





## **1 SCOPE:**

This product specification specifies the product's performance and test methods as a basis for technical validation.

## **2 General Specification:**

### 2.1 Product application range:

The product can be used as an backup power source in electronic devices such as RAM, smart meters, motor drives, clock circuits, toys, and the like.

### 2.2 Standard test conditions:

Under normal circumstances, the test is carried out under standard atmospheric pressure, temperature 5~35 ° C, relative humidity less than 85%; the standard test conditions in this specification are standard atmospheric pressure, temperature 25 ° C, relative humidity less than 60%.

### 2.3 According to the standard:

IEC 62391-1 "Fixed electric double-layer capacitors for use in electronic equipment - Part 1: Generic specification  
Q/KMNY001-2009 "Electrochemical Capacitor"

## **3 Product Structure**

This product is based on the principle of electric double layer capacitor. The inside uses activated carbon as the positive and negative electrode. The electrolyte is separated from the diaphragm by the electrolyte. The aluminum shell is sealed with the rubber plug. The lead is on the same side of the product.

#### 4 General Specification

Item		Specification/Condition
01	Part No	MK-16V-P3FYS 20F-6C1B-YS
02	Rate capacitance (F 25°CΔV = 0.8U-0.4U I = 1A)	3
03	Capacitance tolerance	-10%~+30%
04	Rated Voltage	16
05	Absolute Maximum Voltage (V)	16.2
06	Rated Current (A)	3
07	Maximum Peak Current, 1 second (non repetitive)	10
08	Pressure equalization method	Equipped with voltage equalization circuit
09	Operating temperature range	-40°C~70°C
10	Maximum equivalent series resistance ESR(mΩ 1KHz)	160
11	Shell packaging	Thermoplastic casing
12	Output method	Pin output

## 5 Environmental

Item		Specification/Condition
01	Temperature characteristics	+70℃时   $\Delta C/C$   $\leq 30\%$ , ESR $\leq$ Specified value(25℃) -40℃时   $\Delta C/C$   $\leq 30\%$ , ESR $\leq 4$ times the specified value (25℃)
02	High temperature load	+70℃ Rated voltage, after 1000h,   $\Delta C/C$   $\leq 30\%$ , ESR $\leq 4$ times the specified value
03	High temperature without load	+70℃, after 1000 $\pm$ 4h,   $\Delta C/C$   $\leq 30\%$ , ESR $\leq 2$ times the specified value
04	Humidity Resistance	Add the rated voltage and 500,000 cycles of charge and discharge experiments at room temperature,   $\Delta C/C$   $\leq 30\%$ , ESR $\leq 4$ times initial value.

## 6 KAM标识

KAM MARK

**8 Product size**

Size ( mm ) (L*W*H)	About 98.5×17×40
Output method	Pin output
Output description	Positive electrode: long lead pin Negative electrode: short lead pin

KAMCAP

**9 Precautions for use**

- (1) Supercapacitors should be used at nominal voltage
- (2) The super capacitor has polarity and is used according to the specified polarity.
- (3) Ambient temperature affects the life of supercapacitors
- (4) There is a voltage drop  $\Delta V=IR$  at the moment of discharge
- (5) It should be stored in an environment where the temperature is  $-40^{\circ}\text{C} \sim 70^{\circ}\text{C}$  and the relative humidity is less than 60%.
- (6) Do not store in places with relative humidity greater than 85% or containing toxic gases
- (7) Supercapacitors should not be used in high frequency charging and discharging circuits
- (8) When supercapacitors are used in series, there is a voltage balance problem between cells
- (9) For other problems, please consult the manufacturer or refer to the relevant technical information of the supercapacitor instructions.