

金属化薄膜电容

Metalized Film Capacitor

马达运转电容
型号: MKPR

日期: 2024.01.22
版本: 1

Motor Run Capacitor
Type: MKPR

Date: 2024.01.22
Version: 1



结构:

金属化聚丙烯安全膜
塑壳 UL94 V-1 以上
环氧树脂

Constructions

Metalized polypropylene film
Plastic can
Epoxy Resin

特性:

自愈特性
低损耗
安全膜防爆型
高绝缘电阻
环保

Features

Self-healing
Low dissipation factor
explosion-proof type
High insulation resistance
Environmentally friendly

应用:

一般的正弦交流应用，主要是马达运转

Application

For general since wave application, mainly as motor run

端子:

导线，线径 0.5mm² 以上

Terminals

Insulated copper wire, 0.5mm² min

安装:

M8/M10/M12 底部螺柱/平底

Mounting parts

Threaded stud at bottom of can
(M8/M10/M12) as option

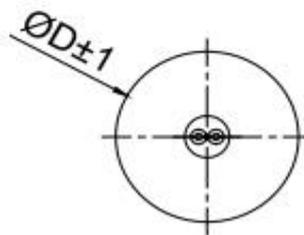
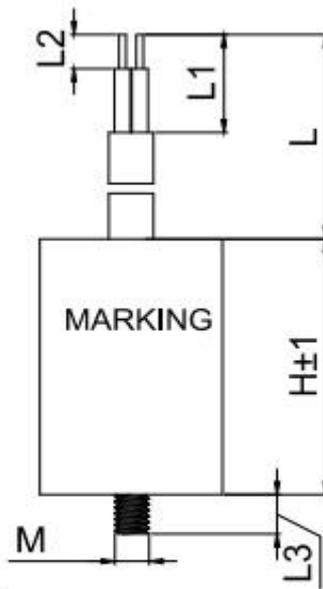
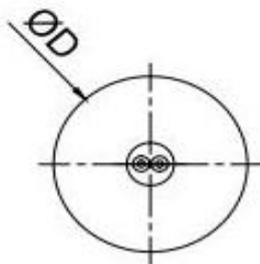
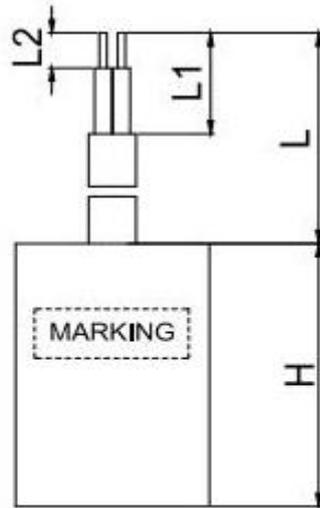
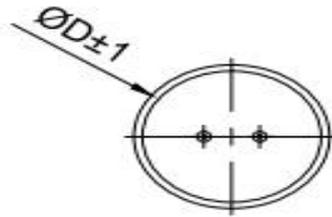
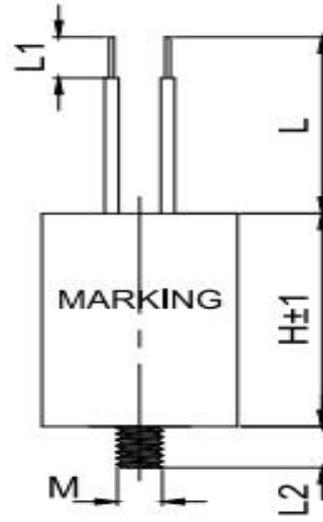
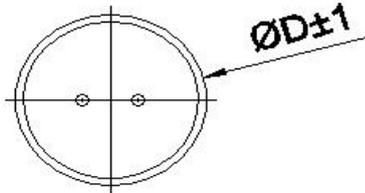
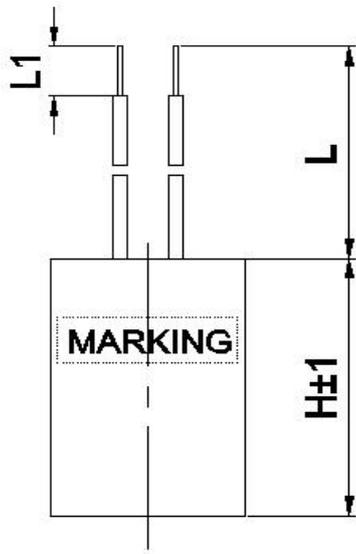
技术资料

| | |
|------|--|
| 参照标准 | GB / T3667.1-2016 ; IEC60252-1 ; UL810 |
| 安全等级 | S3 |
| 预期寿命 | Class B (10000h) |
| 额定电压 | 250VAC;450VAC |
| 额定容量 | 见表格 |
| 容量偏差 | ±5% (J) |
| 额定频率 | 50/60Hz |



| 测试 | |
|----------------------|--|
| 外观检查 | 外壳无变形，表面无污物，印字清洗；引出电极无氧化。 |
| 尺寸检查 | 安装及外形尺寸符合要求。 |
| 容量 | $C_N \pm 5\%$ |
| 损耗角正切值 $\tan \delta$ | $\leq 60 \times 10^{-4} @ 1\text{KHz}, 20^\circ\text{C}$ |
| 极间 T-T (两电极之间) | $2U_N 2s$ |
| 极壳 T-C (电极与外壳之间) | $2500\text{VAC } 2s$ |
| 绝缘电阻 IR | $10000s @ 20^\circ\text{C}$ ，湿度小于 65% |
| 耐久试验 | $1000h @ 1.35U_N, 85^\circ\text{C}$ |
| 破坏试验 | $1.3U_N + 10U_{NDC}$ (200V/min 升压) 电容 $< 1\% C_N$ |
| 最大电压爬升速率 dv/dt | $10V/\mu s$ |
| 湿热测试时间 | 21 天 |

| 认证 | |
|---|--|
|  | E315415 PROTECTED 10,000AFC 450VAC, 1-60 μ F, 85 $^\circ$ C |
|  | 250VAC, 2-60 μ F, Class B, 85 $^\circ$ C 450VAC, 2-60 μ F, Class B, 85 $^\circ$ C |
|  | 250VAC, 2-60 μ F, Class B, 85 $^\circ$ C 450VAC, 2-60 μ F, Class B, 85 $^\circ$ C |
|  | Compliance to LV directive 2014/35/EU |
|  | RoHS 2.0 |



印字信息（激光印字）



| | |
|---|---------|
| MKPR | 产品型号 |
|  | 自愈符号 |
| S3 | 安全等级 |
| 25 μ F \pm 5% | 额定容量及偏差 |
| 450VAC | 额定电压 |
| B | 预期寿命等级 |
| 50/60Hz | 额定频率 |
| 40/85/21 | 气候类别 |
| RoHS | 环保 |
| Lot No. | 生产批号 |
| Part No. | 产品编号 |

规格表

| 电压 VAC | 容量 μ F | 平底 D*H mm | 螺杆 D*H*M*L2 mm | 线长 L mm | 品号 Part No. |
|-----------|---------------|--------------|-------------------|------------|----------------|
| 250 | 2 | 25*55 | 28*55M8*11 | 200±10 | R25002XX |
| | 3 | 25*55 | 28*55M8*11 | 200±10 | R25003XX |
| | 4 | 25*55 | 28*55M8*11 | 200±10 | R25004XX |
| | 5 | 25*55 | 28*55M8*11 | 200±10 | R25005XX |
| | 6 | 28*55 | 28*55M8*11 | 200±10 | R25006XX |
| | 7 | 28*55 | 28*55M8*11 | 200±10 | R25007XX |
| | 8 | 30*55 | 30*55M8*10 | 200±10 | R25008XX |
| | 9 | 30*55 | 30*55M8*10 | 200±10 | R25009XX |
| | 10 | 30*55 | 30*55M8*10 | 200±10 | R25010XX |
| | 11 | 30*55 | 30*55M8*10 | 200±10 | R25011XX |
| | 12 | 35*58 | 35*58M8*11 | 200±10 | R25012XX |
| | 13 | 35*58 | 35*58M8*11 | 200±10 | R25013XX |
| | 14 | 35*58 | 35*58M8*11 | 200±10 | R25014XX |
| | 15 | 35*58 | 35*58M8*11 | 200±10 | R25015XX |
| | 16 | 35*58 | 35*58M8*11 | 200±10 | R25016XX |
| | 17 | 35*58 | 35*58M8*11 | 200±10 | R25017XX |
| | 18 | 35*58 | 35*58M8*11 | 200±10 | R25018XX |
| | 19 | 35*68 | 36*68M8*11 | 200±10 | R25019XX |
| | 20 | 35*58 | 35*58M8*11 | 200±10 | R25020XX |
| | 21 | 35*68 | 36*68M8*11 | 200±10 | R25021XX |
| | 22 | 35*68 | 36*68M8*11 | 200±10 | R25022XX |
| | 23 | 36*68 | 36*68M8*11 | 200±10 | R25023XX |
| | 24-32 | 40*68 | 36*68M8*11 | 200±10 | R2503XXX |
| | 33-38 | 40*78 | 40*68M8*11 | 200±10 | R2503XXX |
| 39-42 | 45*68 | 40*78M8*14 | 200±10 | R2504XXX | |
| 43-51 | 45*78 | 45*83M8*12 | 200±10 | R2504XXX | |
| 52-60 | 45*93 | 45*83M8*12 | 200±10 | R2505XXX | |

| 电压 VAC | 容量 μ F | 平底 D*H mm | 螺杆 D*H*M*L2 mm | 线长 L mm | 品号 Part No. |
|-----------|---------------|--------------|-------------------|--------------|----------------|
| 450 | 2 | 25*55 | 28*55M8*11 | 200 \pm 10 | R45002XX |
| | 3 | 28*55 | 28*55M8*11 | 200 \pm 10 | R45003XX |
| | 4 | 28*55 | 28*55M8*11 | 200 \pm 10 | R45004XX |
| | 5 | 30*55 | 30*55M8*10 | 200 \pm 10 | R45005XX |
| | 6 | 35*58 | 35*58M8*11 | 200 \pm 10 | R45006XX |
| | 7 | 35*58 | 35*58M8*11 | 200 \pm 10 | R45007XX |
| | 8 | 35*58 | 35*58M8*11 | 200 \pm 10 | R45008XX |
| | 9 | 35*68 | 36*68M8*11 | 200 \pm 10 | R45009XX |
| | 10 | 35*68 | 36*68M8*11 | 200 \pm 10 | R45010XX |
| | 11 | 35*68 | 36*68M8*11 | 200 \pm 10 | R45011XX |
| | 12 | 36*68 | 36*68M8*11 | 200 \pm 10 | R45012XX |
| | 13 | 40*68 | 40*68M8*11 | 200 \pm 10 | R45013XX |
| | 14 | 40*68 | 40*68M8*11 | 200 \pm 10 | R45014XX |
| | 15 | 40*68 | 40*68M8*11 | 200 \pm 10 | R45015XX |
| | 16 | 40*68 | 40*68M8*11 | 200 \pm 10 | R45016XX |
| | 17 | 40*78 | 40*78M8*14 | 200 \pm 10 | R45017XX |
| | 18 | 40*78 | 40*78M8*14 | 200 \pm 10 | R45018XX |
| | 19 | 40*78 | 40*78M8*14 | 200 \pm 10 | R45019XX |
| | 20-21 | 45*68 | 45*83M8*12 | 200 \pm 10 | R4502XXX |
| | 22-26 | 45*78 | 45*83M8*12 | 200 \pm 10 | R4502XXX |
| 27-33 | 45*93 | 45*93M8*11 | 200 \pm 10 | R4502XXX | |
| 34-42 | 50*93 | 50*93M8*11 | 200 \pm 10 | R4503XXX | |
| 43-55 | 50*118 | 50*116M8*12 | 200 \pm 10 | R4504XXX | |
| 56-60 | 55*120 | 55*120M8*12 | 200 \pm 10 | R4505XXX | |

使用条件

| | |
|------------------|---|
| 海拔：不超过 2,000 m | Recommended to use under altitude 2000m. |
| 污秽：在轻度污秽的大气下运行 | Defilement:best operating under mildly polluted atmosphere. |
| 运行温度：-40℃ ~ +85℃ | Operating temperature: -40℃~+85℃ |
| 最高允许过电压：1.1Un | Maximum allowable voltage: 1.1Un |
| 最大允许电流：1.3In | Maximum allowable current: 1.3In |
| 最大允许无功容量：1.35Qn | Maximum allowable reactive power capacity: 1.35Qn |

储存环境

电容器应贮存在温度为-10℃到+40℃、相对湿度不大于 70%RH、周围空气中无酸碱性及其他有害杂质的库房中。

Capacitors should be stored in a warehouse where the temperature is -10℃ to +40℃, the relative humidity is not greater than 70%RH, and the surrounding air is free of acid, alkali and other harmful impurities.

使用期限

建议出厂 1 年内装机使用；超过 1 年未装机，建议复测合格后再使用；超过 2 年未装机使用，不建议使用；为确保电容在最佳状态下运行，电容器使用到标称寿命时间后，请更换电容器。

It is recommended to install within 1 year from the factory; It has not been installed for more than 1 year, it is recommended to use after re-testing; Not recommended if it has not been used for more than 2 years; To ensure optimum operation of the capacitor, replace the capacitor after it has reached its nominal life time.

预期寿命

电容器在应用中，有多种因素会影响到电容器的使用寿命，如电压、电流、温度、湿度、谐波、辐射、海拔以及一些其它未知因素。预期寿命仅仅是考虑电压、温度的影响关系，基于长期耐久性试验的合格结果，再通过预期寿命理论计算公式计算该电容在不同工况下的预期寿命。因此，预期寿命仅作为选型参考，而不代表质保要求。

In the application of capacitors, there are many factors that will affect the service life of capacitors, such as voltage, current, temperature, humidity, harmonics, radiation, altitude and some other unknown factors. The expected life of the capacitor under different working conditions is calculated based on the qualified results of the long-term durability test, considering the influence of

voltage and temperature. Therefore, life expectancy is only used as a reference for selection and does not represent a warranty requirement.

电噪声

因薄膜振动产生的嗡鸣声是不可避免的，这是由于电容器薄膜受到两电极间库仑力的作用产生的振动而发出的声音。施加的电压和频率波形失真越严重，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。

The buzz generated by the film vibration is unavoidable and is the sound produced by the vibration of the capacitor film under the action of the coulomb force between the two electrodes. The more distorted the applied voltage and frequency waveform, the greater the buzz. But this buzz does not cause any damage to the capacitor.

安装拆卸

电容器的安装应便于以对流和辐射来散发由电容器损耗所产生的热量。电容器安装盒使用过程中应避免接触到油（否则须定购采用耐油材料设计生产的耐油耐高温电容）。

Capacitors shall be installed so that the heat generated by capacitor loss can be dissipated by convection and radiation. The capacitor mounting box should avoid contact with oil during use (otherwise, oil-resistant and high-temperature capacitors designed and produced with oil-resistant materials must be ordered).

安装及拆卸时应对电容两极进行放电，以免人体与电容两极形成回路触电。放电时请远离易燃易爆物。短路放电易损伤电容器，且会产生火花及响声。不可大力拉扯电容器电极引出端。禁止碰触运行中或设备停机后未放电的电容器。请勿自行拆解电容。

The capacitor poles should be discharged during installation and disassembly to avoid electric shock between the human body and the capacitor poles. Keep away from flammable and explosive materials when discharging. Short-circuit discharge is easy to damage the capacitor, and will produce sparks and sound. Do not pull the capacitor electrode outlet vigorously. Do not touch capacitors that are not discharged during operation or after the equipment is shut down. Do not disassemble the capacitor yourself.

环保声明

电容器原材料物质含量符合欧盟 RoHS 2.0 指令的限值要求。

The material content of the container meets the limit requirements of the EU RoHS 2.0 directive.