5 | 5.0 | 4.5 | 0.5 | 8.5 | 13.5 | 5.5 | 6.5 | 0.5 | 9.0 | 13.5 | 6.0 | 6.5 | 0.5 | 9.5 | 16.5 | 6.5 | 6.5 | 0.5 |
| 0.01 | 8.0 | 12.5 | 5.0 | 4.5 | 0.5 | 8.5 | 15.5 | 5.5 | 6.5 | 0.5 | 9.0 | 15.5 | 6.0 | 6.5 | 0.5 | 10.0 | 16.5 | 7.0 | 7.5 | 0.5 |
| 0.012 | 8.0 | 13.0 | 5.0 | 4.5 | 0.5 | 8.5 | 15.5 | 5.5 | 6.5 | 0.5 | 9.0 | 15.5 | 6.0 | 6.5 | 0.5 | 10.0 | 17.0 | 7.0 | 7.5 | 0.5 |
| 0.015 | 8.0 | 12.5 | 5.0 | 5.0 | 0.5 | 9.0 | 14.5 | 6.0 | 6.5 | 0.5 | 9.5 | 14.5 | 6.5 | 6.5 | 0.5 | 10.0 | 17.0 | 7.0 | 7.5 | 0.5 |
| 0.018 | 8.0 | 12.5 | 5.0 | 5.0 | 0.5 | 9.0 | 14.5 | 6.0 | 6.5 | 0.5 | 9.5 | 14.5 | 6.5 | 6.5 | 0.5 | 10.5 | 17.5 | 7.0 | 7.5 | 0.5 |
| 0.022 | 8.0 | 12.5 | 5.0 | 5.0 | 0.5 | 10.0 | 15.5 | 6.0 | 7.5 | 0.5 | 10.5 | 15.5 | 6.5 | 7.5 | 0.5 | 12.0 | 18.5 | 7.5 | 7.5 | 0.5 |
| 0.027 | 9.0 | 13.0 | 5.5 | 5.5 | 0.5 | 10.0 | 15.5 | 6.0 | 7.5 | 0.5 | 10.5 | 15.5 | 6.5 | 7.5 | 0.5 | 12.0 | 19.0 | 7.5 | 7.5 | 0.5 |
| 0.033 | 9.0 | 13.0 | 5.5 | 5.5 | 0.5 | 11.5 | 15.5 | 7.0 | 7.5 | 0.5 | 12.0 | 15.5 | 7.5 | 7.5 | 0.5 | | | | | |
| 0.039 | 10.0 | 14.0 | 6.0 | 6.0 | 0.5 | 12.5 | 16.5 | 7.0 | 7.5 | 0.5 | 13.0 | 16.5 | 7.5 | 7.5 | 0.5 | | | | | |
| 0.047 | 10.0 | 14.0 | 6.0 | 6.5 | 0.5 | 12.5 | 16.5 | 7.0 | 7.5 | 0.5 | 13.0 | 16.5 | 7.5 | 7.5 | 0.5 | | | | | |
| 0.056 | 11.0 | 14.0 | 6.5 | 7.0 | 0.5 | | | | | | | | | | | | | | | |
| 0.068 | 11.5 | 16.0 | 6.5 | 7.0 | 0.5 | | | | | | | | | | | | | | | |
| 0.082 | 12.0 | 16.0 | 7.5 | 8.0 | 0.5 | | | | | | | | | | | | | | | |
| 0.1 | 12.0 | 16.0 | 7.5 | 8.0 | 0.5 | | | | | | | | | | | | | | | |

# CL21(A)型金属化聚酯薄膜电容器



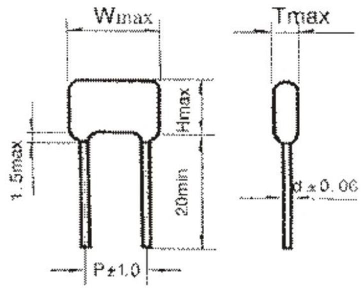
## CL21(A) METALLIZED POLYESTER FILM CAPACITOR

### ■主要技术参数 Main Technical Specifications

<table>
<tr><th>项目<br>Items</th><th colspan="4">性能要求 Characterstics</th></tr>
<tr><td>标准<br>Standard</td><td colspan="4">GB/T7332(IEC60384-2)</td></tr>
<tr><td>气候类别<br>Climatic Category</td><td colspan="4">55/105/21</td></tr>
<tr><td>额定温度<br>Rated Temperature</td><td colspan="4">85℃</td></tr>
<tr><td>工作温度范围 Operating<br>Temperature Range</td><td colspan="4">-55℃~+105℃(+85℃ to +105℃:<br>decreasing factor 1.25% per℃ for $V_R$(dc))</td></tr>
<tr><td>额定电压<br>Rated Voltage</td><td colspan="4">100VDC、250VDC、400VDC、630VDC、<br>1000VDC、1250VDC、1600VDC</td></tr>
<tr><td>电容量范围<br>Capacitance Range</td><td colspan="4">0.0033μF~6.8μF</td></tr>
<tr><td>容量允许偏差<br>Capacitance Tolerance</td><td colspan="4">±5%(J), ±10%(K), ±20%(M)</td></tr>
<tr><td>耐电压<br>Voltage Proof</td><td colspan="4">2.0$U_R$(1~5S)</td></tr>
<tr><td rowspan="3">绝缘电阻<br>Insulation Resistance</td><td colspan="2">CR>0.33μF</td><td colspan="2">CR≤0.33μF</td></tr>
<tr><td>UR>100V</td><td>UR≤100V</td><td>UR>100V</td><td>UR≤100V</td></tr>
<tr><td>2500S</td><td>1250S</td><td>15000MΩ</td><td>7500MΩ</td></tr>
<tr><td>损耗角正切<br>Dissipation Factor</td><td colspan="4">≤0.01(1kHz)<br>≤0.014(10kHz)</td></tr>
</table>


・特点：具有体积小、重量轻、容量范围宽等特点，其自愈性能好、寿命长、有优良的电性能，采用环氧树脂或环氧粉末包封。
・用途：适用于直流和脉动电路中
・非标和特殊规格按用户要求生产
・Features:Excellent small size, light weight, wide capacitance range, good self-healing property, long life and excellent preformance. Flame retardant epoxy resin or powder coating.
・Application: apply to DC and pulsating circuits.
・According to user's need, capacitor of nonstandard and special specification can be produced.

### ■外形图Outline Drawing




### ■外形尺寸 Dimensions(mm)

| $C_R$ (μF) | 100Vdc | | | | | 250Vdc | | | | | 400Vdc | | | | | 630Vdc | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | W | H | T | P | d | W | H | T | P | d | W | H | P | P | d | W | H | T | P | d |
| 0.0033 | 10.5 | 7.5 | 4.5 | 7.5 | 0.6 | 10.5 | 7.5 | 4.5 | 7.5 | 0.6 | 10.5 | 7.5 | 4.5 | 7.5 | 0.6 | 10.5 | 10.0 | 5.5 | 7.5 | 0.6 |
| 0.0047 | 10.5 | 7.5 | 4.5 | 7.5 | 0.6 | 10.5 | 7.5 | 4.5 | 7.5 | 0.6 | 10.5 | 7.5 | 4.5 | 7.5 | 0.6 | 10.5 | 10.5 | 6.0 | 7.5 | 0.6 |
| 0.0068 | 10.5 | 7.5 | 4.5 | 7.5 | 0.6 | 10.5 | 7.5 | 4.5 | 7.5 | 0.6 | 10.5 | 7.5 | 4.5 | 7.5 | 0.6 | 10.5 | 10.5 | 6.0 | 7.5 | 0.6 |
| 0.01 | 10.5 | 7.5 | 4.5 | 7.5 | 0.6 | 11.5 | 11.0 | 6.0 | 7.5 | 0.6 | 11.5 | 9.0 | 5.0 | 7.5 | 0.6 | 10.5 | 10.5 | 6.0 | 7.5 | 0.6 |
| 0.015 | 10.5 | 7.5 | 4.5 | 7.5 | 0.6 | 10.5 | 7.5 | 4.5 | 7.5 | 0.6 | 11.5 | 9.0 | 5.0 | 7.5 | 0.6 | 10.5 | 9.5 | 6.5 | 7.5 | 0.6 |
| 0.022 | 10.5 | 7.5 | 5.0 | 7.5 | 0.6 | 11.5 | 11.0 | 7.0 | 7.5 | 0.6 | 11.5 | 10.0 | 6.0 | 7.5 | 0.6 | 10.5 | 10.0 | 7.0 | 7.5 | 0.6 |
| 0.033 | 10.5 | 8.0 | 5.0 | 7.5 | 0.6 | 11.5 | 11.5 | 7.0 | 7.5 | 0.6 | 11.5 | 11.0 | 6.0 | 7.5 | 0.6 | 13.5 | 11.0 | 7.0 | 10.0 | 0.6 |
| 0.047 | 10.5 | 9.0 | 5.5 | 7.5 | 0.6 | 11.5 | 8.0 | 6.0 | 7.5 | 0.6 | 11.5 | 11.5 | 7.0 | 7.5 | 0.6 | 13.5 | 12.5 | 8.0 | 10.0 | 0.6 |
| 0.068 | 10.5 | 9.5 | 5.5 | 7.5 | 0.6 | 11.5 | 8.0 | 6.0 | 7.5 | 0.6 | 11.5 | 13.5 | 9.0 | 7.5 | 0.6 | 13.5 | 13.5 | 9.0 | 10.0 | 0.8 |
| 0.1 | 11.5 | 7.5 | 5.5 | 7.5 | 0.6 | 11.5 | 10.5 | 8.0 | 7.5 | 0.6 | 13.5 | 13.0 | 9.0 | 10.0 | 0.6 | 18.5 | 15.0 | 7.0 | 15.0 | 0.8 |
| 0.15 | 11.5 | 8.0 | 6.0 | 7.5 | 0.6 | 13.5 | 13.0 | 8.0 | 10.0 | 0.6 | 13.5 | 13.5 | 10.0 | 10.0 | 0.8 | 19.0 | 17.5 | 9.5 | 15.0 | 0.8 |
| 0.22 | 11.5 | 11.0 | 7.5 | 7.5 | 0.6 | 13.5 | 13.5 | 10.0 | 10.0 | 0.6 | 14.5 | 14.5 | 10.5 | 10.0 | 0.8 | 19.0 | 17.5 | 9.5 | 15.0 | 0.8 |
| 0.33 | 11.5 | 11.5 | 8.5 | 7.5 | 0.6 | 18.5 | 14.0 | 8.0 | 15.0 | 0.8 | 18.5 | 16.0 | 10.0 | 15.0 | 0.8 | 19.0 | 18.5 | 10.5 | 15.0 | 0.8 |
| 0.47 | 11.5 | 13.5 | 9.5 | 7.5 | 0.6 | 18.5 | 16.0 | 9.0 | 15.0 | 0.8 | 18.5 | 17.0 | 11.0 | 15.0 | 0.8 | 25.0 | 22.0 | 13.0 | 20.0 | 0.8 |
| 0.68 | 18.5 | 13.5 | 6.5 | 15.0 | 0.8 | 18.5 | 17.0 | 10.0 | 15.0 | 0.8 | 23.5 | 20.0 | 11.0 | 20.0 | 0.8 | 25.0 | 22.0 | 13.0 | 20.0 | 0.8 |
| 1.0 | 18.5 | 15.0 | 8.5 | 15.0 | 0.8 | 18.5 | 18.5 | 12.0 | 15.0 | 0.8 | 23.5 | 22.0 | 13.0 | 20.0 | 0.8 | 30.0 | 26.0 | 14.0 | 26.0 | 0.8 |
| 1.5 | 18.5 | 17.0 | 11.5 | 15.0 | 0.8 | 25.0 | 15.0 | 10.0 | 20.0 | 0.8 | 30.0 | 23.0 | 12.0 | 26.0 | 0.8 | | | | | |
| 2.2 | 18.5 | 17.0 | 11.5 | 15.0 | 0.8 | 23.5 | 20.5 | 10.5 | 20.0 | 0.8 | 30.0 | 23.0 | 12.0 | 26.0 | 0.8 | | | | | |
| 3.3 | 18.5 | 18.5 | 14.5 | 15.0 | 0.8 | 23.5 | 23.5 | 13.5 | 20.0 | 0.8 | | | | | | | | | | |
| 4.7 | 30.0 | 20.0 | 12.0 | 26.0 | 0.8 | 30.0 | 24.0 | 16.0 | 26.0 | 0.8 | | | | | | | | | | |
| 6.8 | 30.0 | 23.0 | 14.0 | 26.0 | 0.8 | 30.0 | 24.0 | 16.0 | 26.0 | 0.8 | | | | | | | | | | |
| 10 | 30.0 | 30.0 | 18.0 | 26.0 | 0.8 | 30.0 | 30.0 | 19.0 | 26.0 | 0.8 | | | | | | | | | | |

# CL21(A)型金属化聚酯薄膜电容器



## CL21(A) METALLIZED POLYESTER FILM CAPACITOR

| $C_R$ | 1000Vdc | | | | |
|---|---|---|---|---|---|
| (μF) | W | H | T | P | d |
| 0.00047 | 7.0 | 6.8 | 3.7 | 5.0 | 0.5 |
| 0.0006 | 7.0 | 6.8 | 3.7 | 5.0 | 0.5 |
| 0.0007 | 7.0 | 6.7 | 3.6 | 5.0 | 0.5 |
| 0.0008 | 7.0 | 6.5 | 3.4 | 5.0 | 0.5 |
| 0.001 | 7.0 | 6.8 | 3.7 | 5.0 | 0.5 |
| 0.0012 | 7.0 | 6.6 | 3.4 | 5.0 | 0.5 |
| 0.0015 | 7.0 | 6.9 | 3.7 | 5.0 | 0.5 |
| 0.0018 | 7.0 | 6.6 | 3.4 | 5.0 | 0.5 |
| 0.0022 | 7.0 | 6.8 | 3.7 | 5.0 | 0.5 |
| 0.001 | 9.5 | 7.5 | 3.7 | 7.5 | 0.6 |
| 0.0012 | 9.5 | 7.4 | 3.6 | 7.5 | 0.6 |
| 0.0015 | 9.5 | 7.7 | 3.9 | 7.5 | 0.6 |
| 0.0018 | 9.5 | 7.5 | 3.7 | 7.5 | 0.6 |
| 0.0022 | 9.5 | 7.3 | 3.5 | 7.5 | 0.6 |
| 0.0027 | 9.5 | 7.6 | 3.8 | 7.5 | 0.6 |
| 0.0033 | 9.5 | 7.3 | 3.5 | 7.5 | 0.6 |
| 0.0039 | 9.5 | 7.5 | 3.8 | 7.5 | 0.6 |
| 0.0047 | 9.5 | 7.9 | 4.1 | 7.5 | 0.6 |
| 0.0056 | 9.5 | 8.2 | 4.4 | 7.5 | 0.6 |
| 0.0068 | 9.5 | 8.6 | 4.8 | 7.5 | 0.6 |
| 0.0082 | 9.5 | 9.0 | 5.2 | 7.5 | 0.6 |
| 0.001 | 12.0 | 8.5 | 3.9 | 10.0 | 0.6 |
| 0.0012 | 12.0 | 8.8 | 4.2 | 10.0 | 0.6 |
| 0.0015 | 12.0 | 8.7 | 4.1 | 10.0 | 0.6 |
| 0.0018 | 12.0 | 8.7 | 4.1 | 10.0 | 0.6 |
| 0.0022 | 12.0 | 9.1 | 4.5 | 10.0 | 0.6 |
| 0.0027 | 12.0 | 8.6 | 4.0 | 10.0 | 0.6 |
| 0.0033 | 12.0 | 8.9 | 4.3 | 10.0 | 0.6 |
| 0.0039 | 12.0 | 8.7 | 4.1 | 10.0 | 0.6 |
| 0.0047 | 12.0 | 9.0 | 4.4 | 10.0 | 0.6 |
| 0.0056 | 12.0 | 8.7 | 4.4 | 10.0 | 0.6 |
| 0.0068 | 12.0 | 9.1 | 4.5 | 10.0 | 0.6 |
| 0.0082 | 12.0 | 8.7 | 4.1 | 10.0 | 0.6 |
| 0.01 | 12.0 | 9.1 | 4.5 | 10.0 | 0.6 |
| 0.012 | 12.0 | 9.5 | 4.9 | 10.0 | 0.6 |
| 0.015 | 12.0 | 10.1 | 5.4 | 10.0 | 0.6 |
| 0.018 | 12.0 | 10.6 | 5.9 | 10.0 | 0.6 |
| 0.022 | 12.0 | 11.2 | 6.6 | 10.0 | 0.6 |
| 0.015 | 17.3 | 10.2 | 4.8 | 15.0 | 0.6 |
| 0.018 | 17.3 | 10.7 | 5.2 | 15.0 | 0.6 |
| 0.022 | 17.3 | 10.2 | 4.8 | 15.0 | 0.6 |
| 0.027 | 17.3 | 10.7 | 5.3 | 15.0 | 0.6 |
| 0.033 | 17.7 | 11.3 | 5.8 | 15.0 | 0.8 |
| 0.039 | 17.7 | 11.8 | 6.4 | 15.0 | 0.8 |
| 0.047 | 17.7 | 12.5 | 7.0 | 15.0 | 0.8 |
| 0.056 | 17.7 | 14.2 | 7.1 | 15.0 | 0.8 |
| 0.068 | 17.7 | 15.0 | 7.8 | 15.0 | 0.8 |
| 0.082 | 17.7 | 15.9 | 8.7 | 15.0 | 0.8 |
| 0.1 | 17.7 | 16.9 | 9.7 | 15.0 | 0.8 |
| 0.068 | 25.5 | 12.8 | 5.7 | 22.5 | 0.8 |
| 0.082 | 25.5 | 14.6 | 5.9 | 22.5 | 0.8 |
| 0.1 | 25.5 | 15.3 | 6.5 | 22.5 | 0.8 |
| 0.12 | 25.5 | 16.0 | 7.3 | 22.5 | 0.8 |
| 0.15 | 25.5 | 17.1 | 8.2 | 22.5 | 0.8 |
| 0.18 | 25.5 | 18.0 | 9.2 | 22.5 | 0.8 |
| 0.00 | 25.5 | 19.1 | 10.3 | 22.5 | 0.8 |
| 0.27 | 25.5 | 21.4 | 10.9 | 22.5 | 0.8 |
| 0.33 | 25.5 | 22.8 | 12.3 | 22.5 | 0.8 |
| 0.39 | 25.5 | 24.2 | 13.6 | 22.5 | 0.8 |
| 0.12 | 30.7 | 16.2 | 5.8 | 27.5 | 0.8 |
| 0.15 | 30.7 | 17.0 | 6.6 | 27.5 | 0.8 |
| 0.18 | 30.7 | 17.8 | 7.4 | 27.5 | 0.8 |
| 0.22 | 30.7 | 18.8 | 8.3 | 27.5 | 0.8 |
| 0.27 | 30.7 | 19.9 | 9.4 | 27.5 | 0.8 |
| 0.33 | 30.7 | 21.1 | 10.6 | 27.5 | 0.8 |
| 0.33 | 30.7 | 21.1 | 10.6 | 27.5 | 0.8 |
| 0.39 | 30.7 | 22.2 | 11.7 | 27.5 | 0.8 |
| 0.47 | 30.7 | 23.6 | 13.1 | 27.5 | 0.8 |
| 0.56 | 30.7 | 25.0 | 14.5 | 27.5 | 0.8 |
| 0.68 | 30.7 | 27.8 | 15.5 | 27.5 | 0.8 |
| 0.82 | 30.7 | 29.6 | 17.4 | 27.5 | 0.8 |

| $C_R$ | 1250Vdc | | | | |
|---|---|---|---|---|---|
| (μF) | W | H | T | P | d |
| 0.001 | 9.5 | 7.4 | 3.6 | 7.5 | 0.6 |
| 0.0012 | 9.5 | 7.6 | 3.8 | 7.5 | 0.6 |
| 0.0015 | 9.5 | 8.0 | 4.2 | 7.5 | 0.6 |
| 0.0018 | 9.5 | 7.8 | 4.0 | 7.5 | 0.6 |
| 0.0022 | 9.5 | 8.1 | 4.4 | 7.5 | 0.6 |
| 0.0027 | 9.5 | 8.6 | 4.8 | 7.5 | 0.6 |
| 0.0033 | 9.5 | 9.0 | 5.2 | 7.5 | 0.6 |
| 0.001 | 12.0 | 8.3 | 3.7 | 10.0 | 0.6 |
| 0.0012 | 12.0 | 8.6 | 4.0 | 10.0 | 0.6 |
| 0.0015 | 12.0 | 8.9 | 4.3 | 10.0 | 0.6 |
| 0.0018 | 12.0 | 8.9 | 4.3 | 10.0 | 0.6 |
| 0.0022 | 12.0 | 9.3 | 4.7 | 10.0 | 0.6 |
| 0.0027 | 12.0 | 8.8 | 4.2 | 10.0 | 0.6 |
| 0.0033 | 12.0 | 9.2 | 4.5 | 10.0 | 0.6 |
| 0.0039 | 12.0 | 8.9 | 4.3 | 10.0 | 0.6 |
| 0.0047 | 12.0 | 9.3 | 4.7 | 10.0 | 0.6 |
| 0.0056 | 12.0 | 9.7 | 5.1 | 10.0 | 0.6 |
| 0.0068 | 12.0 | 10.2 | 5.5 | 10.0 | 0.6 |
| 0.0082 | 12.0 | 10.7 | 6.1 | 10.0 | 0.6 |
| 0.01 | 12.0 | 11.3 | 6.7 | 10.0 | 0.6 |
| 0.01 | 17.3 | 10.7 | 5.3 | 15.0 | 0.6 |
| 0.012 | 17.3 | 10.5 | 5.0 | 15.0 | 0.6 |
| 0.015 | 17.7 | 11.1 | 5.6 | 15.0 | 0.8 |
| 0.018 | 17.7 | 11.6 | 6.1 | 15.0 | 0.8 |
| 0.022 | 17.7 | 12.6 | 6.8 | 15.0 | 0.8 |
| 0.027 | 17.7 | 14.1 | 6.9 | 15.0 | 0.8 |
| 0.033 | 17.7 | 14.9 | 7.7 | 15.0 | 0.8 |
| 0.039 | 17.7 | 15.6 | 8.5 | 22.5 | 0.8 |
| 0.047 | 17.7 | 16.6 | 9.4 | 22.5 | 0.8 |
| 0.033 | 25.5 | 12.8 | 5.7 | 22.5 | 0.8 |
| 0.039 | 25.5 | 13.3 | 6.2 | 22.5 | 0.8 |
| 0.047 | 25.5 | 14.0 | 6.9 | 22.5 | 0.8 |
| 0.056 | 25.5 | 14.7 | 7.6 | 22.5 | 0.8 |
| 0.068 | 25.5 | 15.6 | 8.4 | 22.5 | 0.8 |
| 0.082 | 25.5 | 17.5 | 8.7 | 22.5 | 0.8 |
| 0.1 | 25.5 | 18.6 | 9.7 | 22.5 | 0.8 |
| 0.12 | 25.5 | 19.6 | 10.8 | 22.5 | 0.8 |
| 0.15 | 25.5 | 22.1 | 11.6 | 22.5 | 0.8 |
| 0.18 | 25.5 | 23.5 | 12.9 | 22.5 | 0.8 |
| 0.068 | 30.7 | 16.7 | 6.3 | 27.5 | 0.8 |
| 0.082 | 30.7 | 17.4 | 7.0 | 27.5 | 0.8 |
| 0.1 | 30.7 | 18.3 | 7.9 | 27.5 | 0.8 |
| 0.12 | 30.7 | 19.2 | 8.8 | 27.5 | 0.8 |
| 0.15 | 30.7 | 20.5 | 10.0 | 27.5 | 0.8 |
| 0.18 | 30.7 | 21.6 | 11.1 | 27.5 | 0.8 |
| 0.22 | 30.7 | 23.0 | 12.5 | 27.5 | 0.8 |
| 0.27 | 30.7 | 25.6 | 13.4 | 27.5 | 0.8 |
| 0.33 | 30.7 | 27.4 | 15.2 | 27.5 | 0.8 |
| 0.39 | 30.7 | 29.0 | 16.7 | 27.5 | 0.8 |

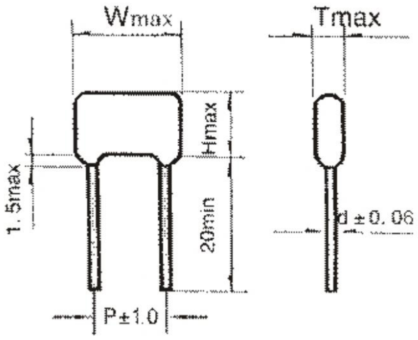
| $C_R$ | 1600Vdc | | | | |
|---|---|---|---|---|---|
| (μF) | W | H | T | P | d |
| 0.001 | 17.3 | 10.4 | 5.0 | 15.0 | 0.6 |
| 0.0012 | 17.3 | 10.8 | 5.4 | 15.0 | 0.6 |
| 0.0015 | 17.3 | 10.7 | 5.2 | 15.0 | 0.6 |
| 0.0018 | 17.3 | 10.4 | 4.9 | 15.0 | 0.6 |
| 0.0022 | 17.3 | 10.8 | 5.4 | 15.0 | 0.6 |
| 0.0027 | 17.3 | 10.5 | 5.0 | 15.0 | 0.6 |
| 0.0033 | 17.3 | 11.0 | 5.5 | 15.0 | 0.6 |
| 0.0039 | 17.3 | 10.4 | 4.9 | 15.0 | 0.6 |
| 0.0047 | 17.3 | 10.8 | 5.4 | 15.0 | 0.6 |
| 0.0056 | 17.7 | 11.3 | 5.8 | 15.0 | 0.8 |
| 0.0068 | 17.7 | 13.0 | 5.9 | 15.0 | 0.8 |
| 0.0082 | 17.7 | 13.6 | 6.5 | 15.0 | 0.8 |
| 0.01 | 17.7 | 14.3 | 7.2 | 15.0 | 0.8 |
| 0.012 | 17.7 | 15.0 | 7.9 | 15.0 | 0.8 |
| 0.015 | 17.7 | 16.1 | 8.9 | 15.0 | 0.8 |
| 0.018 | 17.7 | 17.0 | 9.8 | 15.0 | 0.8 |
| 0.012 | 25.5 | 12.6 | 5.5 | 22.5 | 0.8 |
| 0.015 | 25.5 | 13.2 | 6.1 | 22.5 | 0.8 |
| 0.018 | 25.5 | 13.8 | 6.7 | 22.5 | 0.8 |
| 0.022 | 25.5 | 14.6 | 7.5 | 22.5 | 0.8 |
| 0.027 | 25.5 | 15.5 | 8.3 | 22.5 | 0.8 |
| 0.033 | 25.5 | 17.5 | 8.6 | 22.5 | 0.8 |
| 0.039 | 25.5 | 18.3 | 9.5 | 22.5 | 0.8 |
| 0.047 | 25.5 | 19.4 | 10.5 | 22.5 | 0.8 |
| 0.056 | 25.5 | 21.5 | 11.0 | 22.5 | 0.8 |
| 0.068 | 25.5 | 22.8 | 12.3 | 22.5 | 0.8 |
| 0.027 | 30.7 | 16.6 | 6.2 | 27.5 | 0.8 |
| 0.033 | 30.7 | 17.3 | 6.9 | 27.5 | 0.8 |
| 0.039 | 30.7 | 18.0 | 7.6 | 27.5 | 0.8 |
| 0.047 | 30.7 | 18.8 | 8.4 | 27.5 | 0.8 |
| 0.056 | 30.7 | 19.8 | 9.3 | 27.5 | 0.8 |
| 0.068 | 30.7 | 20.9 | 10.4 | 27.5 | 0.8 |
| 0.082 | 30.7 | 22.1 | 11.6 | 27.5 | 0.8 |
| 0.1 | 30.7 | 23.5 | 13.0 | 27.5 | 0.8 |
| 0.12 | 30.7 | 26.0 | 13.8 | 27.5 | 0.8 |
| 0.15 | 30.7 | 28.0 | 15.7 | 27.5 | 0.8 |
| 0.18 | 30.7 | 29.8 | 17.5 | 27.5 | 0.8 |

# CL21X型金属化聚酯薄膜电容器



## CL21X METALLIZED POLYESTER FILM CAPACITOR

### ■外形图 Outline Drawing





■特点
- 体积小
- 自愈性好，可靠性高
- 损耗小
- 非标和特殊规格按用户要求生产

■Features
- Small size
- Excellent self–healing property and reliability
- Low dissipation factor
- According to user's need, capacitor of nostandard and special specification can be produced.

### ■主要技术参数 Main Technical Specifications

| 项目<br>Items | 性能要求 Characterstics |
|---|---|
| 引用标准<br>Reference Standard | GB/T7332(IEC60384–2) |
| 气候类别<br>Climatic Category | 55/105/21 |
| 额定温度<br>Rated Temperature | 85℃ |
| 工作温度范围<br>Operating Temperature Range | –55℃~+105℃(+85℃ to +105℃:decreasing factor 1.25% per℃ for $V_R$(dc)) |
| 额定电压<br>Rated Voltage | 50/63V、100V |
| 电容量范围<br>Capacitance Range | 0.0010~1.0 μ F |
| 电容量偏差<br>Capacitance Tolerance | ± 5%(J); ± 10%(K) |
| 耐电压<br>Voltage Proof | 1.6$U_R$(1~5s) |
| 损耗角正切<br>Dissipation Factor | ≤0.01(1kHz)<br>≤0.014(10kHz) |
| 绝缘电阻<br>Insulation Resistance | ≥15000MΩ,$C_R$≤0.33 μ F<br>≥5000s,$C_R$ > 0.33 μ F (20℃,10V,1min) |

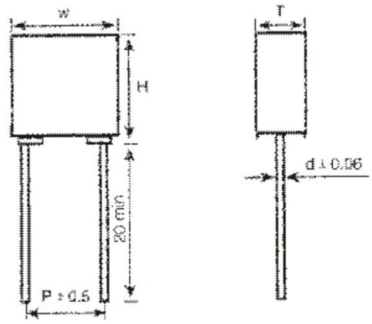
■外形尺寸 Dimensions(mm)

| $C_R$ (μF) | 50Vdc/63Vdc | | | | | 100Vdc | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | W | H | T | P | d | W | H | T | P | d |
| 0.0010 | 7.3 | 7.5 | 4.5 | 5.0 | 0.5 | 7.3 | 7.5 | 4.5 | 5.0 | 0.5 |
| 0.0012 | 7.3 | 7.5 | 4.5 | 5.0 | 0.5 | 7.3 | 7.5 | 4.5 | 5.0 | 0.5 |
| 0.0015 | 7.3 | 7.5 | 4.5 | 5.0 | 0.5 | 7.3 | 7.5 | 4.5 | 5.0 | 0.5 |
| 0.0018 | 7.3 | 7.5 | 4.5 | 5.0 | 0.5 | 7.3 | 7.5 | 4.5 | 5.0 | 0.5 |
| 0.0022 | 7.3 | 7.5 | 4.5 | 5.0 | 0.5 | 7.3 | 7.5 | 4.5 | 5.0 | 0.5 |
| 0.0027 | 7.3 | 7.5 | 4.5 | 5.0 | 0.5 | 7.3 | 7.5 | 4.5 | 5.0 | 0.5 |
| 0.0033 | 7.3 | 7.5 | 4.5 | 5.0 | 0.5 | 7.3 | 7.5 | 4.5 | 5.0 | 0.5 |
| 0.0039 | 7.3 | 8.0 | 4.5 | 5.0 | 0.5 | 7.3 | 8.0 | 4.5 | 5.0 | 0.5 |
| 0.0047 | 7.3 | 8.0 | 4.5 | 5.0 | 0.5 | 7.3 | 8.0 | 4.5 | 5.0 | 0.5 |
| 0.0056 | 7.3 | 8.0 | 4.5 | 5.0 | 0.5 | 7.3 | 8.0 | 4.5 | 5.0 | 0.5 |
| 0.0068 | 7.3 | 8.0 | 4.5 | 5.0 | 0.5 | 7.3 | 8.0 | 4.5 | 5.0 | 0.5 |
| 0.0082 | 7.3 | 8.0 | 4.5 | 5.0 | 0.5 | 7.3 | 8.0 | 4.5 | 5.0 | 0.5 |
| 0.10 | 7.3 | 7.0 | 4.0 | 5.0 | 0.5 | 8.5 | 7.0 | 5.0 | 5.0 | 0.5 |
| 0.012 | 7.3 | 7.0 | 4.0 | 5.0 | 0.5 | 8.5 | 7.0 | 5.0 | 5.0 | 0.5 |
| 0.015 | 7.3 | 7.5 | 4.0 | 5.0 | 0.5 | 8.5 | 7.0 | 5.0 | 5.0 | 0.5 |
| 0.018 | 7.3 | 7.5 | 4.0 | 5.0 | 0.5 | 8.5 | 7.0 | 5.0 | 5.0 | 0.5 |
| 0.022 | 7.3 | 7.0 | 4.0 | 5.0 | 0.5 | 8.5 | 7.0 | 5.0 | 5.0 | 0.5 |
| 0.027 | 7.3 | 7.0 | 4.0 | 5.0 | 0.5 | 8.5 | 7.0 | 5.0 | 5.0 | 0.5 |
| 0.033 | 7.3 | 7.5 | 4.5 | 5.0 | 0.5 | 8.5 | 7.0 | 5.0 | 5.0 | 0.5 |
| 0.039 | 7.3 | 7.5 | 4.5 | 5.0 | 0.5 | 8.5 | 7.0 | 5.0 | 5.0 | 0.5 |
| 0.047 | 7.3 | 7.5 | 4.5 | 5.0 | 0.5 | 8.5 | 7.0 | 5.0 | 5.0 | 0.5 |
| 0.056 | 7.3 | 8.0 | 4.5 | 5.0 | 0.5 | 8.5 | 8.0 | 6.0 | 5.0 | 0.5 |
| 0.068 | 7.3 | 8.0 | 4.5 | 5.0 | 0.5 | 8.5 | 8.0 | 6.0 | 5.0 | 0.5 |
| 0.082 | 7.3 | 8.0 | 4.5 | 5.0 | 0.5 | 8.5 | 8.0 | 6.0 | 5.0 | 0.5 |
| 0.10 | 7.3 | 9.5 | 4.5 | 5.0 | 0.5 | 8.5 | 8.0 | 6.0 | 5.0 | 0.5 |
| 0.12 | 10.2 | 8.0 | 4.5 | 7.5 | 0.5 | 8.5 | 8.5 | 7.0 | 5.0 | 0.5 |
| 0.15 | 10.2 | 9.0 | 4.5 | 7.5 | 0.5 | 8.5 | 8.5 | 7.0 | 5.0 | 0.5 |
| 0.18 | 10.2 | 9.0 | 4.5 | 7.5 | 0.5 | 8.5 | 8.5 | 7.0 | 5.0 | 0.5 |
| 0.22 | 10.2 | 9.5 | 5.0 | 7.5 | 0.5 | 8.5 | 8.5 | 7.0 | 5.0 | 0.5 |
| 0.27 | 10.2 | 10.0 | 5.5 | 7.5 | 0.5 | 10.2 | 10.0 | 5.5 | 7.5 | 0.6 |
| 0.33 | 10.2 | 8.0 | 5.0 | 7.5 | 0.5 | 10.2 | 11.0 | 6.0 | 7.5 | 0.6 |
| 0.39 | 10.2 | 8.5 | 5.0 | 7.5 | 0.5 | 10.2 | 11.5 | 6.5 | 7.5 | 0.6 |
| 0.47 | 10.2 | 9.0 | 5.5 | 7.5 | 0.5 | 10.2 | 12.0 | 7.0 | 7.5 | 0.6 |
| 0.56 | 10.2 | 9.0 | 6.0 | 7.5 | 0.5 | 10.2 | 12.5 | 7.5 | 7.5 | 0.6 |
| 0.68 | 10.2 | 9.5 | 6.5 | 7.5 | 0.5 | 10.2 | 12.5 | 8.5 | 7.5 | 0.6 |
| 0.82 | 10.2 | 10.0 | 7.0 | 7.5 | 0.5 | 10.2 | 13.5 | 9.5 | 7.5 | 0.6 |
| 1.0 | 10.2 | 11.0 | 7.5 | 7.5 | 0.5 | 10.2 | 14.5 | 10.5 | 7.5 | 0.6 |

# CL23塑料外壳金属化聚酯膜电容器(P=5) SD

## CL23 BOX–TYPE METALLIZED POLYESTER FILM CAPACITOR (P=5)

### ■外形图Outline Drawing




■特点
- 金属化聚酯膜
- 塑料外壳(UL94 V–0),阻燃环氧填充
- 抗脉冲能力强

■主要用途
- 旁路，隔直，耦合，退耦
- 脉冲，逻辑，定时，电路振荡器
- LCD监视器整流，汽车直流马达抑制干扰

■Features
- Metallized polyester film, stacked construction
- Plastic case(UL94 V–0), Epoxy resin sealing
- High dv/dt ability

■Typical Applications:
- By–passing, blocking, coupling, decoupling,
- Pulse logic, timing , oscillator circuits.
- Invert for LCD monitors, automotive DC motor suppression

### ■技术要求Specifications

| 项目 Items | 性能要求 Characterstics | | |
|---|---|---|---|
| 引用标准Reference Standard | GB/T7332(IEC60384–2) | | |
| 气候类别Climatic Category | 55/105/56 | | |
| 额定温度Rated Temperature | 85℃ | | |
| 工作温度范围 Operating Temperature Range | –55℃~+105℃<br>(+85℃ to +105℃:decreasing factor 1.25% per℃ for $V_R$(dc)) | | |
| 额定电压Rated Voltage | 63V、100V、250V、400V、500V、630V | | |
| 电容量范围 Capacitance Range | 0.0010 μ F~2.2 μ F | | |
| 电容量偏差 Capacitance Tolerance | ± 5%(J),10%(K), ± 20%(M) | | |
| 耐电压 Voltage Proot | 1.6$U_R$(1~5s) | | |
| 损耗角正切 Dissipation Factor | 测试频率Frequency | $C_R$≤1.0 μ F | $C_R$>0.1μF |
| | 1KHz | ≤1.0% | ≤1.0% |
| | 10KHz | ≤1.5% | ≤1.5% |
| | 100kHz | ≤3.0% | |
| 绝缘电阻Insulation Resistance | $U_R$>100V | ≥30000 MΩ,$C_R$≤0.33 μ F<br>≥10000 s,$C_R$>0.33 μ F (20℃,100V,1min) | |
| | $U_R$≤100V | ≥15000 MΩ,$C_R$≤0.33 μ F<br>≥5000 s,$C_R$>0.33 μ F (20℃,10V,1min) | |
| 最大脉冲爬升速率Maximum Pulse Rise Time(dv/dt):若实际工作电压U比额定电压$U_R$低，电容器可工作在更高的dv/dt场合。这样dv/dt允许值应为右表值乘以 $U_R$/U.<br>If the working voltage(U) is lower than the rated voltage ($U_R$),the capacitor can be worked at a higher dv/dt. In this case, the maximum allowed dv/dt is obtain by multiplying the right value with $U_R$/U. | $U_R$(U) | dv/dt(v/ μ s) | |
| | 63 | 200 | |
| | 100 | 250 | |
| | 250 | 350 | |
| | 400 | 500 | |
| | 500 | 550 | |
| | 630 | 600 | |

# CL23塑料外壳金属化聚酯膜电容器(P=5) SD

## CL23 BOX-TYPE METALLIZED POLYESTER FILM CAPACITOR (P=5)

■外形尺寸 Dimensions(mm)

| 电容器厚度(Capacitor Thickness)T | ≤3.5 | >3.5 |
|---|---|---|
| 外形尺寸偏差Dimension Tolerance(W,H,T) | ±0.2 | ±0.4 |

| $C_R$ (μF) | 63Vdc(40Vac) | | | | | 100Vdc(63Vac) | | | | | 250Vdc(160Vac) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | W | T | H | P | d | W | T | H | P | d | W | T | H | P | d |
| 0.001 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 |
| 0.0012 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 |
| 0.0015 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 |
| 0.0018 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 |
| 0.0022 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 |
| 0.0027 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 |
| 0.0033 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 |
| 0.0039 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 |
| 0.0047 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 |
| 0.0056 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 |
| 0.0068 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 |
| 0.0082 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 |
| 0.01 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 |
| 0.012 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 |
| 0.015 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 |
| 0.018 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 |
| 0.022 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 7.5 | 3.5 | 5.0 | 0.5 |
| 0.027 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 7.5 | 3.5 | 5.0 | 0.5 |
| 0.033 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 7.5 | 3.5 | 5.0 | 0.5 |
| 0.039 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 7.5 | 3.5 | 5.0 | 0.5 |
| 0.047 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 9.5 | 4.5 | 5.0 | 0.6 |
| 0.056 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 9.5 | 4.5 | 5.0 | 0.6 |
| 0.068 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 9.5 | 4.5 | 5.0 | 0.6 |
| 0.082 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 10.0 | 5.0 | 5.0 | 0.6 |
| 0.01 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 7.5 | 3.5 | 5.0 | 0.5 | 7.2 | 10.0 | 5.0 | 5.0 | 0.6 |
| 0.12 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 9.5 | 4.5 | 5.0 | 0.6 | 7.2 | 11.0 | 6.0 | 5.0 | 0.6 |
| 0.15 | 7.2 | 7.5 | 3.5 | 5.0 | 0.5 | 7.2 | 9.5 | 4.5 | 5.0 | 0.6 | 7.2 | 11.0 | 6.0 | 5.0 | 0.6 |
| 0.18 | 7.2 | 7.5 | 3.5 | 5.0 | 0.5 | 7.2 | 9.5 | 4.5 | 5.0 | 0.6 | | | | | |
| 0.22 | 7.2 | 7.5 | 3.5 | 5.0 | 0.5 | 7.2 | 10.0 | 5.0 | 5.0 | 0.6 | | | | | |
| 0.27 | 7.2 | 9.5 | 4.5 | 5.0 | 0.6 | 7.2 | 10.0 | 5.0 | 5.0 | 0.6 | | | | | |
| 0.33 | 7.2 | 9.5 | 4.5 | 5.0 | 0.6 | 7.2 | 11.0 | 6.0 | 5.0 | 0.6 | | | | | |
| 0.39 | 7.2 | 9.5 | 4.5 | 5.0 | 0.6 | 7.2 | 11.0 | 6.0 | 5.0 | 0.6 | | | | | |
| 0.47 | 7.2 | 10.0 | 5.0 | 5.0 | 0.6 | 7.2 | 11.0 | 6.0 | 5.0 | 0.6 | | | | | |
| 0.56 | 7.2 | 10.0 | 5.0 | 5.0 | 0.6 | 7.2 | 11.0 | 6.0 | 5.0 | 0.6 | | | | | |
| 0.68 | 7.2 | 11.0 | 6.0 | 5.0 | 0.6 | | | | | | | | | | |
| 0.82 | 7.2 | 11.0 | 6.0 | 5.0 | 0.6 | | | | | | | | | | |
| 1 | 7.2 | 11.0 | 6.0 | 5.0 | 0.6 | | | | | | | | | | |

# CL23塑料外壳金属化聚酯膜电容器(P=5) SD

## CL23 BOX-TYPE METALLIZED POLYESTER FILM CAPACITOR (P=5)

| $C_R$ (μF) | 400Vdc(200Vac) | | | | | 500Vdc(220Vac) | | | | | 630Vdc(220Vac) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | W | T | H | P | d | W | T | H | P | d | W | T | H | P | d |
| 0.001 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 |
| 0.0012 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 |
| 0.0015 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 |
| 0.0018 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 7.5 | 3.5 | 5.0 | 0.5 |
| 0.0022 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 7.5 | 3.5 | 5.0 | 0.5 |
| 0.0027 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 7.5 | 3.5 | 5.0 | 0.5 |
| 0.0033 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 7.5 | 3.5 | 5.0 | 0.5 | 7.2 | 7.5 | 3.5 | 5.0 | 0.5 |
| 0.0039 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 7.5 | 3.5 | 5.0 | 0.5 | 7.2 | 7.5 | 3.5 | 5.0 | 0.5 |
| 0.0047 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 7.5 | 3.5 | 5.0 | 0.5 | 7.2 | 9.5 | 4.5 | 5.0 | 0.6 |
| 0.0056 | 7.2 | 6.5 | 2.5 | 5.0 | 0.5 | 7.2 | 7.5 | 3.5 | 5.0 | 0.5 | 7.2 | 9.5 | 4.5 | 5.0 | 0.6 |
| 0.0068 | 7.2 | 7.5 | 3.5 | 5.0 | 0.5 | 7.2 | 9.5 | 4.5 | 5.0 | 0.6 | 7.2 | 9.5 | 4.5 | 5.0 | 0.6 |
| 0.0082 | 7.2 | 7.5 | 3.5 | 5.0 | 0.5 | 7.2 | 9.5 | 4.5 | 5.0 | 0.6 | 7.2 | 9.5 | 4.5 | 5.0 | 0.6 |
| 0.01 | 7.2 | 7.5 | 3.5 | 5.0 | 0.5 | 7.2 | 9.5 | 4.5 | 5.0 | 0.6 | 7.2 | 10.0 | 5.0 | 5.0 | 0.6 |
| 0.012 | 7.2 | 9.5 | 4.5 | 5.0 | 0.6 | 7.2 | 9.5 | 4.5 | 5.0 | 0.6 | 7.2 | 11.0 | 6.0 | 5.0 | 0.6 |
| 0.015 | 7.2 | 9.5 | 4.5 | 5.0 | 0.6 | 7.2 | 10.0 | 5.0 | 5.0 | 0.6 | 7.2 | 11.0 | 6.0 | 5.0 | 0.6 |
| 0.018 | 7.2 | 9.5 | 4.5 | 5.0 | 0.6 | 7.2 | 11.0 | 6.0 | 5.0 | 0.6 | 7.2 | 11.0 | 6.0 | 5.0 | 0.6 |
| 0.022 | 7.2 | 10.0 | 5.0 | 5.0 | 0.6 | 7.2 | 11.0 | 6.0 | 5.0 | 0.6 | | | | | |
| 0.027 | 7.2 | 11.0 | 6.0 | 5.0 | 0.6 | 7.2 | 11.0 | 6.0 | 5.0 | 0.6 | | | | | |
| 0.033 | 7.2 | 11.0 | 6.0 | 5.0 | 0.6 | | | | | | | | | | |
| 0.039 | 7.2 | 11.0 | 6.0 | 5.0 | 0.6 | | | | | | | | | | |
| 0.047 | 7.2 | 11.0 | 6.0 | 5.0 | 0.6 | | | | | | | | | | |

# CL81型高压金属化箔式聚酯膜电容



## CL81 HIGH-VOLTAGE METALLIZED FOIL SERIES POLYESTER FILM CAPACITOR

· 结构：金属化聚酯薄膜，聚酯膜介质，金属箔，阻燃环氧树脂包封。

· 特点：体积小，重量轻，自愈性好，可靠性高

· 用途：适用于高、中电压电流、脉冲电路，电子镇流器和电源开关等高频振荡电路中

· 非标和特殊规格按用户要求生产。

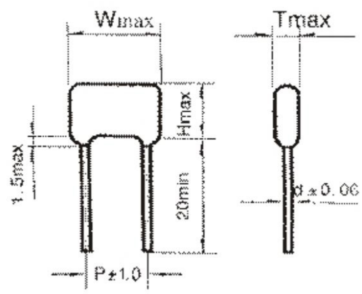
· Structure:Metauized Polyester, polyester film metal foil, flame reardant epoxy resin coating.

· Features:Small size,light weight, Excellent performance due to the good self-healing property and high reliability.

· Application:Suitable for DC and pulsating circuits at medium and high voltage, electronic lighting ballasts and high voltager power supplies of high frequenly and high pulse rise time circuits.

· According to user's need, capacitor of nostandard and special specification can be produced.


■外形图Outline Drawing




■主要技术参数 Main Technical Specifications

| 项目 Items | 性能要求 Characterstics |
|---|---|
| 标准 Standard | GB/T7332(ICE60384-2) |
| 气候类别 Climatic Category | 55/105/21 |
| 额定温度 Rated Temperature | 85℃ |
| 工作温度范围 Operating Temperature Range | -55℃~+105℃(+85℃ to +105℃:decreasing factor 1.25% per℃ for $V_R$(dc)) |
| 额定电压 Rated Voltage | 1000V、1250V |
| 电容量范围 Capacitance Range | 0.0022μF~0.22μF |
| 电容量偏差 Capacitance Tolerance | ±5%(J), ±10%(K) |
| 耐电压 Voltage Proof | $1.8U_R$(1~5s) |
| 绝缘电阻 Insulation Resistance | ≥36000MΩ(20℃,1min) |
| 损耗角正切 Dissipation Factor | ≤0.01(20℃,1kHz)<br>≤0.014(20℃,10kHz) |

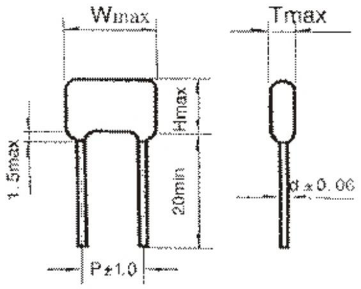
■外形尺寸Dimensions(mm)

| $C_R$ (μF) | 1000V | | | | | 1250V | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | W | H | T | P | d | W | H | T | P | d |
| 0.0022 | 19.0 | 10.0 | 6.5 | 15.0 | 0.6 | 19.0 | 10.0 | 6.5 | 15.0 | 0.6 |
| 0.0027 | 19.0 | 10.5 | 6.5 | 15.0 | 0.6 | 19.0 | 10.5 | 6.5 | 15.0 | 0.6 |
| 0.0033 | 19.0 | 12.0 | 6.5 | 15.0 | 0.6 | 19.0 | 12.0 | 6.5 | 15.0 | 0.6 |
| 0.0039 | 19.0 | 12.5 | 6.5 | 15.0 | 0.6 | 19.0 | 12.5 | 6.5 | 15.0 | 0.6 |
| 0.0047 | 19.0 | 12.5 | 7.0 | 15.0 | 0.6 | 19.0 | 12.5 | 7.0 | 15.0 | 0.6 |
| 0.0056 | 19.0 | 14.0 | 7.0 | 15.0 | 0.6 | 19.0 | 14.0 | 7.0 | 15.0 | 0.6 |
| 0.0068 | 19.0 | 15.0 | 8.0 | 15.0 | 0.6 | 19.0 | 15.0 | 8.0 | 15.0 | 0.6 |
| 0.0082 | 19.0 | 14.5 | 7.0 | 15.0 | 0.6 | 24.0 | 12.5 | 6.5 | 20.0 | 0.6 |
| 0.010 | 19.0 | 15.0 | 7.5 | 15.0 | 0.6 | 24.0 | 12.5 | 7.0 | 20.0 | 0.6 |
| 0.012 | 19.0 | 15.5 | 8.0 | 15.0 | 0.6 | 24.0 | 13.5 | 7.0 | 20.0 | 0.6 |
| 0.015 | 19.0 | 16.0 | 9.0 | 15.0 | 0.6 | 24.0 | 14.5 | 7.5 | 20.0 | 0.6 |
| 0.018 | 19.0 | 17.0 | 9.5 | 15.0 | 0.6 | 24.0 | 15.5 | 8.0 | 20.0 | 0.6 |
| 0.022 | 19.0 | 18.0 | 10.5 | 15.0 | 0.6 | 24.0 | 16.0 | 8.5 | 20.0 | 0.6 |
| 0.027 | 24.0 | 15.0 | 8.0 | 20.0 | 0.8 | 30.0 | 15.5 | 8.0 | 25.0 | 0.8 |
| 0.033 | 24.0 | 17.0 | 8.0 | 20.0 | 0.8 | 30.0 | 16.0 | 8.5 | 25.0 | 0.8 |
| 0.039 | 24.0 | 17.5 | 8.5 | 20.0 | 0.8 | 30.0 | 16.5 | 9.0 | 25.0 | 0.8 |
| 0.047 | 24.0 | 18.0 | 9.0 | 20.0 | 0.8 | 30.0 | 18.0 | 9.0 | 25.0 | 0.8 |
| 0.056 | 24.0 | 18.5 | 10.0 | 20.0 | 0.8 | 35.0 | 18.0 | 9.0 | 30.0 | 0.8 |
| 0.068 | 24.0 | 19.5 | 11.0 | 20.0 | 0.8 | 35.0 | 18.5 | 9.5 | 30.0 | 0.8 |
| 0.082 | 24.0 | 20.5 | 11.5 | 20.0 | 0.8 | 35.0 | 19.0 | 10.5 | 30.0 | 0.8 |
| 0.10 | 24.0 | 22.5 | 12.0 | 20.0 | 0.8 | 35.0 | 21.0 | 11.0 | 30.0 | 0.8 |
| 0.12 | 30.0 | 21.5 | 10.5 | 25.0 | 0.8 | | | | | |
| 0.15 | 30.0 | 22.0 | 11.5 | 25.0 | 0.8 | | | | | |
| 0.18 | 30.0 | 22.0 | 12.5 | 25.0 | 0.8 | | | | | |
| 0.22 | 30.0 | 24.5 | 14.0 | 25.0 | 0.8 | | | | | |

# CL12型无感箔式聚酯膜电容器 SD

## CL12 NON-INDUCTIVE POLYESTER FILM FOIL CAPACITOR

### ■外形图Outline Drawing





### ■特点

- 无感箔式结构，引线完全焊接在电极上
- 损耗小，可靠性高，稳定性好
- 能承受较大峰值电流
- 广泛用于滤波，旁路，耦合等直流和脉动电路中

### ■Features

- Non-inductive foil construction, leads are completely welded to electrodes
- Low loss, high reliabillity and good stability.
- High peak current capabillity
- Widely used in filter, blocking, by-pass and coupling circuits

### ■主要技术参数 Main Technical Specifications

| 项目 Items | 性能要求 Characterstics |
|---|---|
| 引用标准 Reference Standard | GB/T6346(IEC60384-11) |
| 气候类别 Climatic Category | 55/105/21 |
| 额定温度 Rated Temperature | 85℃ |
| 工作温度范围 Operating Temperature Range | -55℃~+105℃(+85℃ to +105℃:decreasing factor 1.25% per℃ for $V_R$(dc)) |
| 额定电压 Rated Voltage | 50/63/100V |
| 电容量范围 Capacitance Range | 0.001μF~0.47μF |
| 电容量偏差 Capacitance Tolerance | ±5%(J), ±10%(K), ±20%(M) |
| 耐电压 Voltage Proof | $2.0U_R$(1~5s) |
| 损耗角正切 Dissipation Factor | ≤0.008(20℃,1kHz) |
| 绝缘电阻 Insulation Resistance | ≥30000MΩ,$C_R$≤0.33Mf<br>≥10000s,$C_R$>0.33μF (20℃,1min) |

# CL12型无感箔式聚酯膜电容器



## CL12 NON-INDUCTIVE POLYESTER FILM FOIL CAPACITOR

■外形尺寸Dimensions(mm)

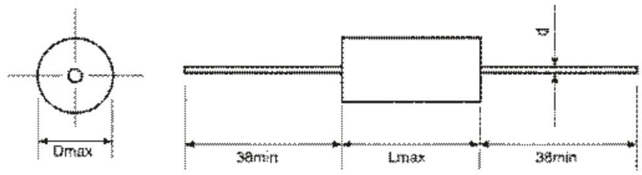
| $C_R$ (μF) | 50/63/100V | | | | |
|---|---|---|---|---|---|
| | W | H | T | P | d |
| 0.0010 | 10.0 | 9.5 | 5.5 | 6.5 | 0.6 |
| 0.0012 | 10.0 | 9.5 | 5.5 | 6.5 | 0.6 |
| 0.0015 | 10.0 | 10.0 | 6.0 | 6.5 | 0.6 |
| 0.0018 | 10.0 | 10.0 | 6.5 | 6.5 | 0.6 |
| 0.0020 | 10.0 | 9.5 | 5.5 | 6.5 | 0.6 |
| 0.0022 | 10.0 | 9.5 | 5.5 | 6.5 | 0.6 |
| 0.0027 | 10.0 | 10.0 | 6.0 | 6.5 | 0.6 |
| 0.0030 | 10.0 | 9.5 | 5.5 | 6.5 | 0.6 |
| 0.0033 | 10.0 | 9.5 | 5.5 | 6.5 | 0.6 |
| 0.0039 | 10.0 | 9.5 | 5.5 | 6.5 | 0.6 |
| 0.0047 | 10.0 | 10.0 | 6.0 | 6.5 | 0.6 |
| 0.0056 | 10.0 | 9.5 | 6.0 | 6.5 | 0.6 |
| 0.0068 | 10.0 | 10.0 | 6.0 | 6.5 | 0.6 |
| 0.0082 | 12.0 | 10.0 | 6.0 | 8.5 | 0.6 |
| 0.010 | 12.0 | 10.5 | 6.0 | 8.5 | 0.6 |
| 0.012 | 12.0 | 11.0 | 6.5 | 8.5 | 0.6 |
| 0.015 | 12.0 | 10.0 | 5.5 | 8.5 | 0.6 |
| 0.018 | 12.0 | 10.5 | 6.0 | 8.5 | 0.6 |
| 0.020 | 12.0 | 10.5 | 6.0 | 8.5 | 0.6 |
| 0.022 | 12.0 | 10.5 | 6.5 | 8.5 | 0.6 |
| 0.027 | 12.0 | 10.5 | 6.0 | 8.5 | 0.6 |
| 0.030 | 12.0 | 11.0 | 6.5 | 8.5 | 0.6 |
| 0.033 | 12.0 | 11.0 | 6.5 | 8.5 | 0.6 |
| 0.039 | 12.0 | 11.5 | 7.0 | 8.5 | 0.6 |
| 0.047 | 12.0 | 12.0 | 7.5 | 8.5 | 0.6 |
| 0.056 | 12.5 | 11.0 | 6.5 | 8.5 | 0.6 |
| 0.068 | 12.5 | 11.5 | 7.0 | 8.5 | 0.6 |
| 0.082 | 12.5 | 12.0 | 7.5 | 8.5 | 0.6 |
| 0.10 | 12.5 | 12.5 | 8.0 | 8.5 | 0.6 |
| 0.12 | 14.5 | 13.5 | 8.5 | 10.0 | 0.6 |
| 0.15 | 14.5 | 14.5 | 9.0 | 10.0 | 0.6 |
| 0.18 | 14.5 | 15.0 | 9.5 | 10.0 | 0.6 |
| 0.20 | 14.5 | 15.5 | 10.0 | 10.0 | 0.6 |
| 0.22 | 14.5 | 15.5 | 10.5 | 10.0 | 0.6 |
| 0.27 | 17.5 | 15.5 | 9.5 | 13.5 | 0.8 |
| 0.33 | 17.5 | 16.0 | 10.0 | 13.5 | 0.8 |
| 0.39 | 17.5 | 17.0 | 11.0 | 13.5 | 0.8 |
| 0.47 | 17.5 | 17.5 | 11.5 | 13.5 | 0.8 |

# CL20轴向金属化聚酯膜电容器



## CL20 AXIAL-TYPE METALLIZED POLYESTER FILM CAPACITORS

### ■外形图Outline Drawing





■特点

- 体积小，重量轻，自愈性能优异
- 外包聚酯胶带纸，两端灌注环氧树脂

■Features

- Small size, light weight, excellent self-healing property
- Wrapped with polyester adhesive tape and ends filled with epoxy resin

### ■主要技术参数 Main Technical Specifications

| 项目 Items | 性能要求 Characterstics |
|---|---|
| 引用标准 Reference Standard | GB7332(IEC60384-2) |
| 气候类别 Climatic Category | 40/100/21 |
| 额定温度 Rated Temperature | 85℃ |
| 工作温度范围 Operating Temperature Range | -55℃-105℃(+85℃ to +105℃:decreasing factor 1.25% per℃ for $V_R$(dc)) |
| 额定电压 Rated Voltage | 100V、250V、400V、630V、1000V |
| 电容量范围 Capacitance Range | 0.0010μF~10.0μF |
| 电容量偏差 Capacitance Tolerance | ±5%(J), ±10%(K), ±20%(M) |
| 耐电压 Voltage Proof | 1.6$U_R$(1~5s) |
| 损耗角正切 Dissipation Factor | ≤1.0%(20℃,1kHz) |
| 绝缘电阻 Insulation Resistance | ≥30000MΩ,$C_R$≤0.33Mf<br>≥10000s,$C_R$>0.33μF (20℃,1min) |

### ■外形尺寸Dimensions(mm)

| Dmax | Dmax<7 | 7≤Dmax<16 | Dmax≥16 |
|---|---|---|---|
| d±0.05 | 0.6 | 0.8 | 1.0 |

| $C_R$ (μF) | 100V | | 250V | | 400V | | 630V | | 1000V | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Dmax | Lmax | Dmax | Lmax | Dmax | Lmax | Dmax | Lmax | Dmax | Lmax |
| 0.0010 | | | | | | | 5.0 | 13.0 | 6.5 | 16.5 |
| 0.0015 | | | | | | | 5.0 | 13.0 | 6.5 | 16.5 |
| 0.0022 | | | | | | | 5.0 | 13.0 | 6.5 | 16.5 |
| 0.0033 | | | | | | | 5.0 | 13.0 | 6.5 | 16.5 |
| 0.0047 | | | | | | | 5.0 | 13.0 | 7.5 | 16.5 |
| 0.0068 | | | | | | | 5.0 | 13.0 | 8.0 | 20.5 |
| 0.010 | | | | | 5.0 | 13.0 | 5.5 | 16.5 | 7.5 | 20.5 |
| 0.015 | | | 5.0 | 13.0 | 5.5 | 16.5 | 5.5 | 16.5 | 8.5 | 20.5 |
| 0.022 | | | 5.0 | 13.0 | 5.5 | 16.5 | 6.5 | 16.5 | 9.5 | 28.0 |
| 0.033 | | | 5.0 | 13.0 | 5.5 | 16.5 | 6.5 | 20.5 | 8.5 | 28.0 |
| 0.047 | | | 5.0 | 13.0 | 6.0 | 16.5 | 6.5 | 20.5 | 9.5 | 28.0 |
| 0.068 | 5.0 | 13.0 | 5.5 | 16.5 | 6.5 | 20.5 | 8.0 | 20.5 | 11.0 | 28.0 |
| 0.10 | 5.0 | 13.0 | 5.5 | 16.5 | 6.5 | 20.5 | 8.0 | 28.0 | 13.0 | 33.0 |
| 0.15 | 6.0 | 16.5 | 6.0 | 16.5 | 6.5 | 20.5 | 9.0 | 28.0 | 14.0 | 33.0 |
| 0.22 | 6.5 | 16.5 | 6.5 | 16.5 | 9.0 | 28.0 | 11.0 | 28.0 | 16.0 | 33.0 |
| 0.33 | 7.5 | 16.5 | 7.0 | 20.5 | 9.5 | 28.0 | 11.5 | 33.0 | 19.0 | 33.0 |
| 0.47 | 8.0 | 16.5 | 8.5 | 20.5 | 9.5 | 28.0 | 13.5 | 33.0 | 22.0 | |
| 0.68 | 8.5 | 20.5 | 9.0 | 28.0 | 11.0 | 33.0 | 15.5 | 33.0 | | |
| 1.0 | 10.0 | 20.5 | 9.5 | 28.0 | 13.0 | 33.0 | 19.0 | 33.0 | | |
| 1.5 | 10.0 | 28.0 | 11.0 | 28.0 | 14.0 | 33.0 | | | | |
| 2.2 | 11.5 | 28.0 | 13.0 | 33.0 | 16.5 | 33.0 | | | | |
| 3.3 | 13.5 | 28.0 | 14.0 | 33.0 | 20.0 | 33.0 | | | | |
| 4.7 | 15.0 | 33.0 | 16.5 | 33.0 | | | | | | |
| 6.8 | 17.5 | 33.0 | 19.5 | 33.0 | | | | | | |
| 10.0 | 20.5 | 33.0 | | | | | | | | |

# CBB18(CBB13)型聚丙烯膜电容器

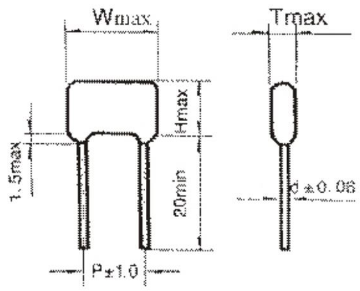


## CBB18 POLYPROPYLENE FILM CAPACITOR

- 结构：聚丙烯膜介质，无感结构，酚醛树脂包封。
- 特点：优异的频率和温度特性，即使在高频下，损耗也极小。
- 用途：适用于彩电S校正路等高频大电流场合，广泛用于高频、高压、直流和脉冲电路中
- 适用于电子镇流器和电源开关等高频振荡电路中
- 非标和特殊规格按用户要求生产

- Structures:Polypropylene film, non–inductive ,phenolic resin coating
- Features:Excellent frequency and temperature characteristics, Very small loss even at high frequency
- Application:Most suitable for high frequency, large current circuit and S–shaping correction in TV sets, Widely used in high frequency, high voltage , DC and pulse circuit.
- Used in electronic lighting ballasts and high voltager power, supplies of high frequency and high pulse rise time circuits.
- According to user's need, capacitor of nostandard and special specification can be produced.


### ■外形图Outline Drawing




### ■主要技术参数 Main Technical Specifications

| 项目<br>Items | 性能要求<br>Characterstics | |
|---|---|---|
| 标准<br>Standard | GB/T10188(IEC60384–13) | |
| 气候类别<br>Climatic Category | 40/105/21 | |
| 额定温度<br>Rated Temperature | 85℃ | |
| 工作温度范围<br>Operating Temperature Range | –55℃~+105℃(+85℃ to +105℃:decreasing factor 1.25% per℃ for $V_R$(dc)) | |
| 额定电压<br>Rated Voltage | 100V、160V、200V、250V、400V、630V | 1000V、1200V |
| 电容量范围<br>Capacitance Range | 0.001μF~0.47μF | 0.001μF~0.047μF |
| 电容量偏差<br>Capacitance Tolerance | ±2%(G)， ±5%(J), ±10%(K), ±20%(M) | |
| 耐电压<br>Voltage Proof | 2.5$U_R$(1~5s) | 2.0$U_R$(1~5s) |
| 绝缘电阻<br>Insulation Resistance | ≥50000MΩ,$C_R$≤0.1μF<br>≥5000s,$C_R$>0.1μF (20℃,1min) | ≥50000MΩ<br>(20℃,1min) |
| 损耗角正切<br>Dissipation Factor | ≤0.001(20℃,1kHz) | |

# CBB18(CBB13)型聚丙烯膜电容器 SD

## CBB18 POLYPROPYLENE FILM CAPACITOR

### ■外形尺寸Dimensions(mm)

| $C_R$ (μF) | 100V | | | | | 160V | | | | | 200V | | | | | 250V | | | | | 400V | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | W | H | T | P | d | W | H | T | P | d | W | H | T | P | d | W | H | T | P | d | W | H | T | P | d |
| 0.0010 | 11.0 | 10.0 | 6.0 | 5.5 | 0.5 | 11.0 | 10.0 | 5.0 | 5.5 | 0.5 | 16.0 | 11.0 | 6.0 | 10.0 | 0.6 | 14.0 | 11.0 | 7.0 | 7.5 | 0.5 | 14.0 | 12.0 | 6.0 | 8.0 | 0.5 |
| 0.0012 | 11.0 | 10.0 | 6.0 | 5.5 | 0.5 | 11.0 | 10.0 | 5.0 | 5.5 | 0.5 | 16.0 | 11.0 | 6.0 | 10.0 | 0.6 | 14.0 | 11.0 | 7.0 | 7.5 | 0.5 | 14.0 | 12.0 | 6.0 | 8.0 | 0.5 |
| 0.0015 | 11.0 | 10.0 | 6.0 | 5.5 | 0.5 | 11.0 | 10.0 | 5.0 | 5.5 | 0.5 | 16.0 | 11.0 | 6.0 | 10.0 | 0.6 | 14.0 | 11.0 | 7.0 | 7.5 | 0.5 | 14.0 | 12.0 | 6.0 | 8.0 | 0.5 |
| 0.0018 | 11.0 | 10.0 | 6.0 | 5.5 | 0.5 | 11.0 | 10.0 | 5.0 | 5.5 | 0.5 | 16.0 | 12.0 | 7.0 | 10.0 | 0.6 | 14.0 | 11.0 | 7.0 | 7.5 | 0.5 | 14.0 | 12.0 | 6.0 | 8.0 | 0.5 |
| 0.0022 | 11.0 | 10.0 | 6.0 | 5.5 | 0.5 | 11.0 | 10.0 | 5.0 | 5.5 | 0.5 | 16.0 | 12.0 | 7.0 | 10.0 | 0.6 | 14.0 | 11.0 | 7.0 | 7.5 | 0.5 | 14.0 | 12.0 | 6.0 | 8.0 | 0.5 |
| 0.0027 | 11.0 | 10.0 | 6.0 | 5.5 | 0.5 | 11.0 | 10.0 | 5.0 | 5.5 | 0.5 | 16.0 | 12.0 | 8.0 | 10.0 | 0.6 | 14.0 | 11.0 | 7.0 | 7.5 | 0.5 | 14.0 | 12.0 | 6.0 | 8.0 | 0.5 |
| 0.0033 | 11.0 | 10.0 | 6.0 | 5.5 | 0.5 | 11.0 | 11.0 | 6.0 | 5.5 | 0.5 | 16.0 | 13.0 | 8.0 | 10.0 | 0.6 | 14.0 | 11.0 | 7.0 | 7.5 | 0.5 | 14.0 | 12.0 | 7.0 | 8.0 | 0.5 |
| 0.0039 | 11.0 | 10.0 | 6.0 | 5.5 | 0.5 | 11.0 | 11.0 | 6.0 | 5.5 | 0.5 | 16.0 | 13.0 | 9.0 | 10.0 | 0.6 | 14.0 | 11.0 | 7.0 | 7.5 | 0.5 | 17.0 | 13.0 | 7.0 | 10.0 | 0.5 |
| 0.0047 | 11.0 | 10.0 | 6.0 | 5.5 | 0.5 | 11.0 | 11.0 | 7.0 | 5.5 | 0.5 | 16.0 | 13.0 | 9.0 | 10.0 | 0.6 | 14.0 | 12.0 | 9.0 | 7.5 | 0.5 | 17.0 | 13.0 | 7.0 | 10.0 | 0.5 |
| 0.0056 | 11.0 | 10.0 | 6.0 | 5.5 | 0.5 | 14.0 | 11.0 | 7.0 | 7.5 | 0.5 | 19.0 | 13.0 | 8.0 | 13.0 | 0.6 | 14.0 | 12.0 | 9.0 | 7.5 | 0.5 | 17.0 | 13.0 | 8.0 | 10.0 | 0.5 |
| 0.0068 | 11.0 | 10.0 | 6.5 | 5.5 | 0.5 | 14.0 | 12.0 | 7.0 | 7.5 | 0.5 | 19.0 | 13.0 | 8.0 | 13.0 | 0.6 | 14.0 | 13.0 | 10.0 | 7.5 | 0.5 | 17.0 | 13.0 | 8.0 | 10.0 | 0.6 |
| 0.0082 | 11.0 | 10.0 | 6.0 | 5.5 | 0.5 | 14.0 | 12.0 | 9.0 | 7.5 | 0.5 | 19.0 | 13.0 | 9.0 | 13.0 | 0.6 | 14.0 | 13.0 | 10.0 | 7.5 | 0.5 | 17.0 | 14.0 | 9.0 | 10.0 | 0.6 |
| 0.10 | 14.0 | 11.0 | 7.0 | 7.5 | 0.5 | 14.0 | 12.0 | 9.0 | 7.5 | 0.6 | 19.0 | 16.0 | 9.0 | 13.0 | 0.6 | 14.0 | 13.0 | 10.0 | 7.5 | 0.6 | 17.0 | 14.0 | 9.0 | 10.0 | 0.6 |
| 0.12 | 14.0 | 11.0 | 7.0 | 7.5 | 0.5 | 14.0 | 14.0 | 9.0 | 7.5 | 0.6 | 19.0 | 16.0 | 9.0 | 13.0 | 0.6 | 19.0 | 13.0 | 9.0 | 12.5 | 0.6 | 19.0 | 15.0 | 9.0 | 13.0 | 0.6 |
| 0.15 | 14.0 | 11.0 | 7.0 | 7.5 | 0.6 | 14.0 | 14.0 | 10.0 | 7.5 | 0.6 | 19.0 | 13.0 | 9.0 | 12.5 | 0.6 | 19.0 | 13.0 | 9.0 | 12.5 | 0.6 | 19.0 | 15.0 | 9.0 | 13.0 | 0.6 |
| 0.018 | 14.0 | 12.0 | 7.0 | 7.5 | 0.6 | 14.0 | 14.0 | 10.0 | 7.5 | 0.6 | 19.0 | 14.0 | 9.0 | 12.5 | 0.6 | 19.0 | 14.0 | 9.0 | 12.5 | 0.6 | 19.0 | 17.0 | 10.0 | 13.0 | 0.6 |
| 0.022 | 14.0 | 12.0 | 8.0 | 7.5 | 0.6 | 17.0 | 14.0 | 10.0 | 10.0 | 0.6 | 19.0 | 14.0 | 10.0 | 12.5 | 0.6 | 19.0 | 14.0 | 10.0 | 12.5 | 0.6 | 19.0 | 17.0 | 10.0 | 13.0 | 0.6 |
| 0.027 | 14.0 | 12.0 | 8.0 | 7.5 | 0.6 | 17.0 | 14.0 | 10.0 | 10.0 | 0.6 | 19.0 | 16.0 | 10.0 | 12.5 | 0.6 | 19.0 | 16.0 | 10.0 | 12.5 | 0.6 | 24.0 | 17.0 | 10.0 | 18.0 | 0.8 |
| 0.033 | 17.0 | 12.0 | 8.0 | 9.5 | 0.6 | 19.0 | 15.0 | 9.0 | 13.0 | 0.6 | 19.0 | 16.0 | 10.0 | 12.5 | 0.6 | 19.0 | 16.0 | 10.0 | 12.5 | 0.6 | 24.0 | 19.0 | 10.0 | 18.0 | 0.8 |
| 0.039 | 17.0 | 12.0 | 8.0 | 9.5 | 0.6 | 19.0 | 15.0 | 9.0 | 13.0 | 0.6 | 19.0 | 17.0 | 11.0 | 12.5 | 0.6 | 19.0 | 17.0 | 11.0 | 12.5 | 0.6 | 24.0 | 19.0 | 11.0 | 18.0 | 0.8 |
| 0.047 | 17.0 | 13.0 | 8.0 | 9.5 | 0.6 | 19.0 | 15.0 | 9.0 | 13.0 | 0.6 | 19.0 | 17.0 | 11.0 | 12.5 | 0.6 | 19.0 | 17.0 | 11.0 | 12.5 | 0.6 | 24.0 | 20.0 | 11.0 | 18.0 | 0.8 |
| 0.056 | 17.0 | 13.0 | 9.0 | 9.5 | 0.6 | 19.0 | 16.0 | 11.0 | 13.0 | 0.6 | 24.0 | 18.0 | 11.0 | 18.0 | 0.8 | 24.0 | 18.0 | 11.0 | 18.0 | 0.8 | 29.0 | 20.0 | 11.0 | 24.0 | 0.8 |
| 0.068 | 19.0 | 13.0 | 9.0 | 12.5 | 0.6 | 19.0 | 16.0 | 11.0 | 13.0 | 0.6 | 24.0 | 18.0 | 11.0 | 18.0 | 0.8 | 24.0 | 18.0 | 11.0 | 18.0 | 0.8 | 29.0 | 21.0 | 13.0 | 24.0 | 0.8 |
| 0.082 | 19.0 | 13.0 | 9.0 | 12.5 | 0.6 | 24.0 | 16.0 | 11.0 | 18.0 | 0.8 | 24.0 | 19.0 | 12.0 | 18.0 | 0.8 | 24.0 | 19.0 | 12.0 | 18.0 | 0.8 | 29.0 | 21.0 | 13.0 | 24.0 | 0.8 |
| 0.10 | 19.0 | 15.0 | 9.0 | 12.5 | 0.6 | 24.0 | 16.0 | 11.0 | 18.0 | 0.8 | 24.0 | 19.0 | 12.0 | 18.0 | 0.8 | 24.0 | 19.0 | 12.0 | 18.0 | 0.8 | 29.0 | 21.0 | 13.0 | 24.0 | 0.8 |
| 0.12 | 19.0 | 15.0 | 10.0 | 12.5 | 0.6 | 24.0 | 18.0 | 11.0 | 18.0 | 0.8 | 24.0 | 20.0 | 12.0 | 18.0 | 0.8 | 24.0 | 20.0 | 12.0 | 18.0 | 0.8 | 29.0 | 22.0 | 15.0 | 24.0 | 0.8 |
| 0.15 | 24.0 | 17.0 | 10.0 | 18.0 | 0.8 | 29.0 | 18.0 | 11.0 | 24.0 | 0.8 | 29.0 | 21.0 | 14.0 | 24.0 | 0.8 | 29.0 | 21.0 | 14.0 | 24.0 | 0.8 | 29.0 | 22.0 | 15.0 | 24.0 | 0.8 |
| 0.18 | 24.0 | 17.0 | 12.0 | 18.0 | 0.8 | 29.0 | 18.0 | 11.0 | 24.0 | 0.8 | 29.0 | 24.0 | 14.0 | 24.0 | 0.8 | 29.0 | 24.0 | 14.0 | 24.0 | 0.8 | | | | | |
| 0.22 | 24.0 | 17.0 | 12.0 | 18.0 | 0.8 | 29.0 | 21.0 | 12.0 | 24.0 | 0.8 | 29.0 | 24.0 | 14.0 | 24.0 | 0.8 | 29.0 | 24.0 | 14.0 | 24.0 | 0.8 | | | | | |
| 0.27 | 24.0 | 19.0 | 12.0 | 18.0 | 0.8 | 29.0 | 21.0 | 12.0 | 24.0 | 0.8 | 29.0 | 28.0 | 18.0 | 24.0 | 0.8 | 29.0 | 28.0 | 18.0 | 24.0 | 0.8 | | | | | |
| 0.33 | 29.0 | 19.0 | 13.0 | 24.0 | 0.8 | 29.0 | 23.0 | 14.0 | 24.0 | 0.8 | 29.0 | 28.0 | 18.0 | 24.0 | 0.8 | 29.0 | 28.0 | 18.0 | 24.0 | 0.8 | | | | | |
| 0.39 | 29.0 | 19.0 | 13.0 | 24.0 | 0.8 | 29.0 | 23.0 | 14.0 | 24.0 | 0.8 | 29.0 | 30.0 | 18.0 | 24.0 | 0.8 | 29.0 | 30.0 | 18.0 | 24.0 | 0.8 | | | | | |
| 0.47 | 29.0 | 19.0 | 13.0 | 24.0 | 0.8 | 29.0 | 25.0 | 16.0 | 24.0 | 0.8 | 29.0 | 32.0 | 20.0 | 24.0 | 0.8 | | | | | | | | | | |

| $C_R$ (μF) | 630V | | | | | 1000V | | | | | 1200V | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | W | H | T | P | d | W | H | T | P | d | W | H | T | P | d |
| 0.0010 | 16.0 | 11.0 | 6.0 | 10.0 | 0.6 | 25.0 | 18.0 | 10.0 | 18.5 | 0.6 | 25.0 | 18.0 | 11.0 | 18.5 | 0.8 |
| 0.0012 | 16.0 | 11.0 | 6.0 | 10.0 | 0.6 | 25.0 | 18.0 | 10.0 | 18.5 | 0.6 | 25.0 | 18.0 | 11.0 | 18.5 | 0.8 |
| 0.0015 | 16.0 | 11.0 | 6.0 | 10.0 | 0.6 | 25.0 | 18.0 | 11.0 | 18.5 | 0.8 | 25.0 | 18.0 | 11.0 | 18.5 | 0.8 |
| 0.0018 | 16.0 | 12.0 | 7.0 | 10.0 | 0.6 | 25.0 | 16.0 | 11.0 | 18.5 | 0.8 | 30.0 | 17.0 | 11.0 | 24.0 | 0.8 |
| 0.0022 | 16.0 | 12.0 | 7.0 | 10.0 | 0.6 | 25.0 | 16.0 | 12.0 | 18.5 | 0.8 | 30.0 | 17.0 | 12.0 | 24.0 | 0.8 |
| 0.0027 | 16.0 | 12.0 | 8.0 | 10.0 | 0.6 | 25.0 | 16.0 | 12.0 | 18.5 | 0.8 | 30.0 | 20.0 | 12.0 | 24.0 | 0.8 |
| 0.0033 | 16.0 | 13.0 | 8.0 | 10.0 | 0.6 | 25.0 | 17.0 | 13.0 | 18.5 | 0.8 | 30.0 | 20.0 | 14.0 | 24.0 | 0.8 |
| 0.0039 | 16.0 | 13.0 | 9.0 | 10.0 | 0.6 | 25.0 | 17.0 | 13.0 | 18.5 | 0.8 | 30.0 | 23.0 | 14.0 | 24.0 | 0.8 |
| 0.0047 | 16.0 | 13.0 | 9.0 | 10.0 | 0.6 | 25.0 | 18.0 | 13.0 | 18.5 | 0.8 | 30.0 | 23.0 | 17.0 | 24.0 | 0.8 |
| 0.0056 | 19.0 | 13.0 | 8.0 | 13.0 | 0.6 | 25.0 | 18.0 | 14.0 | 18.5 | 0.8 | 30.0 | 25.0 | 17.0 | 24.0 | 0.8 |
| 0.0068 | 19.0 | 13.0 | 8.0 | 13.0 | 0.6 | 25.0 | 18.0 | 14.0 | 18.5 | 0.8 | 35.0 | 24.0 | 18.0 | 29.5 | 0.8 |
| 0.0082 | 19.0 | 13.0 | 9.0 | 13.0 | 0.6 | 30.0 | 18.0 | 13.0 | 24.0 | 0.8 | 35.0 | 24.0 | 18.0 | 29.5 | 0.8 |
| 0.010 | 19.0 | 16.0 | 9.0 | 13.0 | 0.6 | 30.0 | 19.0 | 13.0 | 24.0 | 0.8 | 35.0 | 28.0 | 21.0 | 29.5 | 0.8 |
| 0.012 | 19.0 | 16.0 | 9.0 | 13.0 | 0.6 | 30.0 | 19.0 | 15.0 | 24.0 | 0.8 | 35.0 | 28.0 | 21.0 | 29.5 | 0.8 |
| 0.015 | 24.0 | 16.0 | 9.0 | 18.0 | 0.8 | 30.0 | 21.0 | 15.0 | 24.0 | 0.8 | | | | | |
| 0.18 | 24.0 | 16.0 | 10.0 | 18.0 | 0.8 | 30.0 | 21.0 | 16.0 | 24.0 | 0.8 | | | | | |
| 0.022 | 24.0 | 17.0 | 10.0 | 18.0 | 0.8 | 35.0 | 21.0 | 16.0 | 29.0 | 0.8 | | | | | |
| 0.027 | 24.0 | 17.0 | 11.0 | 18.0 | 0.8 | 35.0 | 21.0 | 18.0 | 29.0 | 0.8 | | | | | |
| 0.033 | 24.0 | 19.0 | 11.0 | 18.0 | 0.8 | 35.0 | 23.0 | 18.0 | 29.0 | 0.8 | | | | | |
| 0.039 | 24.0 | 19.0 | 12.0 | 18.0 | 0.8 | 35.0 | 23.0 | 20.0 | 29.0 | 0.8 | | | | | |
| 0.047 | 24.0 | 19.0 | 12.0 | 18.0 | 0.8 | 35.0 | 25.0 | 20.0 | 29.0 | 0.8 | | | | | |
| 0.056 | 29.0 | 21.0 | 13.0 | 25.0 | 0.8 | | | | | | | | | | |
| 0.068 | 29.0 | 21.0 | 13.0 | 25.0 | 0.8 | | | | | | | | | | |

# CBB22(A)/CBB21(A)型金属化聚丙烯薄膜电容器



## CBB22(A)/CBB21(A) METALLIZED POLYPROPYLENE FILM CAPACITOR

・特点：绝缘性能好，自愈效果佳，体积小，重量轻，容量稳定性好，高频损耗小。

・用途：适用于较大电流，广泛用于各种直流、脉动高频较大电流场合

・非标和特殊规格按用户要求生产

■Features：small size, light weight, high insulation resistance, good self–healing.

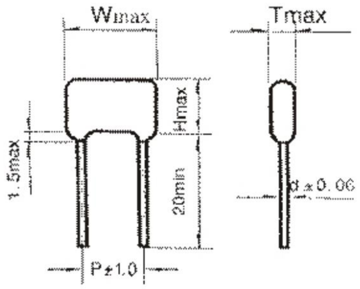
・Application:suitable for high current circuits and widely used in DC ulsating, high frequency and high current circuits.

・According to user's need, capacitor of nostandard and special specification can be produced.


## ■主要技术参数 Main Technical Specifications

| 项目<br>Items | 性能要求Characteristics |
|---|---|
| 标准<br>Standard | GB/T10190(IEC60384–16) |
| 气候类别<br>Climatic Category | 40/105/21 |
| 额定温度<br>Rated Temperature | 85℃ |
| 工作温度范围<br>Operating Temperature Range | –40℃~+105℃<br>(+85℃ to +105℃:decreasing factor 1.25% per℃ for $V_R$(dc)) |
| 额定电压<br>Rated Voltage | 250VDC、400VDC、630VDC |
| 电容量范围<br>Capacitance Range | 0.01μF~2.2μF |
| 电容量偏差<br>Capacitance Tolerance | ±5%(J), ±10%(K) |
| 耐电压<br>Voltage Proof | 2.0$U_R$(1~5S) |
| 绝缘电阻<br>Insulation Resistance | ≥25000MΩ,$C_R$≤0.33μF<br>≥7500s,$C_R$>0.33μF (20℃,1min) |
| 损耗角正切<br>Dissipation Factor | ≤0.001(1kHz)<br>≤0.002(10kHz) |

## ■外形图Outline Drawing




## ■外形尺寸Dimensions(mm)

| $C_R$ (μF) | 250Vdc(160Vac) | | | | | 400Vdc(200Vac) | | | | | 630Vdc(220Vac) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | W | H | T | P | d | W | H | T | P | d | W | H | T | P | d |
| 0.01 | | | | | | | | | | | 14.5 | 13.5 | 7.0 | 11.0 | 0.6 |
| 0.015 | | | | | | | | | | | 14.5 | 13.5 | 8.0 | 11.0 | 0.6 |
| 0.022 | | | | | | 13.0 | 10.0 | 6.0 | 10.0 | 0.6 | 14.5 | 13.5 | 8.0 | 11.0 | 0.6 |
| 0.033 | | | | | | 13.0 | 10.0 | 6.0 | 10.0 | 0.6 | 14.5 | 13.5 | 8.0 | 11.0 | 0.6 |
| 0.047 | 10.5 | 10.0 | 7.0 | 7.5 | 0.6 | 13.5 | 11.0 | 7.5 | 10.0 | 0.6 | 14.5 | 13.5 | 8.0 | 11.0 | 0.6 |
| 0.056 | 10.5 | 10.5 | 8.0 | 7.5 | 0.6 | 13.5 | 12.0 | 8.0 | 10.0 | 0.6 | 14.5 | 14.5 | 9.5 | 11.0 | 0.6 |
| 0.068 | 10.5 | 10.5 | 8.0 | 7.5 | 0.6 | 13.5 | 13.0 | 8.0 | 10.0 | 0.6 | 20.0 | 12.5 | 7.5 | 16.0 | 0.8 |
| 0.1 | 13.5 | 13.5 | 8.0 | 10.0 | 0.6 | 20.0 | 12.0 | 7.5 | 15.0 | 0.6 | 20.0 | 13.0 | 8.0 | 16.0 | 0.8 |
| 0.15 | 15.0 | 14.0 | 10.5 | 11.0 | 0.8 | 20.0 | 14.0 | 8.5 | 15.0 | 0.6 | 25.0 | 13.0 | 8.0 | 21.0 | 0.8 |
| 0.22 | 15.0 | 15.0 | 11.0 | 11.0 | 0.8 | 20.0 | 16.0 | 9.5 | 15.0 | 0.8 | 25.0 | 15.0 | 10.0 | 21.0 | 0.8 |
| 0.33 | 20.0 | 15.0 | 9.5 | 15.0 | 0.8 | 25.0 | 17.0 | 10.0 | 20.0 | 0.8 | 25.0 | 18.0 | 12.0 | 21.0 | 0.8 |
| 0.47 | 20.0 | 16.0 | 10.5 | 15.0 | 0.8 | 25.0 | 18.0 | 12.0 | 20.0 | 0.8 | 30.0 | 21.0 | 12.0 | 21.0 | 0.8 |
| 0.56 | 25.0 | 16.0 | 9.0 | 20.0 | 0.8 | 25.0 | 20.0 | 12.5 | 20.0 | 0.8 | 30.0 | 22.0 | 13.0 | 21.0 | 0.8 |
| 0.68 | 25.0 | 18.0 | 10.0 | 21.0 | 0.8 | 25.0 | 20.0 | 13.0 | 20.0 | 0.8 | 25.0 | 24.0 | 14.0 | 21.0 | 0.8 |
| 1.0 | 25.0 | 20.0 | 11.0 | 21.0 | 0.8 | 30.0 | 23.0 | 13.0 | 25.0 | 0.8 | 30.0 | 26.0 | 14.0 | 26.0 | 0.8 |
| 1.5 | 25.0 | 22.0 | 12.0 | 21.0 | 0.8 | 30.0 | 26.0 | 18.0 | 25.0 | 0.8 | | | | | |
| 2.2 | 30.0 | 25.0 | 15.0 | 26.0 | 0.8 | | | | | | | | | | |
| 3.3 | 30.0 | 25.0 | 15.0 | 26.0 | 0.8 | | | | | | | | | | |

# CBB22(A)/CBB21(A)型金属化聚丙烯薄膜电容器 SD

## CBB22(A)/CBB21(A) METALLIZED POLYPROPYLENE FILM CAPACITOR

| $C_R$ (μF) | 1000Vdc(250Vac) | | | | |
|---|---|---|---|---|---|
| | W | H | T | P | d |
| 0.00047 | 7.0 | 6.5 | 3.4 | 5.0 | 0.5 |
| 0.00056 | 7.0 | 6.8 | 3.7 | 5.0 | 0.5 |
| 0.00068 | 7.0 | 6.6 | 3.5 | 5.0 | 0.5 |
| 0.00082 | 7.0 | 6.9 | 3.8 | 5.0 | 0.5 |
| 0.001 | 7.0 | 6.7 | 3.6 | 5.0 | 0.5 |
| 0.0012 | 7.0 | 6.9 | 3.8 | 5.0 | 0.5 |
| 0.0015 | 7.0 | 6.7 | 3.6 | 5.0 | 0.5 |
| 0.0018 | 7.0 | 6.9 | 3.8 | 5.0 | 0.5 |
| 0.001 | 9.5 | 7.5 | 3.7 | 7.5 | 0.6 |
| 0.0012 | 9.5 | 7.8 | 4.0 | 7.5 | 0.6 |
| 0.0015 | 9.5 | 8.1 | 4.4 | 7.5 | 0.6 |
| 0.0018 | 9.5 | 7.4 | 3.6 | 7.5 | 0.6 |
| 0.0022 | 9.5 | 7.7 | 3.9 | 7.5 | 0.6 |
| 0.0027 | 9.5 | 7.4 | 3.6 | 7.5 | 0.6 |
| 0.0033 | 9.5 | 7.7 | 3.9 | 7.5 | 0.6 |
| 0.0039 | 9.5 | 8.0 | 4.2 | 7.5 | 0.6 |
| 0.0047 | 9.5 | 8.4 | 4.6 | 7.5 | 0.6 |
| 0.0056 | 9.5 | 8.8 | 5.0 | 7.5 | 0.6 |
| 0.0068 | 9.5 | 9.3 | 5.4 | 7.5 | 0.6 |
| 0.001 | 12.0 | 8.5 | 3.9 | 10.0 | 0.6 |
| 0.0012 | 12.0 | 8.8 | 4.2 | 10.0 | 0.6 |
| 0.0015 | 12.0 | 9.2 | 4.6 | 10.0 | 0.6 |
| 0.0018 | 12.0 | 9.2 | 4.6 | 10.0 | 0.6 |
| 0.0022 | 12.0 | 9.7 | 5.0 | 10.0 | 0.6 |
| 0.0027 | 12.0 | 9.1 | 4.4 | 10.0 | 0.6 |
| 0.0033 | 12.0 | 9.5 | 4.9 | 10.0 | 0.6 |
| 0.0039 | 12.0 | 9.2 | 4.6 | 10.0 | 0.6 |
| 0.0047 | 12.0 | 9.6 | 5.0 | 10.0 | 0.6 |
| 0.0056 | 12.0 | 9.3 | 4.6 | 10.0 | 0.6 |
| 0.0068 | 12.0 | 9.7 | 5.1 | 10.0 | 0.6 |
| 0.0082 | 12.0 | 9.2 | 4.6 | 10.0 | 0.6 |
| 0.01 | 12.0 | 9.7 | 5.1 | 10.0 | 0.6 |
| 0.012 | 12.0 | 10.2 | 5.6 | 10.0 | 0.6 |
| 0.015 | 12.0 | 10.9 | 6.2 | 10.0 | 0.6 |
| 0.018 | 12.0 | 11.5 | 6.8 | 10.0 | 0.6 |
| 0.01 | 17.3 | 9.9 | 4.5 | 15.0 | 0.6 |
| 0.012 | 17.3 | 10.3 | 4.9 | 15.0 | 0.6 |
| 0.015 | 17.3 | 10.9 | 5.4 | 15.0 | 0.6 |
| 0.018 | 17.3 | 10.4 | 4.9 | 15.0 | 0.6 |
| 0.022 | 17.7 | 10.9 | 5.4 | 15.0 | 0.8 |
| 0.027 | 17.7 | 11.5 | 6.0 | 15.0 | 0.8 |
| 0.033 | 17.7 | 12.2 | 6.7 | 15.0 | 0.8 |
| 0.039 | 17.7 | 12.8 | 7.3 | 15.0 | 0.8 |
| 0.047 | 17.7 | 13.6 | 8.1 | 15.0 | 0.8 |
| 0.056 | 17.7 | 15.3 | 8.2 | 15.0 | 0.8 |
| 0.047 | 25.5 | 12.5 | 5.4 | 22.5 | 0.8 |
| 0.056 | 25.5 | 13.1 | 6.0 | 22.5 | 0.8 |
| 0.068 | 25.5 | 13.8 | 6.6 | 22.5 | 0.8 |
| 0.082 | 25.5 | 15.6 | 6.8 | 22.5 | 0.8 |
| 0.1 | 25.5 | 16.4 | 7.6 | 22.5 | 0.8 |
| 0.12 | 25.5 | 17.3 | 8.5 | 22.5 | 0.8 |
| 0.15 | 25.5 | 18.5 | 9.6 | 22.5 | 0.8 |
| 0.18 | 25.5 | 19.6 | 10.7 | 22.5 | 0.8 |
| 0.22 | 25.5 | 20.9 | 12.0 | 22.5 | 0.8 |
| 0.27 | 25.5 | 23.4 | 12.8 | 22.5 | 0.8 |
| 0.1 | 30.7 | 16.5 | 6.1 | 22.5 | 0.8 |
| 0.12 | 30.7 | 17.2 | 6.8 | 22.5 | 0.8 |
| 0.15 | 30.7 | 18.2 | 7.8 | 22.5 | 0.8 |
| 0.18 | 30.7 | 19.1 | 8.7 | 22.5 | 0.8 |
| 0.22 | 30.7 | 20.2 | 9.8 | 22.5 | 0.8 |
| 0.27 | 30.7 | 21.5 | 11.0 | 22.5 | 0.8 |
| 0.33 | 30.7 | 23.0 | 12.4 | 22.5 | 0.8 |
| 0.33 | 30.7 | 23.0 | 12.4 | 22.5 | 0.8 |
| 0.39 | 30.7 | 24.3 | 13.7 | 22.5 | 0.8 |
| 0.47 | 30.7 | 25.9 | 15.3 | 22.5 | 0.8 |
| 0.56 | 30.7 | 28.5 | 16.2 | 22.5 | 0.8 |

| $C_R$ (μF) | 1250Vdc(400Vac) | | | | |
|---|---|---|---|---|---|
| | W | H | T | P | d |
| 0.001 | 9.5 | 7.8 | 4.0 | 7.5 | 0.6 |
| 0.0012 | 9.5 | 8.1 | 4.3 | 7.5 | 0.6 |
| 0.0015 | 9.5 | 8.5 | 4.7 | 7.5 | 0.6 |
| 0.0018 | 9.5 | 8.3 | 4.5 | 7.5 | 0.6 |
| 0.0022 | 9.5 | 8.7 | 4.9 | 7.5 | 0.6 |
| 0.0027 | 9.5 | 9.2 | 5.4 | 7.5 | 0.6 |
| 0.001 | 12.0 | 8.7 | 4.1 | 10.0 | 0.6 |
| 0.0012 | 12.0 | 9.0 | 4.4 | 10.0 | 0.6 |
| 0.0015 | 12.0 | 9.5 | 4.8 | 10.0 | 0.6 |
| 0.0018 | 12.0 | 9.5 | 4.9 | 10.0 | 0.6 |
| 0.0022 | 12.0 | 10.0 | 5.3 | 10.0 | 0.6 |
| 0.0027 | 12.0 | 9.3 | 4.7 | 10.0 | 0.6 |
| 0.0033 | 12.0 | 9.8 | 5.1 | 10.0 | 0.6 |
| 0.0039 | 12.0 | 9.5 | 4.8 | 10.0 | 0.6 |
| 0.0047 | 12.0 | 9.9 | 5.3 | 10.0 | 0.6 |
| 0.0056 | 12.0 | 10.4 | 5.7 | 10.0 | 0.6 |
| 0.0068 | 12.0 | 11.0 | 6.3 | 10.0 | 0.6 |
| 0.0082 | 12.0 | 11.6 | 6.9 | 10.0 | 0.6 |
| 0.01 | 17.3 | 10.7 | 5.2 | 15.0 | 0.6 |
| 0.012 | 17.7 | 11.2 | 5.7 | 15.0 | 0.8 |
| 0.015 | 17.7 | 11.9 | 6.4 | 15.0 | 0.8 |
| 0.018 | 17.7 | 12.5 | 7.0 | 15.0 | 0.8 |
| 0.022 | 17.7 | 13.3 | 7.8 | 15.0 | 0.8 |
| 0.027 | 17.7 | 15.2 | 8.0 | 15.0 | 0.8 |
| 0.033 | 17.7 | 16.1 | 9.0 | 15.0 | 0.8 |
| 0.039 | 17.7 | 17.0 | 9.8 | 22.5 | 0.8 |
| 0.033 | 25.5 | 13.7 | 6.6 | 22.5 | 0.8 |
| 0.039 | 25.5 | 14.3 | 7.2 | 22.5 | 0.8 |
| 0.047 | 25.5 | 15.1 | 8.0 | 22.5 | 0.8 |
| 0.056 | 25.5 | 15.9 | 8.7 | 22.5 | 0.8 |
| 0.068 | 25.5 | 16.9 | 9.7 | 22.5 | 0.8 |
| 0.082 | 25.5 | 19.0 | 10.1 | 22.5 | 0.8 |
| 0.1 | 25.5 | 20.2 | 11.3 | 22.5 | 0.8 |
| 0.12 | 25.5 | 21.5 | 12.6 | 22.5 | 0.8 |
| 0.15 | 25.5 | 24.1 | 13.6 | 27.5 | 0.8 |
| 0.068 | 30.7 | 17.8 | 7.4 | 27.5 | 0.8 |
| 0.082 | 30.7 | 18.7 | 8.2 | 27.5 | 0.8 |
| 0.1 | 30.7 | 19.7 | 9.2 | 27.5 | 0.8 |
| 0.12 | 30.7 | 20.7 | 10.3 | 27.5 | 0.8 |
| 0.15 | 30.7 | 22.2 | 11.7 | 27.5 | 0.8 |
| 0.18 | 30.7 | 23.6 | 13.0 | 27.5 | 0.8 |
| 0.22 | 30.7 | 25.2 | 14.6 | 27.5 | 0.8 |
| 0.27 | 30.7 | 28.0 | 15.8 | 27.5 | 0.8 |
| 0.33 | 30.7 | 30.1 | 17.8 | 27.5 | 0.8 |

| $C_R$ (μF) | 1600Vdc(500Vac) | | | | |
|---|---|---|---|---|---|
| | W | H | T | P | d |
| 0.001 | 17.7 | 11.0 | 5.5 | 15.0 | 0.8 |
| 0.0012 | 17.7 | 11.5 | 6.0 | 15.0 | 0.8 |
| 0.0015 | 17.7 | 11.3 | 5.9 | 15.0 | 0.8 |
| 0.0018 | 17.7 | 11.0 | 5.5 | 15.0 | 0.8 |
| 0.0022 | 17.7 | 11.5 | 6.1 | 15.0 | 0.8 |
| 0.0027 | 17.7 | 11.1 | 5.7 | 15.0 | 0.8 |
| 0.0033 | 17.7 | 11.7 | 6.2 | 15.0 | 0.8 |
| 0.0039 | 17.7 | 11.0 | 5.6 | 15.0 | 0.8 |
| 0.0047 | 17.7 | 11.6 | 6.1 | 15.0 | 0.8 |
| 0.0056 | 17.7 | 12.1 | 6.7 | 15.0 | 0.8 |
| 0.0068 | 17.7 | 13.9 | 6.7 | 15.0 | 0.8 |
| 0.0082 | 17.7 | 14.6 | 7.4 | 15.0 | 0.8 |
| 0.01 | 17.7 | 15.4 | 8.3 | 15.0 | 0.8 |
| 0.012 | 17.7 | 16.3 | 9.1 | 15.0 | 0.8 |
| 0.012 | 25.5 | 13.4 | 6.3 | 22.5 | 0.8 |
| 0.015 | 25.5 | 14.2 | 7.0 | 22.5 | 0.8 |
| 0.018 | 25.5 | 14.9 | 7.7 | 22.5 | 0.8 |
| 0.022 | 25.5 | 15.8 | 8.6 | 22.5 | 0.8 |
| 0.027 | 25.5 | 16.8 | 9.6 | 22.5 | 0.8 |
| 0.033 | 25.5 | 18.9 | 10.1 | 22.5 | 0.8 |
| 0.039 | 25.5 | 19.9 | 11.0 | 22.5 | 0.8 |
| 0.047 | 25.5 | 21.1 | 12.3 | 22.5 | 0.8 |
| 0.056 | 25.5 | 23.4 | 12.9 | 22.5 | 0.8 |
| 0.027 | 30.7 | 17.6 | 7.2 | 22.5 | 0.8 |
| 0.033 | 30.7 | 18.4 | 8.0 | 22.5 | 0.8 |
| 0.039 | 30.7 | 19.3 | 8.8 | 22.5 | 0.8 |
| 0.047 | 30.7 | 20.3 | 9.8 | 22.5 | 0.8 |
| 0.056 | 30.7 | 21.4 | 10.9 | 22.5 | 0.8 |
| 0.068 | 30.7 | 22.7 | 12.1 | 22.5 | 0.8 |
| 0.082 | 30.7 | 24.1 | 13.5 | 22.5 | 0.8 |
| 0.1 | 30.7 | 25.8 | 15.2 | 22.5 | 0.8 |
| 0.12 | 30.7 | 28.4 | 16.1 | 22.5 | 0.8 |

| CR (μF) | 2000Vdc(700Vdc) | | | | |
|---|---|---|---|---|---|
| | W | H | T | P | d |
| 0.001 | 18.5 | 8.0 | 14.0 | 15.0 | 0.6 |
| 0.0022 | 18.5 | 8.0 | 14.0 | 15.0 | 0.6 |
| 0.0033 | 18.5 | 8.0 | 14.0 | 15.0 | 0.6 |
| 0.0047 | 18.5 | 9.0 | 14.5 | 15.0 | 0.6 |
| 0.0056 | 18.5 | 10.0 | 15.5 | 15.0 | 0.6 |
| 0.0068 | 18.5 | 11.0 | 16.0 | 15.0 | 0.6 |
| 0.0075 | 18.5 | 12.0 | 16.5 | 15.0 | 0.6 |
| 0.0082 | 18.5 | 13.0 | 17.5 | 15.0 | 0.6 |
| 0.01 | 18.5 | 14.0 | 18.5 | 15.0 | 0.8 |

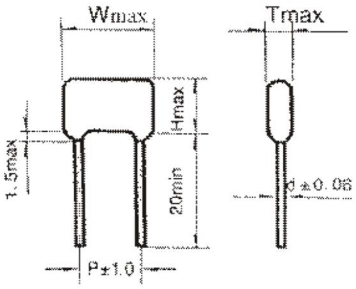
# CBB28型无感双面金属化聚丙希膜电容器 SD

## CBB28 NON-INDUCTIVE DOUBLE SIDED METALLIZED POLYPROPYLENE FILM CAPACITOR

•结构：双面金属化膜作电极，聚丙膜做介质，无感式结构。
•特点：具有金属化电容器的自愈性和箔式电容器耐大电流特性，容量损耗随温度频率具有高稳定性、安全性，寿命长，高耐压，高频，宽温。
•用途：适用于长寿命节能灯、电子填流器等的高频大电流电路中。
•非标和特殊规格按用户要求生产

• Structures: Take double side metauized film as electrode polypropylene film, non-inductive.
• Features: The performance of self-cure, highly reliable,Large-current loadling, high-frequency performance,High-safely, long life, wide temeperature.
• Application: Extensively apply to long life energy-saving Lamps and electronic lighting ballasts.
• According to user's need, capacitor of nostandard and special specification can be produced.


## ■外形图 Outline Drawing




## ■主要技术参数 Main Technical Specifications

| 项目 Items | 性能要求 Characterstics |
|---|---|
| 标准 Standard | GB/T 10188(IEC60384-13) |
| 气候类别 Climatic Category | 40/105/21 |
| 额定温度 Rated Temperature | 85℃ |
| 工作温度范围 Operating Temperature Range | -45℃~+105℃(+85℃ to +105℃:decreasing factor 1.25% per℃ for $V_R$(dc)) |
| 额定电压 Rated Voltage | 630V、1000V、1200V |
| 电容量范围 Capacitance Range | 0.001μF~0.015μF |
| 电容量偏差 Capacitance Tolerance | ±5%(J), ±10%K() |
| 耐电压 Voltage Proof | $2U_R$(1~5S) |
| 绝缘电阻 Insulation Resistance | ≥50000MΩ(20℃ 500V 1min) |
| 损耗角正切 Dissipation Factor | ≤0.001(20℃,1kHz)<br>≤0.002(20℃,10kHz) |

# CBB28型无感双面金属化聚丙希膜电容器 SD

## CBB28 NON-INDUCTIVE DOUBLE SIDED METALLIZED POLYPROPYLENE FILM CAPACITOR

■外形尺寸 Dimensions(mm)

| $C_R$ (μF) | 630VDC | | | | | 1000V DC | | | | | 1200V DC | | | | | 1600V DC | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | W | H | T | P | d | W | H | T | P | d | W | H | T | P | d | W | H | T | P | d |
| 0.001 | 15.0 | 11.0 | 6.0 | 10.0 | 0.6 | 16.0 | 12.0 | 7.0 | 10.0 | 0.6 | 16.0 | 15.0 | 8.0 | 10.0 | 0.8 | 25.0 | 18.0 | 11.0 | 10.0 | 0.6 |
| 0.0022 | 15.0 | 12.0 | 7.0 | 10.0 | 0.6 | 16.0 | 13.0 | 75.0 | 10.0 | 0.6 | 16.0 | 16.0 | 10.0 | 10.0 | 0.8 | 25.0 | 17.0 | 12.0 | 10.0 | 0.6 |
| 0.0033 | 15.0 | 12.5 | 7.5 | 10.0 | 0.6 | 16.0 | 13.5 | 8.0 | 10.0 | 0.8 | 20.0 | 16.0 | 10.0 | 12.5 | 0.8 | 25.0 | 20.0 | 14.0 | 10.0 | 0.8 |
| 0.0047 | 15.0 | 13.5 | 8.0 | 10.0 | 0.6 | 16.0 | 13.5 | 9.0 | 10.0 | 0.8 | 21.0 | 16.0 | 10.0 | 12.5 | 0.8 | 30.0 | 23.0 | 17.0 | 10.0 | 0.8 |
| 0.0056 | 15.0 | 13.5 | 9.0 | 10.0 | 0.6 | 16.0 | 14.0 | 9.5 | 10.0 | 0.8 | 21.0 | 16.0 | 10.5 | 12.5 | 0.8 | 30.0 | 25.0 | 17.0 | 10.0 | 0.8 |
| 0.0068 | 15.0 | 13.5 | 9.5 | 10.0 | 0.6 | 16.0 | 14.0 | 10.0 | 10.0 | 0.8 | 22.0 | 16.0 | 11.0 | 15.0 | 0.8 | 30.0 | 24.0 | 18.0 | 10.0 | 0.8 |
| 0.0075 | 15.0 | 14.0 | 9.5 | 10.0 | 0.6 | 16.0 | 15.0 | 10.0 | 10.0 | 0.8 | 22.0 | 16.5 | 12.0 | 15.0 | 0.8 | 30.0 | 25.0 | 18.0 | 10.0 | 0.8 |
| 0.0082 | 15.0 | 14.0 | 10.0 | 10.0 | 0.6 | 16.0 | 15.0 | 10.5 | 10.0 | 0.8 | 22.0 | 17.0 | 12.0 | 15.0 | 0.8 | 35.0 | 28.0 | 18.0 | 15.0 | 0.8 |
| 0.01 | 15.5 | 14.5 | 10.0 | 10.0 | 0.6 | 20.0 | 13.0 | 10.5 | 15.0 | 0.8 | 22.0 | 17.0 | 12.5 | 15.0 | 0.8 | 35.0 | 28.0 | 21.0 | 15.0 | 0.8 |
| 0.012 | 20.0 | 14.0 | 9.0 | 15.0 | 0.6 | 20.0 | 15.0 | 11.0 | 15.0 | 0.8 | | | | | | | | | | |
| 0.015 | 20.0 | 14.0 | 9.5 | 15.0 | 0.8 | | | | | | | | | | | | | | | |

# CBB81(A)型高压金属化聚丙烯膜电容器

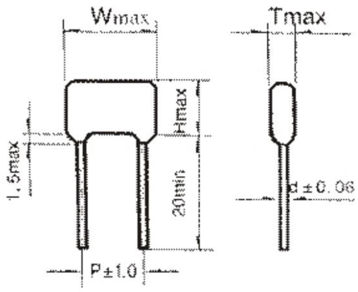


## CBB81(A) HIGH-VOLTAGE METALLIZED SERIES POLYPROPYLENE FILM CAPCITOR

•结构：金属化聚丙烯膜、聚丙烯膜介质、金属箔，阻燃环氧树脂包封。
•特点：具体体积小，可靠性高和承受大电流、高频率的特点，损耗极小，内部温度升小，绝缘电阻高，负容量温度系数，且恒定。
•用途：适用于彩电行回扫逆的程的高压、脉冲电路，电子镇流器和电源开关等高频振荡电路中。
•非标和特殊规格按用户要求生产。

• Structures:Metallized polypropylene,polypropylene film,metal foil,flame retardant epoxy resin coating.
•Features:Excellent small size, highly reliable,large-current loading and high-frepuency performance,Very low loss,small inherent temperature rise,High insulation resistance Temperature coefficient of capacitance is negative and almost constant.
Application:Most suitable for high voltage and pulse in the horizongtal resonance circuit of colour TV sets,electronic lighting ballasts and high voltager power supplies of high frequenly and high pulse rise time circuits.
•According to user's need,capacitor of nostandard and special specification can be produced.


## ■外形图 Outline Drawing




## ■主要技术参数 Main Technical Specifications

| 项目 Items | 性能要求 Characterstics |
|---|---|
| 标准 Standard | GB/T14579(IEC60384-17) |
| 气候类别 Climatic Category | 40/105/21 |
| 额定温度 Rated Temperature | 85℃ |
| 工作温度范围 Operating Temperature Range | -45℃~+105℃(+85℃ to +105℃:decreasing factor 1.25% per℃ for $V_R$(dc)) |
| 额定电压 Rated Voltage | 630V、1000V、1250V、1600V、2000Vdc |
| 电容量范围 Capacitance Range | 0.01~0.036μF |
| 电容量偏差 Capacitance Tolerance | ±3%(H)，±5%（J），±10%（K） |
| 耐电压 Voltage Proof | $2U_R$（1~5S） |
| 绝缘电阻 Insulation Resistance | ≥50000MΩ(20℃，1min) |
| 损耗角正切 Dissipation Factor | ≤0.001(20℃,1kHz)<br>≤0.002(20℃,10kHz) |

# CBB81(A)型高压金属化聚丙烯膜电容器 SD

## CBB81(A) HIGH-VOLTAGE METALLIZED SERIES POLYPROPYLENE FILM CAPCITOR

### CBB81

| $C_R$ (μF) | 1000Vdc(400Vac) | | | | |
|---|---|---|---|---|---|
| | W | H | T | P | d |
| 0.001 | 18.5 | 13.0 | 6.0 | 15.0 | 0.6 |
| 0.0012 | 18.5 | 13.0 | 6.0 | 15.0 | 0.6 |
| 0.0015 | 18.5 | 13.0 | 6.0 | 15.0 | 0.6 |
| 0.0018 | 18.5 | 13.0 | 6.0 | 15.0 | 0.6 |
| 0.0022 | 18.5 | 13.0 | 6.0 | 15.0 | 0.6 |
| 0.0033 | 18.5 | 14.0 | 7.0 | 15.0 | 0.6 |
| 0.0047 | 18.5 | 14.5 | 7.5 | 15.0 | 0.6 |
| 0.0056 | 18.5 | 15.0 | 8.0 | 15.0 | 0.6 |
| 0.0068 | 18.5 | 15.5 | 8.5 | 15.0 | 0.6 |
| 0.0082 | 18.5 | 16.0 | 9.0 | 15.0 | 0.6 |
| 0.01 | 24.5 | 18.0 | 12.0 | 21.0 | 0.8 |
| 0.015 | 24.5 | 18.0 | 12.0 | 21.0 | 0.8 |
| 0.018 | 24.5 | 18.0 | 12.0 | 21.0 | 0.8 |
| 0.022 | 24.5 | 19.0 | 13.0 | 21.0 | 0.8 |
| 0.033 | 24.5 | 20.0 | 14.0 | 21.0 | 0.8 |
| 0.047 | 24.5 | 21.0 | 15.0 | 21.0 | 0.8 |

| $C_R$ (μF) | 1250Vdc(400Vac) | | | | |
|---|---|---|---|---|---|
| | W | H | T | P | d |
| 0.0022 | 18.5 | 13.5 | 8.0 | 15.0 | 0.6 |
| 0.0027 | 18.5 | 14.0 | 8.5 | 15.0 | 0.6 |
| 0.003 | 18.5 | 14.5 | 9.0 | 15.0 | 0.6 |
| 0.0033 | 18.5 | 15.0 | 9.5 | 15.0 | 0.6 |
| 0.0039 | 18.5 | 15.5 | 10.0 | 15.0 | 0.6 |
| 0.0047 | 18.5 | 16.0 | 10.5 | 15.0 | 0.6 |
| 0.0056 | 18.5 | 16.5 | 11.0 | 15.0 | 0.6 |
| 0.0068 | 18.5 | 17.0 | 11.5 | 15.0 | 0.6 |
| 0.0082 | 18.5 | 17.5 | 12.0 | 15.0 | 0.6 |
| 0.01 | 18.5 | 18.0 | 12.5 | 15.0 | 0.6 |
| 0.012 | 18.5 | 18.5 | 13.0 | 15.0 | 0.6 |
| 0.015 | 24.5 | 16.5 | 9.5 | 21.0 | 0.8 |
| 0.018 | 24.5 | 17.5 | 10.5 | 21.0 | 0.8 |
| 0.022 | 24.5 | 19.5 | 11.5 | 21.0 | 0.8 |
| 0.027 | 24.5 | 20.5 | 13.5 | 21.0 | 0.8 |
| 0.033 | 28.5 | 21.0 | 14.0 | 25.0 | 0.8 |

| $C_R$ (μF) | 1600~2000Vdc(500Vac) | | | | |
|---|---|---|---|---|---|
| | W | H | T | P | d |
| 0.001 | 18.5 | 15.0 | 6.0 | 15.0 | 0.6 |
| 0.0012 | 18.5 | 15.0 | 6.0 | 15.0 | 0.6 |
| 0.0015 | 18.5 | 15.0 | 6.0 | 15.0 | 0.6 |
| 0.0018 | 18.5 | 16.0 | 7.0 | 15.0 | 0.6 |
| 0.0022 | 18.5 | 16.0 | 7.0 | 15.0 | 0.6 |
| 0.0027 | 18.5 | 16.5 | 8.0 | 15.0 | 0.6 |
| 0.0033 | 18.5 | 17.0 | 8.5 | 15.0 | 0.6 |
| 0.0039 | 18.5 | 17.5 | 9.0 | 15.0 | 0.6 |
| 0.0047 | 18.5 | 17.5 | 9.5 | 15.0 | 0.6 |
| 0.0056 | 18.5 | 18.0 | 10.0 | 15.0 | 0.6 |
| 0.0068 | 18.5 | 18.0 | 11.0 | 15.0 | 0.6 |
| 0.0082 | 18.5 | 18.5 | 12.0 | 15.0 | 0.6 |
| 0.0068 | 24.5 | 21.5 | 14.0 | 21.0 | 0.8 |
| 0.0075 | 24.5 | 22.0 | 14.5 | 21.0 | 0.8 |
| 0.0082 | 24.5 | 22.5 | 15.0 | 21.0 | 0.8 |
| 0.0091 | 24.5 | 23.0 | 15.5 | 21.0 | 0.8 |
| 0.01 | 24.5 | 23.5 | 16.0 | 21.0 | 0.8 |
| 0.012 | 24.5 | 24.0 | 16.5 | 21.0 | 0.8 |
| 0.015 | 24.5 | 24.5 | 17.0 | 21.0 | 0.8 |

### CBB81A

| $C_R$ (μF) | 630Vdc(250Vac) | | | | |
|---|---|---|---|---|---|
| | W | H | T | P | d |
| 0.001 | 9.5 | 8.5 | 4.5 | 7.5 | 0.6 |
| 0.0012 | 9.5 | 9.0 | 5.5 | 7.5 | 0.6 |
| 0.0015 | 9.5 | 9.0 | 6.0 | 7.5 | 0.6 |
| 0.0018 | 9.5 | 9.5 | 6.5 | 7.5 | 0.6 |
| 0.0022 | 9.5 | 9.0 | 7.0 | 7.5 | 0.6 |
| 0.0033 | 9.5 | 10.5 | 7.0 | 7.5 | 0.6 |
| 0.015 | 13.5 | 13.5 | 9.5 | 10.0 | 0.6 |

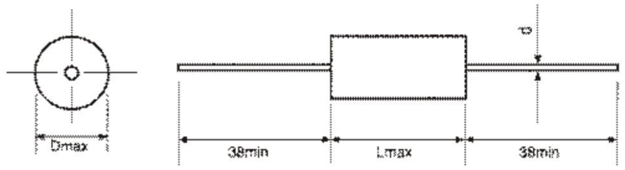
| $C_R$ (μF) | 1000~1250Vdc(400Vac) | | | | |
|---|---|---|---|---|---|
| | W | H | T | P | d |
| 0.001 | 13.5 | 11.5 | 5.5 | 10.0 | 0.6 |
| 0.0015 | 13.5 | 12.0 | 6.0 | 10.0 | 0.6 |
| 0.0022 | 13.5 | 12.0 | 6.5 | 10.0 | 0.6 |
| 0.0027 | 13.5 | 12.0 | 6.0 | 10.0 | 0.6 |
| 0.0033 | 13.5 | 12.5 | 6.5 | 10.0 | 0.6 |
| 0.0039 | 13.5 | 12.5 | 6.5 | 10.0 | 0.6 |
| 0.0047 | 13.5 | 13.0 | 7.0 | 10.0 | 0.6 |
| 0.0056 | 13.5 | 13.0 | 7.0 | 10.0 | 0.6 |
| 0.0068 | 13.5 | 13.5 | 7.5 | 10.0 | 0.6 |
| 0.0082 | 18.5 | 15.0 | 10.0 | 15.0 | 0.6 |
| 0.01 | 18.5 | 16.0 | 11.0 | 15.0 | 0.6 |
| 0.012 | 18.5 | 16.5 | 11.5 | 15.0 | 0.6 |
| 0.015 | 18.5 | 17.0 | 12.0 | 15.0 | 0.6 |
| 0.022 | 18.5 | 18.0 | 13.0 | 15.0 | 0.6 |
| 0.033 | 24.5 | 18.0 | 13.0 | 20.0 | 0.8 |
| 0.047 | 24.5 | 19.0 | 14.0 | 20.0 | 0.8 |
| 0.056 | 24.5 | 20.0 | 15.0 | 20.0 | 0.8 |
| 0.068 | 24.5 | 21.0 | 16.0 | 20.0 | 0.8 |
| 0.082 | 24.5 | 22.0 | 17.0 | 20.0 | 0.8 |
| 0.1 | 31.5 | 18.0 | 13.0 | 27.5 | 0.8 |
| 0.15 | 31.5 | 19.0 | 14.0 | 27.5 | 0.8 |
| 0.22 | 31.5 | 21.0 | 16.0 | 27.5 | 0.8 |
| 0.33 | 31.5 | 24.0 | 19.0 | 27.5 | 0.8 |
| 0.47 | 31.5 | 26.0 | 22.0 | 27.5 | 0.8 |
| 0.56 | 31.5 | 28.0 | 23.0 | 27.5 | 0.8 |
| 0.68 | 31.5 | 30.0 | 25.0 | 27.5 | 0.8 |

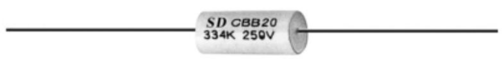
| $C_R$ (μF) | 1600Vdc(500Vac) | | | | |
|---|---|---|---|---|---|
| | W | H | T | P | d |
| 0.001 | 13.5 | 9.5 | 4.5 | 10.0 | 0.6 |
| 0.0015 | 13.5 | 9.5 | 4.5 | 10.0 | 0.6 |
| 0.0018 | 13.5 | 10.5 | 5.5 | 10.0 | 0.6 |
| 0.0022 | 13.5 | 11.0 | 6.0 | 10.0 | 0.6 |
| 0.0027 | 13.5 | 11.0 | 6.0 | 10.0 | 0.6 |
| 0.0033 | 13.5 | 11.5 | 6.5 | 10.0 | 0.6 |
| 0.0039 | 13.5 | 11.5 | 6.5 | 10.0 | 0.6 |
| 0.0047 | 13.5 | 12.0 | 7.0 | 10.0 | 0.6 |
| 0.0056 | 13.5 | 12.5 | 7.5 | 10.0 | 0.6 |
| 0.0068 | 13.5 | 12.5 | 7.5 | 10.0 | 0.6 |
| 0.0075 | 13.5 | 13.0 | 8.0 | 10.0 | 0.6 |
| 0.0082 | 13.5 | 13.5 | 8.5 | 10.0 | 0.6 |
| 0.0033 | 18.5 | 8.5 | 4.0 | 15.0 | 0.6 |
| 0.0047 | 18.5 | 10.0 | 5.0 | 15.0 | 0.6 |
| 0.0056 | 18.5 | 11.0 | 5.5 | 15.0 | 0.6 |
| 0.0068 | 18.5 | 11.0 | 6.0 | 15.0 | 0.6 |
| 0.0082 | 18.5 | 11.0 | 6.0 | 15.0 | 0.6 |
| 0.01 | 18.5 | 12.0 | 7.0 | 15.0 | 0.6 |

# CBB20轴向金属化聚丙烯膜电容器 SD

## CBB20 AXIAL-TYPE METALLIZED POLYPROPYLENE FILM CAPACITOR

### ■外形图 Outline Drawing




■特点
●体积小，重量轻，自愈性能优异
●外包聚酯胶带纸，两端灌注环氧树脂

■Features
●Small size, light weight, excellent sell-healing property
●Wrapped with polyester adhesive tape and ends filled with epoxy resin

### ■主要技术参数 Main Technical Specifications

| 项目 Items | 性能要求 Characterstics |
|---|---|
| 引用标准 Reference Standard | GB/T 10190(IEC 60384-16) |
| 气候类别 Climatic Category | 40/105/21 |
| 额定温度 Rated Temperature | 85℃ |
| 工作温度范围 Cperating Temperature Range | -40℃~+105℃(+85℃+0+105℃：decreasing factor 1.25% per℃ for $V_R$(dc)) |
| 额定电压 Rated Voltage | 160/250V、400V、630V |
| 电容量范围 Capacitance Range | 0.0010~3.3μF |
| 电容量偏差 Capacitance Tolerance | ±5%(J)，±10%(K)，±20%(M) |
| 耐电压 Voltage Proof | 1.6$U_R$(1~5s) |
| 绝缘电阻 Insulation Resistance | (20℃ 1min) ≥50000MΩ, $C_R$≤0.33μF<br>≥15000s，$C_R$>0.33μF |
| 损耗角正切 Dissipation Factor | ≤0.001(1kHz, 20℃) |

### ■外形尺寸 Dimensions(mm)

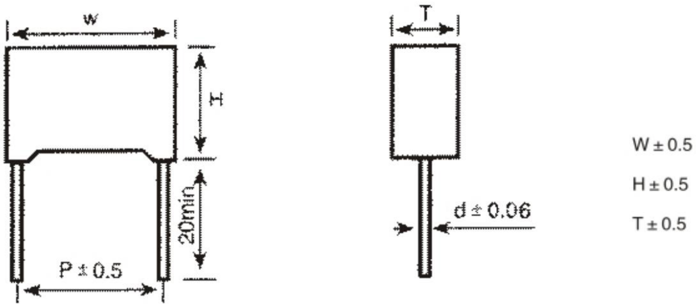
| Dmax | Dmax<7 | 7≤Dmax<16 | Dmax≥16 |
|---|---|---|---|
| d±0.05 | 0.6 | 0.6 | 1.0 |

| $C_R$ (μF) | 160/250V | | 400V | | 630V | |
|---|---|---|---|---|---|---|
| | Dmax | Lmax | Dmax | Lmax | Dmax | Lmax |
| 0.0010 | | | | | 5.0 | 13.0 |
| 0.0015 | | | | | 5.0 | 13.0 |
| 0.0022 | | | | | 5.0 | 13.0 |
| 0.0033 | | | | | 5.0 | 13.0 |
| 0.0047 | | | | | 5.0 | 13.0 |
| 0.0068 | | | 5.0 | 13.0 | 6.0 | 16.5 |
| 0.010 | 5.0 | 13.0 | 6.0 | 16.5 | 6.5 | 16.5 |
| 0.015 | 5.0 | 13.0 | 6.0 | 16.5 | 7.5 | 16.5 |
| 0.022 | 6.0 | 16.5 | 6.5 | 16.5 | 8.5 | 16.5 |
| 0.033 | 6.0 | 16.5 | 7.0 | 16.5 | 8.5 | 20.5 |
| 0.047 | 6.5 | 16.5 | 8.0 | 16.5 | 9.5 | 20.5 |
| 0.068 | 7.5 | 16.5 | 8.0 | 20.5 | 9.0 | 28.0 |
| 0.10 | 8.5 | 16.5 | 9.0 | 20.5 | 10.0 | 28.0 |
| 0.15 | 8.5 | 20.5 | 8.5 | 28.0 | 12.0 | 28.0 |
| 0.22 | 9.5 | 20.5 | 10.0 | 28.0 | 13.0 | 33.0 |
| 0.33 | 9.0 | 28.0 | 11.5 | 28.0 | 15.5 | 33.0 |
| 0.47 | 10.5 | 28.0 | 13.0 | 28.0 | 18.0 | 33.0 |
| 0.68 | 12.0 | 28.0 | 14.5 | 33.0 | 21.0 | 33.0 |
| 1.0 | 13.0 | 33.0 | 17.0 | 33.0 | | |
| 1.5 | 15.5 | 33.0 | 20.0 | 33.0 | | |
| 2.2 | 18.0 | 33.0 | | | | |
| 3.3 | 21.5 | 33.0 | | | | |

# MKP CBB81型塑料外壳金属化聚丙烯膜电容器 SD

MKPCBB81 TYPE METALLIZED POLYPROPYLENE FILM CAPACITOR (BOX-TYPE)

## ■外形图 Outline Drawing




■特点
- ●金属化聚丙烯引出
- ●损耗小，内部温升小
- ●负电容量温度系数
- ●优异的阻燃性能

■主要用途
- ●广泛应用于高压高频脉冲电路中
- ●电视机S校正和行逆程波形和显示器中
- ●电子镇流器和节能灯中
- ●吸收和SCR整流电路
- ●非标和特殊规格按用户要求生产

■Features
- ●Metallized polypropylene structure
- ●Low loss and small inherent temperature rise
- ●Negative temperature coefficient of capacitance
- ●Exellent active and passive flame resistant circuit

■Typical Applications
- ●widely used in high voltage, high frenquency and pulse circuit
- ●Deflection circuits in TV-sets(S-correction and fly-back tuning)and monitors
- ●Lamp capacitor for electronic ballast and compact lamps
- ●SNUBBER and SCR commutaing circuits
- ●According to user's need, capacitor of nostandard and special specification can be produced.

## ■技术要求Specifications

| 项目 Items | 性能要求 Characterstics |
|---|---|
| 引用标准 Reference Standard | GB/T 10190(IEC 60384-16) |
| 气候类别 Climatic Category | 40/105/56 |
| 额定温度 Rated Temperature | 85℃ for VR(dc); 75℃ for $V_R$(ac); |
| 工作温度范围 Cperating Temperature Range | -40℃~+105℃<br>(+85℃ to +105℃: decreasing factor 1.25% per ℃ for $V_R$(dc)<br>(+75℃ to +105℃: decreasing factor 1.35% per ℃ for $V_R$(dc) |
| 额定电压 Rated Voltage | 1000V、1600V、2000V |
| 电容量范围 Capacitance Range | 0.00022 μ F ~0.47 μ F |
| 电容量偏差 Capacitance Tolerance | ± 2%(G), ± 3%(H), ± 5%(J), ± 10%(K), ± 20%(M) |
| 耐电压 Voltage Proof | 2.0$U_R$(1~5s) |
| 损耗角正切 Dissipation Factor | ≤0.001(10kHz, 20℃) |
| 绝缘电阻 Insulation Resistance | ≥50000M Ω, $C_R$≤0.33 μ F<br>≥15000s，$C_R$>0.33 μ F (20℃，100V,1min) |

# MKP CBB81型塑料外壳金属化聚丙烯膜电容器

SD

## MKPCBB81 TYPE METALLIZED POLYPROPYLENE FILM CAPACITOR (BOX-TYPE)

| $C_R$ (μF) | 1000Vdc(400Vac) | | | | |
|---|---|---|---|---|---|
| | W | H | T | P | d |
| 0.00047 | 10.5 | 9.0 | 4.0 | 7.5 | 0.6 |
| 0.0056 | 10.5 | 9.0 | 4.0 | 7.5 | 0.6 |
| 0.0068 | 10.5 | 9.0 | 4.0 | 7.5 | 0.6 |
| 0.0082 | 10.5 | 9.0 | 4.0 | 7.5 | 0.6 |
| 0.001 | 10.5 | 9.0 | 4.0 | 7.5 | 0.6 |
| 0.0012 | 10.5 | 11.0 | 5.0 | 7.5 | 0.6 |
| 0.0015 | 10.5 | 11.0 | 5.0 | 7.5 | 0.6 |
| 0.0018 | 10.5 | 11.0 | 5.0 | 7.5 | 0.6 |
| 0.0022 | 10.5 | 11.0 | 5.0 | 7.5 | 0.6 |
| 0.0027 | 10.5 | 12.0 | 6.0 | 7.5 | 0.6 |
| 0.0033 | 10.5 | 12.0 | 6.0 | 7.5 | 0.6 |
| 0.001 | 13.0 | 9.0 | 4.0 | 10.0 | 0.6 |
| 0.0012 | 13.0 | 9.0 | 4.0 | 10.0 | 0.6 |
| 0.0015 | 13.0 | 9.0 | 4.0 | 10.0 | 0.6 |
| 0.0018 | 13.0 | 9.0 | 4.0 | 10.0 | 0.6 |
| 0.0022 | 13.0 | 9.0 | 4.0 | 10.0 | 0.6 |
| 0.0027 | 13.0 | 9.0 | 4.0 | 10.0 | 0.6 |
| 0.0033 | 13.0 | 9.0 | 4.0 | 10.0 | 0.6 |
| 0.0039 | 13.0 | 11.0 | 5.0 | 10.0 | 0.6 |
| 0.0047 | 13.0 | 11.0 | 5.0 | 10.0 | 0.6 |
| 0.0056 | 13.0 | 12.0 | 6.0 | 10.0 | 0.6 |
| 0.0068 | 13.0 | 12.0 | 6.0 | 10.0 | 0.6 |
| 0.0082 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.01 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.012 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.015 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.018 | 17.5 | 13.5 | 7.5 | 15.0 | 0.8 |
| 0.022 | 17.5 | 13.5 | 7.5 | 15.0 | 0.8 |
| 0.027 | 17.5 | 14.5 | 8.5 | 15.0 | 0.8 |
| 0.033 | 17.5 | 14.5 | 8.5 | 15.0 | 0.8 |
| 0.039 | 17.5 | 16.0 | 10.0 | 15.0 | 0.8 |
| 0.047 | 17.5 | 19.0 | 11.0 | 15.0 | 0.8 |
| 0.027 | 26.5 | 15.0 | 6.0 | 22.5 | 0.8 |
| 0.033 | 26.5 | 15.0 | 6.0 | 22.5 | 0.8 |
| 0.039 | 26.5 | 15.0 | 6.0 | 22.5 | 0.8 |
| 0.047 | 26.5 | 16.0 | 7.0 | 22.5 | 0.8 |
| 0.056 | 26.5 | 16.0 | 7.0 | 22.5 | 0.8 |
| 0.068 | 26.5 | 17.0 | 8.5 | 22.5 | 0.8 |
| 0.082 | 26.5 | 18.5 | 10.0 | 22.5 | 0.8 |
| 0.1 | 26.5 | 18.5 | 10.0 | 22.5 | 0.8 |
| 0.12 | 26.5 | 22.0 | 12.0 | 22.5 | 0.8 |
| 0.15 | 26.5 | 22.0 | 12.0 | 22.5 | 0.8 |
| 0.1 | 32.0 | 18.0 | 9.0 | 27.5 | 0.8 |
| 0.12 | 32.0 | 20.0 | 11.0 | 27.5 | 0.8 |
| 0.15 | 32.0 | 20.0 | 11.0 | 27.5 | 0.8 |
| 0.18 | 32.0 | 22.0 | 13.0 | 27.5 | 0.8 |
| 0.22 | 32.0 | 22.0 | 13.0 | 27.5 | 0.8 |
| 0.27 | 32.0 | 24.5 | 15.0 | 27.5 | 0.8 |
| 0.33 | 32.0 | 28.0 | 14.0 | 27.5 | 0.8 |
| 0.39 | 32.0 | 33.0 | 18.0 | 27.5 | 0.8 |
| 0.47 | 32.0 | 33.0 | 18.0 | 27.5 | 0.8 |

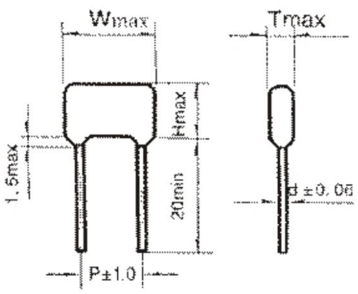
| $C_R$ (μF) | 1600Vdc(500Vac) | | | | |
|---|---|---|---|---|---|
| | W | H | T | P | d |
| 0.00068 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.00082 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.001 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.0012 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.0015 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.0018 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.0022 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.0027 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.0033 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.0039 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.0047 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.0056 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.0068 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.0082 | 17.5 | 12.0 | 6.0 | 15.0 | 0.8 |
| 0.01 | 17.5 | 12.0 | 6.0 | 15.0 | 0.8 |
| 0.012 | 17.5 | 13.5 | 7.5 | 15.0 | 0.8 |
| 0.015 | 17.5 | 13.5 | 7.5 | 15.0 | 0.8 |
| 0.018 | 17.5 | 14.5 | 8.5 | 15.0 | 0.8 |
| 0.022 | 17.5 | 14.5 | 8.5 | 15.0 | 0.8 |
| 0.027 | 17.5 | 16.0 | 10.0 | 15.0 | 0.8 |
| 0.033 | 17.5 | 19.0 | 11.0 | 15.0 | 0.8 |
| 0.015 | 26.5 | 15.0 | 6.0 | 22.5 | 0.8 |
| 0.018 | 26.5 | 15.0 | 6.0 | 22.5 | 0.8 |
| 0.022 | 26.5 | 15.0 | 6.0 | 22.5 | 0.8 |
| 0.027 | 26.5 | 15.0 | 6.0 | 22.5 | 0.8 |
| 0.033 | 26.5 | 16.0 | 7.0 | 22.5 | 0.8 |
| 0.039 | 26.5 | 17.0 | 8.5 | 22.5 | 0.8 |
| 0.047 | 26.5 | 18.5 | 10.0 | 22.5 | 0.8 |
| 0.056 | 26.5 | 18.5 | 10.0 | 22.5 | 0.8 |
| 0.068 | 26.5 | 22.0 | 12.0 | 22.5 | 0.8 |
| 0.082 | 26.5 | 22.0 | 12.0 | 22.5 | 0.8 |
| 0.039 | 32.0 | 18.0 | 9.0 | 27.5 | 0.8 |
| 0.047 | 32.0 | 18.0 | 9.0 | 27.5 | 0.8 |
| 0.056 | 32.0 | 18.0 | 9.0 | 27.5 | 0.8 |
| 0.068 | 32.0 | 18.0 | 9.0 | 27.5 | 0.8 |
| 0.082 | 32.0 | 20.0 | 11.0 | 27.5 | 0.8 |
| 0.1 | 32.0 | 20.0 | 11.0 | 27.5 | 0.8 |
| 0.12 | 32.0 | 22.0 | 13.0 | 27.5 | 0.8 |
| 0.15 | 32.0 | 24.5 | 15.0 | 27.5 | 0.8 |
| 0.18 | 32.0 | 24.5 | 15.0 | 27.5 | 0.8 |
| 0.22 | 32.0 | 33.0 | 18.0 | 27.5 | 0.8 |
| 0.27 | 32.0 | 33.0 | 18.0 | 27.5 | 0.8 |
| 0.33 | 32.0 | 33.0 | 18.0 | 27.5 | 0.8 |

| $C_R$ (μF) | 2000Vdc(700Vac) | | | | |
|---|---|---|---|---|---|
| | W | H | T | P | d |
| 0.00022 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.00027 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.00033 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.00039 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.00047 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.00056 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.00068 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.00082 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.001 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.0012 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.0015 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.0018 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.0022 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.0027 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.0033 | 17.5 | 12.0 | 6.0 | 15.0 | 0.8 |
| 0.0039 | 17.5 | 12.0 | 6.0 | 15.0 | 0.8 |
| 0.0047 | 17.5 | 12.0 | 6.0 | 15.0 | 0.8 |
| 0.0056 | 17.5 | 13.5 | 7.5 | 15.0 | 0.8 |
| 0.0068 | 17.5 | 13.5 | 7.5 | 15.0 | 0.8 |
| 0.0082 | 17.5 | 14.5 | 8.5 | 15.0 | 0.8 |
| 0.01 | 17.5 | 16.0 | 10.0 | 15.0 | 0.8 |
| 0.012 | 17.5 | 16.0 | 10.0 | 15.0 | 0.8 |
| 0.015 | 17.5 | 19.0 | 11.0 | 15.0 | 0.8 |
| 0.0010 | 26.5 | 15.0 | 6.0 | 22.5 | 0.8 |
| 0.0012 | 26.5 | 15.0 | 6.0 | 22.5 | 0.8 |
| 0.0015 | 26.5 | 15.0 | 6.0 | 22.5 | 0.8 |
| 0.0018 | 26.5 | 15.0 | 6.0 | 22.5 | 0.8 |
| 0.0022 | 26.5 | 15.0 | 6.0 | 22.5 | 0.8 |
| 0.0027 | 26.5 | 15.0 | 6.0 | 22.5 | 0.8 |
| 0.0033 | 26.5 | 15.0 | 6.0 | 22.5 | 0.8 |
| 0.0039 | 26.5 | 15.0 | 6.0 | 22.5 | 0.8 |
| 0.0047 | 26.5 | 15.0 | 6.0 | 22.5 | 0.8 |
| 0.0056 | 26.5 | 15.0 | 6.0 | 22.5 | 0.8 |
| 0.0068 | 26.5 | 15.0 | 6.0 | 22.5 | 0.8 |
| 0.0082 | 26.5 | 15.0 | 6.0 | 22.5 | 0.8 |
| 0.01 | 26.5 | 15.0 | 6.0 | 22.5 | 0.8 |
| 0.012 | 26.5 | 15.0 | 6.0 | 22.5 | 0.8 |
| 0.015 | 26.5 | 16.0 | 7.0 | 22.5 | 0.8 |
| 0.018 | 26.5 | 16.0 | 7.0 | 22.5 | 0.8 |
| 0.022 | 26.5 | 17.0 | 8.5 | 22.5 | 0.8 |
| 0.027 | 26.5 | 18.5 | 10.0 | 22.5 | 0.8 |
| 0.033 | 26.5 | 18.5 | 10.0 | 22.5 | 0.8 |
| 0.039 | 26.5 | 22.0 | 12.0 | 22.5 | 0.8 |
| 0.047 | 26.5 | 22.0 | 12.0 | 22.5 | 0.8 |
| 0.022 | 32.0 | 18.0 | 9.0 | 27.5 | 0.8 |
| 0.027 | 32.0 | 18.0 | 9.0 | 27.5 | 0.8 |
| 0.033 | 32.0 | 18.0 | 9.0 | 27.5 | 0.8 |
| 0.039 | 32.0 | 20.0 | 11.0 | 27.5 | 0.8 |
| 0.047 | 32.0 | 20.0 | 11.0 | 27.5 | 0.8 |
| 0.056 | 32.0 | 22.0 | 13.0 | 27.5 | 0.8 |
| 0.068 | 32.0 | 22.0 | 13.0 | 27.5 | 0.8 |
| 0.082 | 32.0 | 24.5 | 15.0 | 27.5 | 0.8 |
| 0.1 | 32.0 | 28.0 | 14.0 | 27.5 | 0.8 |
| 0.12 | 32.0 | 33.0 | 18.0 | 27.5 | 0.8 |
| 0.15 | 32.0 | 33.0 | 18.0 | 27.5 | 0.8 |

# CBB62型金属化聚丙烯膜电容器 SD

## CBB62 METALLIZED POLYPROPYLENE FILM CAPACITOR

### ■外形图 Outline Drawing





■特点
- ●损耗小，频率，温度特性好，绝缘电阻高
- ●自愈性佳，可靠性高
- ●适用于电源跨线降噪音路，及其他交流场合
- ●能承受2.5KV的脉冲电压，属X2类
- ●阻燃环氧树脂包封，阻燃性达UL94/V-0级

■Features
- ●Very small loss, excellent frequency and temperature characteristics, high insulation resistance
- ●Reliable quality due to self-healing effect
- ●As an across-the □line type noise suppression capacitor, and suitable for AC purpose
- ●Withstanding 2.5KV impulse voltage, Class X2
- ●Flame retardant epoxy resin coating(UL94/V-0)

### ■主要技术参数 Main Technical Specifications

| 项目 Items | 性能要求 Characterstics |
|---|---|
| 引用标准 Reference Standard | GB/T 14472(IEC60384-14) |
| 气候类别 Climatic Category | 40/105/21 |
| 额定电压 Rated Voltage | 250/275VAC、400VAC |
| 电容量范围 Capacitance Range | 0.010~1.0μF |
| 电容量偏差 Capacitance Tolerance | ±5%(J)，±10%(K)，±20%(M) |
| 耐电压 Voltage Proof | 4.3$U_R$VDC(1~5s) |
| 绝缘电阻 Insulation Resistance | ≥15000MΩ, $C_R$≤0.33μF<br>≥5000s，$C_R$>0.33μF (20℃，100V , 1min) |
| 损耗角正切 Dissipation Factor | ≤0.001(1kHz, 20℃) |

# CBB62型金属化聚丙烯膜电容器 SD

## CBB62 METALLIZED POLYPROPYLENE FILM CAPACITOR

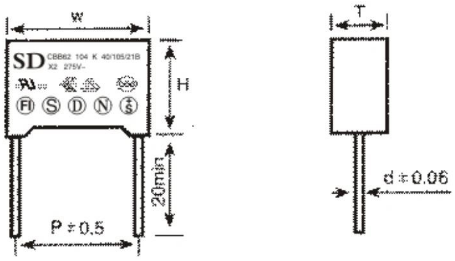
■外形尺寸 Dimensions(mm)

| $C_R$ (μF) | 250/275Vac | | | | | 400Vac | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Wmax | Hmax | Tmax | P | d | Wmax | Hmax | Tmax | P | d |
| 0.010 | 14.0 | 12.0 | 7.0 | 10.0 | 0.6 | 14.0 | 12.0 | 7.0 | 10.0 | 0.6 |
| 0.012 | 14.0 | 12.5 | 8.0 | 10.0 | 0.6 | 14.0 | 12.5 | 7.5 | 10.0 | 0.6 |
| 0.015 | 14.0 | 13.0 | 8.0 | 10.0 | 0.6 | 14.0 | 13.0 | 8.0 | 10.0 | 0.6 |
| 0.018 | 14.0 | 13.5 | 8.5 | 10.0 | 0.6 | 14.0 | 14.0 | 8.5 | 10.0 | 0.6 |
| 0.022 | 14.0 | 14.0 | 9.0 | 10.0 | 0.6 | 14.0 | 15.0 | 9.0 | 10.0 | 0.6 |
| 0.027 | 14.0 | 15.0 | 10.0 | 10.0 | 0.6 | 19.0 | 13.0 | 7.0 | 15.0 | 0.6 |
| 0.033 | 14.0 | 15.5 | 10.5 | 10.0 | 0.6 | 19.0 | 13.5 | 8.0 | 15.0 | 0.6 |
| 0.039 | 17.5 | 15.0 | 9.0 | 12.5 | 0.6 | 19.0 | 14.5 | 8.5 | 15.0 | 0.6 |
| 0.047 | 17.5 | 15.5 | 10.0 | 12.5 | 0.6 | 19.0 | 15.0 | 9.0 | 15.0 | 0.6 |
| 0.056 | 17.5 | 16.0 | 10.5 | 12.5 | 0.6 | 19.0 | 17.0 | 9.5 | 15.0 | 0.8 |
| 0.068 | 17.5 | 16.5 | 11.0 | 12.5 | 0.6 | 25.0 | 16.0 | 8.5 | 20.0 | 0.8 |
| 0.082 | 17.5 | 17.5 | 12.0 | 12.5 | 0.6 | 25.0 | 16.5 | 9.0 | 20.0 | 0.8 |
| 0.10 | 25.0 | 15.5 | 10.0 | 20.0 | 0.8 | 25.0 | 17.5 | 10.0 | 20.0 | 0.8 |
| 0.12 | 25.0 | 16.0 | 10.5 | 20.0 | 0.8 | 25.0 | 18.5 | 11.0 | 20.0 | 0.8 |
| 0.15 | 25.0 | 17.0 | 11.5 | 20.0 | 0.8 | 25.0 | 19.5 | 12.0 | 20.0 | 0.8 |
| 0.18 | 25.0 | 18.0 | 12.0 | 20.0 | 0.8 | 25.0 | 20.5 | 13.0 | 20.0 | 0.8 |
| 0.22 | 25.0 | 20.0 | 12.5 | 20.0 | 0.8 | 30.0 | 21.0 | 12.0 | 25.0 | 0.8 |
| 0.27 | 25.0 | 21.0 | 13.5 | 20.0 | 0.8 | 30.0 | 22.5 | 13.0 | 25.0 | 0.8 |
| 0.33 | 25.0 | 22.0 | 15.0 | 20.0 | 0.8 | 30.0 | 23.5 | 14.5 | 25.0 | 0.8 |
| 0.39 | 30.0 | 22.0 | 13.5 | 25.0 | 0.8 | 36.0 | 23.0 | 14.0 | 30.0 | 0.8 |
| 0.47 | 30.0 | 22.0 | 16.0 | 25.0 | 0.8 | 36.0 | 24.5 | 15.5 | 30.0 | 0.8 |
| 0.56 | 30.0 | 25.0 | 15.5 | 25.0 | 0.8 | | | | | |
| 0.68 | 36.0 | 24.5 | 15.5 | 30.0 | 0.8 | | | | | |
| 0.82 | 36.0 | 26.0 | 17.0 | 30.0 | 0.8 | | | | | |
| 1.0 | 36.0 | 28.0 | 18.5 | 30.0 | 0.8 | | | | | |

# 金属化聚丙烯膜抗干扰电容器(X2类,275Vac/305Vac)　SD

## METALLIZED POLYPROPYLENE FILM INTERFERENCE SUPPRESSION CAPACITOR(CLASS X2,275VAC/305VAC)

### ■外形图 Outline Drawing




W±0.5
H±0.5
T±0.5

■特点
- ●金属化聚丙烯
- ●能承受过压冲击
- ●优异的阻燃性能
- ●广泛用于电源跨线路等抗干扰场合
- ●非标和特殊规格按用户要求生产

■Features
- ●Metallized polypropylene structure
- ●Withstanding overvoltage stressing
- ●Excellent active and passive flame resistant abilitles
- ●Widely used in across–the–line, interference suprression circuit, etc.
- ●According to user's need, capacitor of nostandard and special specification can be produced.

### ■安全认证 Safely Approvals

| | | | |
|---|---|---|---|
| ● | CQC | CQC<br>(中国) | 通过中国质量认证中心CQC认证 |
| ● | ENEC 10, VDE | ENEC–VDE<br>(欧盟) | 通过德国VDE和欧盟ENEC认证 |
| ● | c UL us | UL/CUL<br>(美国/加拿大) | 通过美国/加拿大UL/CUL认证 |
| ● | CB TEST CERTIFICATE | | 取得CB测试证书 |

### ■技术要求 Specifications

| 项目 Items | 性能要求 Characterstics | | |
|---|---|---|---|
| 引用标准 Reference Standard | GB/T 14472(IEC60384–14) | | |
| 气候类别/阻燃等级<br>Climatic Category/Passive Flammability Class | 40/105/21/B | | |
| 工作温度范围<br>Operating Temperature Range | –40℃~+105℃ | | |
| 电容器类别 Class | X2类 | | |
| 额定电压 Rated Voltage | 275/305Vac | | |
| 电容量范围 Capacitance Range | 0.0022μF~4.7μF | | |
| 电容量偏差 Capacitance Tolerance | +5%(J), ±10%(K), ±20%(M) | | |
| 耐电压 Voltage Proot | 引线之间 Between Terminals: | 2000Vdc(2s) $C_R\leqslant1.0\mu F$ | |
| | | 1800Vdc(2s) $C_R>1.0\mu F$ | |
| | 极壳之间 Between Terminals To Case: | 2110Vac(1min) | |
| 绝缘电阻 Insulation Resistance | ≥15000MΩ, $C_R\leqslant0.33\mu F$<br>≥5000s，$C_R>0.33\mu F$ (20℃，100V，1min) | | |
| 损耗角正切 Dissipation Factor | $0.0010\mu F\leqslant C_R\leqslant0.47\mu F$ | $\leqslant10\times10^{-4}$(1kHz, 20℃) | $\leqslant20\times10^{-4}$(10kHz, 20℃) |
| | $0.47\mu F<C_R\leqslant1.0\mu F$ | $\leqslant20\times10^{-4}$(1kHz, 20℃) | $\leqslant40\times10^{-4}$(10kHz, 20℃) |
| | $C_R>1.0\mu F$ | $\leqslant30\times10^{-4}$(1kHz, 20℃) | ———————— |

# 金属化聚丙烯膜抗干扰电容器(X2类,275Vac/305Vac)



## METALLIZED POLYPROPYLENE FILM INTERFERENCE SUPPRESSION CAPACITOR(CLASS X2,275VAC/305VAC)

| $C_R$ (μF) | 275/305Vac | | | | |
|---|---|---|---|---|---|
| | W | H | T | P | d |
| 0.0022 | 10.5 | 9.0 | 4.0 | 7.5 | 0.6 |
| 0.0033 | 10.5 | 9.0 | 4.0 | 7.5 | 0.6 |
| 0.0047 | 10.5 | 9.0 | 4.0 | 7.5 | 0.6 |
| 0.0068 | 10.5 | 9.0 | 4.0 | 7.5 | 0.6 |
| 0.001 | 10.5 | 9.0 | 4.0 | 7.5 | 0.6 |
| 0.0012 | 10.5 | 9.0 | 4.0 | 7.5 | 0.6 |
| 0.0015 | 10.5 | 9.0 | 4.0 | 7.5 | 0.6 |
| 0.0018 | 10.5 | 9.0 | 4.0 | 7.5 | 0.6 |
| 0.0022 | 10.5 | 9.0 | 4.0 | 7.5 | 0.6 |
| 0.0027 | 10.5 | 9.0 | 4.0 | 7.5 | 0.6 |
| 0.0033 | 10.5 | 9.0 | 4.0 | 7.5 | 0.6 |
| 0.0039 | 10.5 | 9.0 | 4.0 | 7.5 | 0.6 |
| 0.0047 | 10.5 | 9.0 | 4.0 | 7.5 | 0.6 |
| 0.0056 | 10.5 | 9.0 | 4.0 | 7.5 | 0.6 |
| 0.0068 | 10.5 | 9.0 | 4.0 | 7.5 | 0.6 |
| 0.0082 | 10.5 | 9.0 | 4.0 | 7.5 | 0.6 |
| 0.01 | 10.5 | 9.0 | 4.0 | 7.5 | 0.6 |
| 0.012 | 10.5 | 9.0 | 4.0 | 7.5 | 0.6 |
| 0.015 | 10.5 | 9.0 | 4.0 | 7.5 | 0.6 |
| 0.018 | 10.5 | 9.0 | 4.0 | 7.5 | 0.6 |
| 0.022 | 10.5 | 9.0 | 4.0 | 7.5 | 0.6 |
| 0.027 | 10.5 | 11.0 | 5.0 | 7.5 | 0.6 |
| 0.033 | 10.5 | 11.0 | 5.0 | 7.5 | 0.6 |
| 0.039 | 10.5 | 12.0 | 6.0 | 7.5 | 0.6 |
| 0.047 | 10.5 | 12.0 | 6.0 | 7.5 | 0.6 |
| 0.0047 | 13.0 | 9.0 | 4.0 | 10.0 | 0.6 |
| 0.0056 | 13.0 | 9.0 | 4.0 | 10.0 | 0.6 |
| 0.0068 | 13.0 | 9.0 | 4.0 | 10.0 | 0.6 |
| 0.0082 | 13.0 | 9.0 | 4.0 | 10.0 | 0.6 |
| 0.01 | 13.0 | 9.0 | 4.0 | 10.0 | 0.6 |
| 0.012 | 13.0 | 9.0 | 4.0 | 10.0 | 0.6 |
| 0.015 | 13.0 | 9.0 | 4.0 | 10.0 | 0.6 |
| 0.018 | 13.0 | 9.0 | 4.0 | 10.0 | 0.6 |
| 0.022 | 13.0 | 9.0 | 4.0 | 10.0 | 0.6 |
| 0.027 | 13.0 | 9.0 | 4.0 | 10.0 | 0.6 |
| 0.033 | 13.0 | 11.0 | 5.0 | 10.0 | 0.6 |
| 0.039 | 13.0 | 11.0 | 5.0 | 10.0 | 0.6 |
| 0.047 | 13.0 | 11.0 | 5.0 | 10.0 | 0.6 |
| 0.056 | 13.0 | 11.0 | 5.0 | 10.0 | 0.6 |
| 0.068 | 13.0 | 12.0 | 6.0 | 10.0 | 0.6 |
| 0.082 | 13.0 | 12.0 | 6.0 | 10.0 | 0.6 |
| 0.1 | 13.0 | 12.0 | 6.0 | 10.0 | 0.6 |
| 0.12 | 13.0 | 14.0 | 8.0 | 10.0 | 0.6 |
| 0.15 | 13.0 | 14.0 | 8.0 | 10.0 | 0.6 |

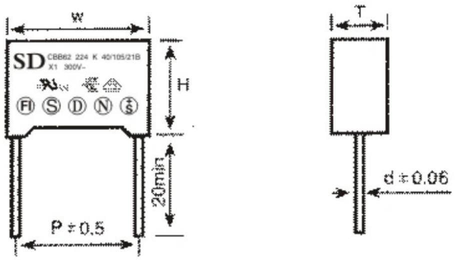
| $C_R$ (μF) | 275/305Vac | | | | |
|---|---|---|---|---|---|
| | W | H | T | P | d |
| 0.01 | 17.5 | 9.5 | 5.0 | 15.0 | 0.8 |
| 0.012 | 17.5 | 9.5 | 5.0 | 15.0 | 0.8 |
| 0.015 | 17.5 | 9.5 | 5.0 | 15.0 | 0.8 |
| 0.018 | 17.5 | 9.5 | 5.0 | 15.0 | 0.8 |
| 0.022 | 17.5 | 9.5 | 5.0 | 15.0 | 0.8 |
| 0.027 | 17.5 | 9.5 | 5.0 | 15.0 | 0.8 |
| 0.033 | 17.5 | 9.5 | 5.0 | 15.0 | 0.8 |
| 0.039 | 17.5 | 9.5 | 5.0 | 15.0 | 0.8 |
| 0.047 | 17.5 | 9.5 | 5.0 | 15.0 | 0.8 |
| 0.056 | 17.5 | 9.5 | 5.0 | 15.0 | 0.8 |
| 0.068 | 17.5 | 9.5 | 5.0 | 15.0 | 0.8 |
| 0.082 | 17.5 | 9.5 | 5.0 | 15.0 | 0.8 |
| 0.01 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.012 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.015 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.018 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.022 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.027 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.033 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.039 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.047 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.056 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.068 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.082 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.1 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.12 | 17.5 | 12.0 | 6.0 | 15.0 | 0.8 |
| 0.15 | 17.5 | 12.0 | 6.0 | 15.0 | 0.8 |
| 0.18 | 17.5 | 13.5 | 7.5 | 15.0 | 0.8 |
| 0.22 | 17.5 | 13.5 | 7.5 | 15.0 | 0.8 |
| 0.27 | 17.5 | 14.5 | 8.5 | 15.0 | 0.8 |
| 0.33 | 17.5 | 16.0 | 10.0 | 15.0 | 0.8 |
| 0.39 | 17.5 | 19.0 | 11.0 | 15.0 | 0.8 |
| 0.47 | 17.5 | 19.0 | 11.0 | 15.0 | 0.8 |

| $C_R$ (μF) | 275/305Vac | | | | |
|---|---|---|---|---|---|
| | W | H | T | P | d |
| 0.15 | 26.5 | 15.0 | 6.0 | 22.5 | 0.8 |
| 0.18 | 26.5 | 15.0 | 6.0 | 22.5 | 0.8 |
| 0.22 | 26.5 | 15.0 | 6.0 | 22.5 | 0.8 |
| 0.27 | 26.5 | 16.0 | 7.0 | 22.5 | 0.8 |
| 0.33 | 26.5 | 17.0 | 8.5 | 22.5 | 0.8 |
| 0.39 | 26.5 | 17.0 | 8.5 | 22.5 | 0.8 |
| 0.47 | 26.5 | 17.0 | 8.5 | 22.5 | 0.8 |
| 0.56 | 26.5 | 18.5 | 10.0 | 22.5 | 0.8 |
| 0.68 | 26.5 | 18.5 | 10.0 | 22.5 | 0.8 |
| 0.82 | 26.5 | 22.0 | 12.0 | 22.5 | 0.8 |
| 1 | 26.5 | 22.0 | 12.0 | 22.5 | 0.8 |
| 1.2 | 26.5 | 24.5 | 15.5 | 22.5 | 0.8 |
| 1.5 | 26.5 | 24.5 | 15.5 | 22.5 | 0.8 |
| 0.47 | 32.0 | 18.0 | 9.0 | 27.5 | 0.8 |
| 0.56 | 32.0 | 18.0 | 9.0 | 27.5 | 0.8 |
| 0.68 | 32.0 | 18.0 | 9.0 | 27.5 | 0.8 |
| 0.82 | 32.0 | 20.0 | 11.0 | 27.5 | 0.8 |
| 1 | 32.0 | 20.0 | 11.0 | 27.5 | 0.8 |
| 1.2 | 32.0 | 22.0 | 13.0 | 27.5 | 0.8 |
| 1.5 | 32.0 | 22.0 | 13.0 | 27.5 | 0.8 |
| 1.8 | 32.0 | 24.5 | 15.0 | 27.5 | 0.8 |
| 2.2 | 32.0 | 28.0 | 14.0 | 27.5 | 0.8 |
| 2.7 | 32.0 | 33.0 | 18.0 | 27.5 | 0.8 |
| 3.3 | 32.0 | 33.0 | 18.0 | 27.5 | 0.8 |
| 3.9 | 32.0 | 37.0 | 22.0 | 27.5 | 0.8 |
| 4.7 | 32.0 | 37.0 | 22.0 | 27.5 | 0.8 |
| 1.8 | 41.0 | 26.0 | 12.0 | 37.5 | 1.0 |
| 2.2 | 41.0 | 28.0 | 14.0 | 37.5 | 1.0 |
| 2.7 | 41.0 | 28.0 | 14.0 | 37.5 | 1.0 |
| 3.3 | 41.0 | 30.0 | 16.0 | 37.5 | 1.0 |
| 3.9 | 41.0 | 32.0 | 17.0 | 37.5 | 1.0 |
| 4.7 | 41.0 | 33.5 | 18.5 | 37.5 | 1.0 |

# 金属化聚丙烯膜抗干扰电容器(X1类,300Vac) SD

## METALLIZED POLYPROPYLENE FILM INTERFERENCE SUPPRESSION CAPACITOR(CLASS X1, 300VAC)

### ■外形图 Outline Drawing




**■特点**
- ●金属化聚丙烯
- ●能承受过压冲击
- ●优异的阻燃性能
- ●广泛用于电源跨线路等抗干扰场合

**■Features**
- ●Metallized polypropylene structure
- ●Withstanding overvoltage stressing
- ●Excellent active and passive flame resistant abilities
- ●Widely used in across–the–line, interference suprression circuit, etc.

### ■安全认证 Safety Approvals

| | | | |
|---|---|---|---|
| ● | | ENEC–VDE<br>(欧盟) | 通过德国VDE和欧盟ENEC认证 |
| ● | c US | UL/CUL<br>(美国/加拿大) | 通过美国/加拿大UL/CUL认证 |
| ● | CB TEST CERTIFICATE | | 取得CB测试证书 |

### ■技术要求 Specifications

| 项目 Items | 性能要求 Characterstics | | |
|---|---|---|---|
| 引用标准 Reference Standard | GB/T 14472(IEC60384–14) | | |
| 气候类别/阻燃等级<br>Climatic Category/Passive Flammability Class | 40/105/21/B | | |
| 工作温度范围<br>Operating Temperature Range | –40℃~+105℃ | | |
| 电容器类别 Class | X1类 | | |
| 额定电压 Rated Voltage | 300Vac | | |
| 电容量范围 Capacitance Range | 0.0022μF~4.7μF | | |
| 电容量偏差 Capacitance Tolerance | ±5%(J), ±10%(K), ±20%(M) | | |
| 耐电压 Voltage Proot | 引线之间 Between Terminals: | 2850(Vdc)(2s) | |
| | 极壳之间 Between terminals To Case: | 2120(Vac)(1min) | |
| 绝缘电阻 Insulation Resistance | ≥15000MΩ, $C_R$≤0.33μF<br>≥5000s, $C_R$>0.33μF (20℃, 100V, 1min) | | |
| 损耗角正切 Dissipation Factor | 0.010μF<$C_R$≤0.47μF | ≤$10\times10^{-4}$(1kHz, 20℃) | ≤$20\times10^{-4}$(10kHz, 20℃) |
| | 0.47μF<$C_R$≤1.0μF | ≤$20\times10^{-4}$(1kHz, 20℃) | ≤$40\times10^{-4}$(10kHz, 20℃) |
| | 1.0μF<$C_R$ | ≤$30\times10^{-4}$(1kHz, 20℃) | ---------- |

# 金属化聚丙烯膜抗干扰电容器(X1类,300Vac)



## METALLIZED POLYPROPYLENE FILM INTERFERENCE SUPPRESSION CAPACITOR(CLASS X1, 300VAC)

| $C_R$ (μF) | 300Vac | | | | |
|---|---|---|---|---|---|
| | W | H | T | P | d |
| 0.0022 | 13.0 | 11.0 | 5.0 | 10.0 | 0.6 |
| 0.0033 | 13.0 | 11.0 | 5.0 | 10.0 | 0.6 |
| 0.0047 | 13.0 | 11.0 | 5.0 | 10.0 | 0.6 |
| 0.0068 | 13.0 | 11.0 | 5.0 | 10.0 | 0.6 |
| 0.01 | 13.0 | 11.0 | 5.0 | 10.0 | 0.6 |
| 0.012 | 13.0 | 11.0 | 5.0 | 10.0 | 0.6 |
| 0.015 | 13.0 | 11.0 | 5.0 | 10.0 | 0.6 |
| 0.018 | 13.0 | 12.0 | 6.0 | 10.0 | 0.6 |
| 0.022 | 13.0 | 12.0 | 6.0 | 10.0 | 0.6 |
| 0.027 | 13.0 | 12.0 | 6.0 | 10.0 | 0.6 |
| 0.033 | 13.0 | 12.0 | 6.0 | 10.0 | 0.6 |
| 0.01 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.012 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.015 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.018 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.022 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.027 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.033 | 17.5 | 11.0 | 5.0 | 15.0 | 0.8 |
| 0.039 | 17.5 | 12.0 | 6.0 | 15.0 | 0.8 |
| 0.047 | 17.5 | 12.0 | 6.0 | 15.0 | 0.8 |
| 0.056 | 17.5 | 12.0 | 6.0 | 15.0 | 0.8 |
| 0.068 | 17.5 | 13.5 | 7.5 | 15.0 | 0.8 |
| 0.082 | 17.5 | 13.5 | 7.5 | 15.0 | 0.8 |
| 0.1 | 17.5 | 14.5 | 8.5 | 15.0 | 0.8 |
| 0.12 | 17.5 | 14.5 | 8.5 | 15.0 | 0.8 |
| 0.15 | 17.5 | 16.0 | 10.0 | 15.0 | 0.8 |
| 0.18 | 17.5 | 19.0 | 11.0 | 15.0 | 0.8 |
| 0.22 | 17.5 | 19.0 | 11.0 | 15.0 | 0.8 |

| $C_R$ (μF) | 300Vac | | | | |
|---|---|---|---|---|---|
| | W | H | T | P | d |
| 0.068 | 26.5 | 15.0 | 6.0 | 22.5 | 0.8 |
| 0.082 | 26.5 | 15.0 | 6.0 | 22.5 | 0.8 |
| 0.1 | 26.5 | 15.0 | 6.0 | 22.5 | 0.8 |
| 0.12 | 26.5 | 15.0 | 6.0 | 22.5 | 0.8 |
| 0.15 | 26.5 | 16.0 | 7.0 | 22.5 | 0.8 |
| 0.18 | 26.5 | 16.0 | 7.0 | 22.5 | 0.8 |
| 0.22 | 26.5 | 17.0 | 8.5 | 22.5 | 0.8 |
| 0.27 | 26.5 | 17.0 | 8.5 | 22.5 | 0.8 |
| 0.33 | 26.5 | 18.5 | 10.0 | 22.5 | 0.8 |
| 0.39 | 26.5 | 18.5 | 10.0 | 22.5 | 0.8 |
| 0.47 | 26.5 | 22.0 | 12.0 | 22.5 | 0.8 |
| 0.56 | 26.5 | 24.5 | 15.5 | 22.5 | 0.8 |
| 0.68 | 26.5 | 24.5 | 15.5 | 22.5 | 0.8 |

| $C_R$ (μF) | 300Vac | | | | |
|---|---|---|---|---|---|
| | W | H | T | P | d |
| 0.22 | 32.0 | 18.0 | 9.0 | 27.5 | 0.8 |
| 0.27 | 32.0 | 18.0 | 9.0 | 27.5 | 0.8 |
| 0.33 | 32.0 | 18.0 | 9.0 | 27.5 | 0.8 |
| 0.39 | 32.0 | 18.0 | 9.0 | 27.5 | 0.8 |
| 0.47 | 32.0 | 20.0 | 11.0 | 27.5 | 0.8 |
| 0.56 | 32.0 | 20.0 | 11.0 | 27.5 | 0.8 |
| 0.68 | 32.0 | 22.0 | 13.0 | 27.5 | 0.8 |
| 0.82 | 32.0 | 28.0 | 14.0 | 27.5 | 0.8 |
| 1 | 32.0 | 28.0 | 14.0 | 27.5 | 0.8 |
| 1.2 | 32.0 | 33.0 | 18.0 | 27.5 | 0.8 |
| 1.5 | 32.0 | 33.0 | 18.0 | 27.5 | 0.8 |
| 1.8 | 32.0 | 37.0 | 22.0 | 27.5 | 0.8 |
| 2.2 | 32.0 | 37.0 | 22.0 | 27.5 | 0.8 |
| 3.3 | 32.0 | 37.0 | 22.0 | 27.5 | 0.8 |
| 4.7 | 32.0 | 37.0 | 22.0 | 27.5 | 0.8 |

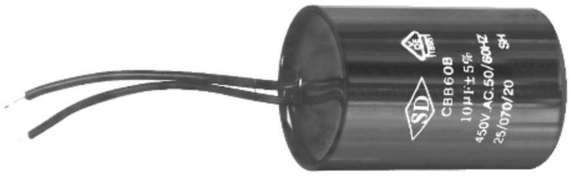
# CBB60型金属化聚丙烯薄膜电容器



## CBB60 METALIZED POLYPROPYLENE FILM CAPACITOR

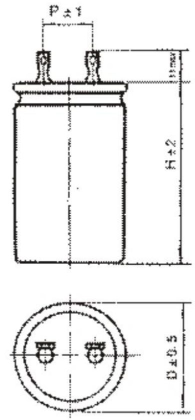
### ■主要技术参数 Main Technical Specifications

| 项目<br>Items | 性能要求<br>Characteristics | |
|---|---|---|
| 标准<br>Standard | GB3667(IEC 60252) | |
| 气候类别<br>Climatic Category | 40/07/21 | |
| 额定电压<br>Rated Voltage | 400V(450V)AC | |
| 电容量范围<br>Capacitance Range | 3μF~50μF | |
| 容量允许偏差<br>Capacitance Tolerance | ±5%(J), ±10%(K) | |
| 耐电压<br>Voltage Proof | 两极间1.75UR<br>Between teminals | 无永久性击穿或飞弧<br>No permanent Breakdown or flashover |
| | 壳极间 2000VAC<br>Between teminal and case | |
| 绝缘电阻<br>Insulation Resistance | 两极间<br>Between terminal and case | ≥3000MΩ · μF |
| | 壳极间<br>Between terminal and case | ≥1000MΩ |
| 损耗角正切<br>Dissipation Factor | ≤0.002(50~100Hz) | |



### ■外形图 Outline Dimensions

・特点：具有体积小，电气性能稳定，优良的自愈性能。
・用途：适用于频率为50Hz(60Hz)的电动机和运行电路中。
・Features: Excellent small size. Reliable performance and good self–healing property.
・Applicatiom: Applied to motor starting and running circuits.




### ■外形尺寸 Dimensions(mm)

| $C_R$ (μF) | 400V(450V)AC(铝壳) | | | 400V(450V)AC(塑壳) | | |
|---|---|---|---|---|---|---|
| | Dmax | Hmax | P | Dmax | Hmax | P |
| 3 | 34 | 60 | 12 | 34 | 60 | 12 |
| 4 | 34 | 60 | 12 | 34 | 60 | 12 |
| 5 | 34 | 60 | 12 | 34 | 60 | 12 |
| 6 | 34 | 60 | 12 | 35 | 68 | 12 |
| 8 | 42 | 80 | 15 | 42 | 80 | 15 |
| 9 | 42 | 80 | 15 | 42 | 80 | 15 |
| 10 | 42 | 80 | 15 | 42 | 80 | 15 |
| 12 | 42 | 80 | 15 | 42 | 80 | 15 |
| 15 | 42 | 80 | 15 | 42 | 80 | 15 |
| 16 | 42 | 80 | 15 | 45 | 80 | 16 |
| 20 | 50 | 103 | 18 | 50 | 100 | 18 |
| 25 | 50 | 103 | 18 | 50 | 100 | 18 |
| 30 | 50 | 103 | 18 | 50 | 100 | 18 |
| 35 | 55 | 103 | 18 | 50 | 100 | 18 |
| 40 | 55 | 103 | 18 | | | |
| 50 | 60 | 103 | 20 | | | |

■安全认证：本产品已通过德国VDE认证，并取得安全认证证书。
Safety Approval: This producthas been assessed by Germany VDE and has obtained security certificate.

注：1、其它容量、尺寸系列可按需要商定。
Other capacitance and dimension serials can be ensured according to customer's requesa.
2、引出端形式可根据用户协议要求制作。
Termianl forms can be made in conformity to requirements of agreements with customers.

# CBB61型金属化聚丙烯电容器



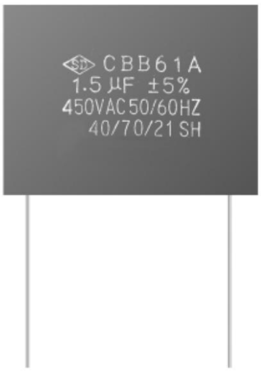
## CBB61 METALLIZED POLYPROPYLENE FILM CAPACITOR

### ■主要技术参数Main Technical Specifications

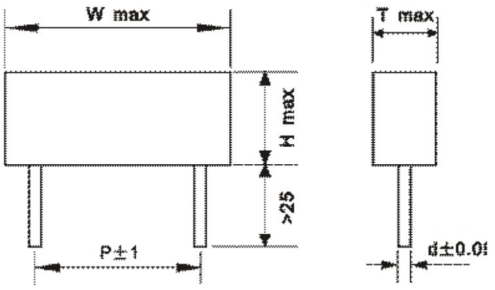
| 项目 Items | 性能 Perfomance | | 试验条件 Test Condition |
|---|---|---|---|
| 标准 Standard | SJ2600.1–85 GB3667(IEC 60252) | | |
| 气候类别 Climatic Category | 40/070/21 | | |
| 容量允许偏差 Capacitance Tolerance | ±5%(J), ±10%(K) | | |
| 损耗角正切 Dissipation Factor | ≤0.004 | | 50Hz, 20℃ |
| 耐电压 Withstand Voltage | 两极间 Between teminals | 无永久性击穿或飞弧 No permanert Breakdown and Flashover | $1.5U_R$, 10s |
| | 壳极间 Between terminal and case | | 2000V AC , 10s |
| 绝缘电阻 Insulation Resistance | 两极间 Between terminals | ≥3000MΩ μF | $U_R$<500V, 100VDC, 2min $U_R$<500V, 500VDC, 2min |
| | 壳极间 Between terminal and case | ≥1000MΩ | 400VDC, 30S |
| 可焊性 Solderability | 镀锡良好 Good tinning | | 槽焊法 Groove soldering |
| 引出端强度 Terminal Strength | 无可见损伤 No visible damage | | 拉力：20N，10S Tension strength 20N, 10S |
| 振动 Vibration | 无可见损伤，No visible damage △C/C ≤5% | | 10–55Hz 0.75mm，6h |
| 密封性 Sealia bility | 无泄漏及外壳变形 No leakage and no deformation of case | | 油煮法 Boiled in the oil |
| 稳态湿热 Damp Heat, Steady state | 无可见损伤，标志清晰 No visible damage, marking clear △<C/C≤5%；△tgs≤0.002 Ri(壳极间) ≥100MΩ(Between termial and caes) | | 40℃ 93% 21d |
| 耐久性 Durability | 无可见损伤，标志清晰 No visible damage, marking clear △<C/C≤5%；△tgs≤0.002 | | +70℃ 1.25 $U_R$ 500h |

CBB61型金属化聚丙烯电容器，自愈性能优良，外部是用ABS塑料外壳及环氧树脂封装，适用于频率50Hz(60Hz)交流电源供电的单相电动机起动和运转。

CBB61 Capacitor, which is enclosed in ABS plastic case filled with epoxy resin, is of excellent Selfhealing starting and running circuits at 50HZ(60HZ)




### ■外形图 Outline Drawing




### ■外形尺寸 Dimensions(mm)

| $C_R$ (μF) | 400VAC(铝壳) | | | 500VAC(铝壳) | | |
|---|---|---|---|---|---|---|
| | W | H | T | W | H | T |
| 1 | 30 | 30 | 15 | 47 | 30 | 14 |
| 1.2 | 30 | 30 | 15 | 47 | 30 | 14 |
| 1.5 | 30 | 30 | 17 | 47 | 30 | 14 |
| 2 | 30 | 30 | 23 | 47 | 40 | 15 |
| 2.5 | 30 | 30 | 23 | 47 | 40 | 15 |
| 3 | 30 | 30 | 23 | 47 | 40 | 15 |
| 4 | | | | 47 | 40 | 17 |
| 5 | | | | 47 | 40 | 21 |
| 6 | | | | 47 | 40 | 25 |
| 8 | | | | 76 | 46 | 21 |

注：1、其它容量尺寸系列可按需要商定
Other capacitance and dimension series can be ensured according to customer’s requesa.
2、引出端形式可根据用户协议要求制作。
Terminal forms can be made in conformity to the requirements of agreements with customers.

# CBB65交流电动机用电容器

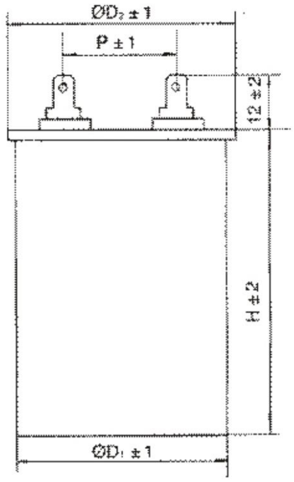


## CBB65A AC MOTOR CAPACITOR

・特点：体积小、电气性能稳定、具有自愈、防爆功能。
・用途：适用于频率为50Hz(60Hz)交流电源供电且安全性能要求很高的单相电机起动和运行。
・使用要求：
a.海拔：≤2000m
b.投入时的剩余电压：不超过额定电压的10%
c.最大允许电压：不超过1.1倍额定电压
d.最大允许电流：不超过1.3倍额定电流

・Feautures: Small size, reliable performance, self-healing and antiexplosion function.
・Applications: Applied to starting and better working of single phase motor with very high requirement of its safety per formance in 50Hz(60Hz) ferquency AC eletric power system.
・Application requirements:
a: Altituld:≤2000m
b: Residual voltage while loading: less than 10% of rated voltage
c: Allowed max. Voltage: less than 1.1 times rated voltage
d: Permissible max. Current: less than 1.3 times rated current.

### ■外形图 Outline Dimensions




尺寸mm

| 额定电压 VAC50/90Hz | 标称电容量 μF | ϕD1max | ϕD2max | H max | P |
|---|---|---|---|---|---|
| 400(450) | 10 | 50 | 53 | 65 | 18 |
| | 16 | | | 75 | |
| | 20 | | | 85 | |
| | 25 | | | | |
| | 30 | | | 100 | |
| | 35 | | | 110 | |
| | 40 | | | 125 | |
| | 50 | 55 | 58 | 135 | 20 |
| | 60 | 60 | 63 | 130 | |
| | 70 | | | 150 | |
| 500 | 10 | 50 | 53 | 85 | 18 |
| | 20 | | | 100 | |
| | 30 | | | 110 | |
| 630 | 10 | 50 | 53 | 85 | 18 |
| | 15 | | | 100 | |
| | 20 | | | 100 | |
| | 30 | | | 135 | |

### ■主要技术参数 Main Technical Specifications

| 项目 Items | 性能要求 Characteristics | | |
|---|---|---|---|
| 标准 Standard | GB3667(IEC 60252) | | |
| 气候类别 Climatic Category | 40/70/21 | | |
| 额定电压 Rated Voltage | 400V (450V)AC | 500VAC 630VAC | |
| 电容量范围 Capacitance Range | 10μF–70μF | 10μF–30μF | |
| 容量允许偏差 Capacitance Tolerance | ±5% | | |
| 耐电压 Voltage Proof | 两极间 Between Terminals | 1.75$U_R$ | |
| | 极壳间 Between Terminals and Case | <630V | 2000V~ |
| | | ≥630V | 2300V |
| 绝缘电阻 Insulation Resistance | ≥3000MΩ·μF | | |
| 损耗角正切 Dissipation Factor | ≤0.002(50–100Hz) | | |

注：1、其它容量、尺寸系列可按需要商定。
Other capacitance and dimension serials can be ensured according to customer’s requesa.
2、引出端形式可根据用户协议要求制作。
Terminal forms can be made in conformity to the requirements of agreements with customers.