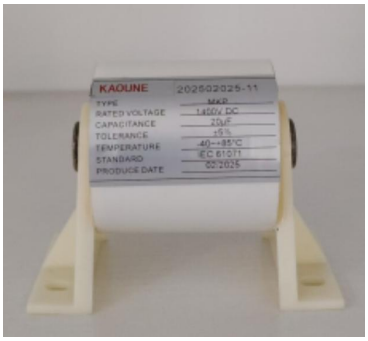
■ MKP-ML1
包胶式--交直流滤波薄膜电容器

产品简介 Product introduction

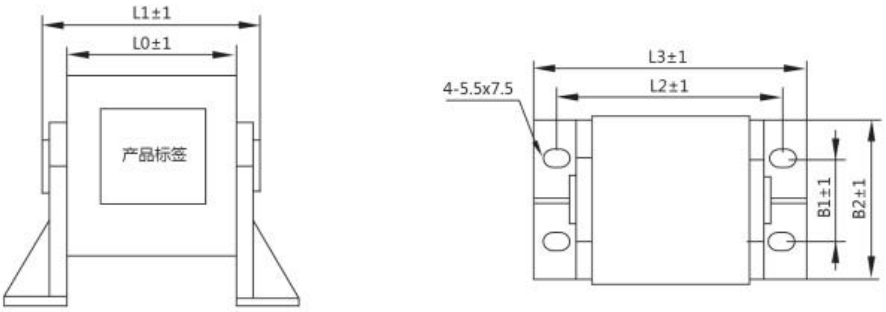
采用耐高温型聚丙烯薄膜介质，加厚型金属化电极，无感式结构，玛拉胶带封装，产品体积小，散热好，具备镀锡铜针、端子、螺母多种引出方式。广泛应用于各类电子设备的交直流滤波电路。

The products are made of temperature-resistant metalized polypropylene film, thickened metalized electrode, non-inductive structure, enveloped with PET adhesive tape.They are small in size, good heat dissipation, and weldedby tinned copper wire, steel lug and screw, etc. Widely usedin the AC & DC filter circuit of all kinds of electronic equipment.

实物图 Real Drawing

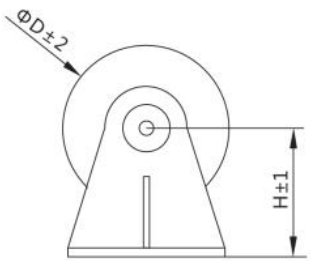


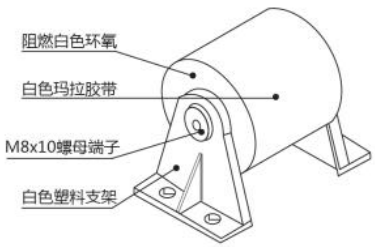
外形图 Outling Drawing



电气性能 Electrical properties

- 引用标准（Reference standard）：GB/T17702、IEC61071
- 气候类别（Climate category）：40/85/21
- 额定电压（Rated voltage）：400～1200V DC;400 ～800V AC
- 容量范围（Capacitance range）：10 ～100μF
- 容量偏差（Capacitance tolerence）：±5%（J）、±10%（K）
- 耐电压（Volatage proof）：
  极间（between terminals）：1.5Un(VDC)/10S
- 绝缘电阻（Insulation resistance）
  极间（between terminals）：≥10000S(100Vdc,60s)
- 损耗角正切（Tangent of loss angle(20℃)）：≤0.0012(100Hz)
- 电压爬升率（Pulse ries time(dv/dt)）：30V/μs Max





真空灌注

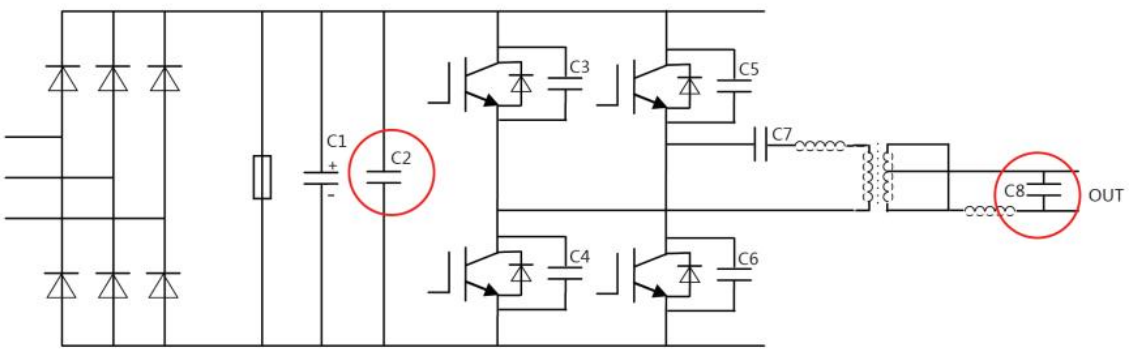
成品检验

常用规格 Dimension

Rater	800VDC				1400VDC			
Cap.	ΦD	L_0	L_3	B_1	ΦD	L_0	L_3	B_1
20μF	45	40	62	26	51	50	72	26
40μF	53	50	72	26				
50μF	58.5	50	72	26				
100μF	60	60	82	26				

	500VAC			
	ΦD	L_0	L_3	B_1
30μF	51	50	72	26
50μF	78.5	50	72	26

典型线路图 Typical circuit



C_2:高频滤波电容
High frequency filter capacitor

C_8:输出滤波电容
The output filter capacitor

● 订货信息表 Order information

MKP DC-FILM CAP.订货信息一览表				
序号 NO	类别 Catagory	技术指标 Technical indicators	客户需要参数 Customer parameters requirements	备注 Remarks
1	技术特性要求 Characteristics	额定电容（Rated capacitane）:C_N (μF)		
2		额定直流电压（Rated d.c. voltage）:U_N (V)		
3		纹波电压（Max. ripple voltage）:U_r (V)		
4		非周期冲击电压（Non-recurrent surge voltage）:U_S (V)		
5		最大电流（方均根值）（Max. current）:I_{max} (A)		
6		最大峰值电流（Max. peak current）: $\hat{I}$ (A)		
7		最大冲击电流（Max. surge current）: $\hat{I}_S$ (A)		
8		损耗角正切值（Tangent of the loss angle）: $\tan\delta$		
9		电容值允许偏差（Capacitance tolerance）: $\Delta C(\pm\%)$		
10	环境条件 Environment	环境空气温度（Cooling-air temperature）: θ_{amb} (℃)		
11		最低运行温度（Lowest operating temperature）: θ_{min} (℃)		
12		最高运行温度（Highest operating temperature）: θ_{max} (℃)		
13		空气相对湿度（Humidity）:%		
14		运行海拔条件（Altitude）: H_{asl} (m)		
15	过负荷 Overload conditions within one day	例如（For example）:		
16		30% of on-load duration / 1.1U_N		
17		30min / 1.15U_N		
18		5min / 1.2U_N		
19		1min / 1.3U_N		
20		100ms / 1.5U_N		
21	尺寸要求 Dimensions	如有明确要求请标明外形&安装尺寸、引出端型式&尺寸要求(可附图) Please indicate if there is an explicitly requested of shape & installation size, terminal form &size		
22	其他关键信息 Others	如:a)直流母线传输的最大功率P、直流侧MPPT（直流电压范围）、最大直流侧电压、逆变器效率η、载波频率、开关频率、纹波系数、调制比m、相移角ϕ、交流侧额定输出电流。 b)逆变电路线路图、电压波形、电流波形等。 eg:a) Maximum transmission power of the DC bus、DC voltage range、Maximun DC voltage(P)、Efficiency of the inverter、Carrier frequency、Switching frequency、Ripple factor、Modulation ratio、phase angle、rated output current of the AC side b) Inverter circuit diagram、voltage waveform、current waveform etc.		
说明：为了让产品更可靠、更安全、更高效地运行，一切为了您的满意，请于订货前尽可能提供以上信息（参数）。 Indirection：In order to make more reliable and safer products, operation more efficiency, all for our satisfaction,please provide the above information(parameters) before ordering as much as possible.				

●重要说明 Important note

◆KAOUNE并不了解每一个客户对产品的应用，也不比客户更了解他们对产品的应用。因此，客户负有最终的责任，根据其整机电路参数选择适合其的KAOUNE产品，并根据KAOUNE产品参数判定其是否适用。

◆我们也毫不避讳地指出，即使在正常的应用条件下无源电子元器件仍有可能在使用寿命结束前出现故障或失效。这在目前的技术水平下是无法完全排除的。因此，对于操作安全 水平要求非常高的应用场合，特别是当无源电子元器件出现故障时可能会危及人身安全或健 康的情况下，客户必须适当设计其应用装置或由客户采取措施（如安全保护性电路或冗余），确保在无源电子元件出现故障时，第三方不会受到伤害或损害。

◆我们的工程师持续不断地致力于改善产品。因此，本出版物所述产品可能会发生变化。所以，订货之前或订货的时候请咨询我们的销售工程师本出版物的产品说明和规格在多大程度上是适用的。我们保留产品尺寸及技术参数发生变更的权利。因此，我们不保证任何时候 均可购买到本出版物所列全部产品。

◆由于客户的应用领域、安装尺寸、回路参数要求千差万别，对于同一电压同一容值的电容器亦是如此。因此，建议在订货前尽可能详尽地提供您所要求的信息，包括但不限于电压、容值、外形尺寸、安装尺寸及本出版物中《订货信息一览表》中所列明的项目。

◆KAOUNE do not understand each client on the application of the product, nor more than customers about their products. Customers have the ultimate responsibi ity to select suitable KAOUNE products for their whole circuit parameters, and under KAOUNE products parameters determine its applicability.

◆We also forthrightly pointed out that even in normal conditions of passive electronic components, it is still wi l failure or breakdown before the end of its useful life. And it cannot be completely excluded in the current level of technology. Therefore, requires a high level of operational safety applications, especially when passive electronic components failure could endanger the personal safety or health of the case, The customer must be properly designed appliance or measures taken by the customer (such as security protective circuitry or redundancy), to ensure when the failure in the passive electronic components, the third party will not harm or damage.

◆KAOUNE engineers constantly committed to improve the product. Therefore, the publication of the product may change. Therefore, please consult our sales engineer before order. We reserve the right to change the product dimensions and technical parameters. Therefore, we cannot guarantee that at any time can be purchased to the publications listed all products.

◆Due to the customer's applications, installation size, circuit parameters requirements vary widely, as well as the same capacitor values for the same voltage. Therefore, we suggest that provide requested information as much details as possible before order, including but not limited to voltage, capacitance, dimensions, installation size and the other parameters items of order information.

● 敬告和警告 Warning

◆电容器经过耐电压测试后或退出运行后，其上存储的能量足以对人身造成伤害。因此， 在接触电容器出线端子之前必须首先经过电阻放电、再短接引出端子，确保残存电荷泄放掉。

◆金属化薄膜介质电容器不应过多直接短路放电。短路放电试验属于型式试验项目,做过型式试验的产品不宜再正常使用。

◆进行耐电压测试会对其绝缘造成损害，且该损害具备累积效应。

◆电容器与电路的连接应可靠，避免接触不良引起高频振荡造成电容器过压或过热。

◆避免电容器暴露于强酸、强碱及其他腐蚀性介质的环境中运行。

◆避免电容器在充满易燃易爆的气体或尘埃的环境中运行。

◆避免外部能量传导到电容器内部，如火、热、雷电。

◆避免电容器过温运行。

◆避免电容器异常过载。

◆避免核辐射。

◆After resistant voltage test or out of operation, the capacitor stored energy is sufficient to cause the damage to the human. Therefore, in contact with the capacitor outlet terminals must discharge through the resistor first, and then short-circuited lead terminal, ensure that the residual charge of release.

◆Metalized film dielectric capacitors should not over discharge to the short circuit. Short circuit discharge test are type of pilot projects, the test products are not appropriate to normal use.

◆Excessive resistant voltage capacitor test will damage the insulation, and the damage has a cumulative effect.

◆The capacitor circuit connection should be reliable, to avoid capacitor overvoltage or overheating by high-frequency oscillation because of poor contact.

◆Avoid capacitor is exposed to strong acid, alkali and other corrosive medium environment operate.

◆Avoid the capacitor filled with flammable and explosive gas or dust environment operate.

◆Avoid external energy transmitted to the capacitor internal, such as fire, heat, electricity.

◆Avoid capacitor operate over-temperature.

◆Avoid capacitor abnormal overload.

◆Avoid nuclear radiation.