



CRC NEW ENERGY

# APPROVAL SHEET

TO: 直流支撑电容 40uF ± 5 %  
1100V

Main Materials		<b>MARKING &amp; OUTLINE DRAWING</b> 
Construction	Materials	
Dielectric	Metallized Polypropylene Film	
Terminal	Tinned copper wire/plate	
Filling	Flame-retardant epoxy resin , white	
Case	Flame-retardant plastic case, grey	

Part No.	TYPE	Dimensions (mm)							NOTE
		W	H	T	P	P1	L	ΦD	
FC6121	MKP-FC 40μF J 1100VDC	57.5	50	35	52.5	20.3	3.5	1.2	

CUSTOMER CONFIRMATION			CRC OFFER		
STAMP	APPROVED BY	CHECKED BY	STAMP	APPROVED BY	PREPARED BY
					田星月
DATE			DATE	2019-03-25	

SHENZHEN CRC NEW ENERGY CO., LTD

6th and 7th Floor R&D Building, Yanchuan North Industrial Park,

Songgang Town, Baoan District, Shenzhen, China

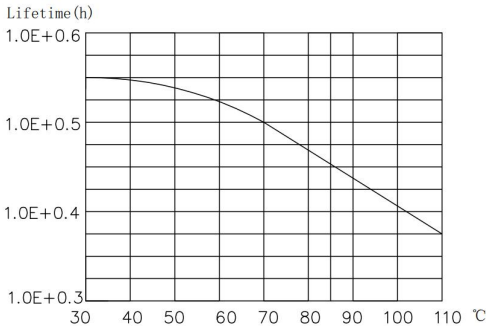
TEL: +86 - 0755 - 29948883 / 29948998 FAX: +86 - 0755 - 29948906 <http://www.csdcap.com>

# Technical Data

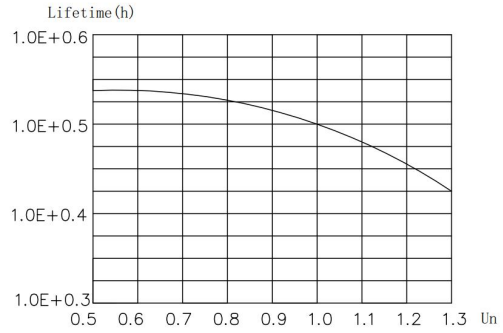
Items	Symbols	Values						
Rated capacitance	$C_N$	$40\mu\text{F} \pm 5\%$ 1KHz/25°C						
Rated voltage	$U_N$	1100V.DC						
Non-recurrent surge voltage	$U_s$	1700V.DC						
Maximum current	$I_{rms}$	20A						
Maximum peak current	$\hat{i}$	400A						
Maximum surge current	$I_s$	1200A						
Series resistance	$R_s$	$\leq 3.1\text{m}\Omega$ 1KHz/25°C						
Tangent of the loss	$\tan \delta$	$\leq 0.0015$ 1KHz/25°C						
Insulation Resistance	$C \times R_{is}$	$\geq 5000\text{S}$ 100V.DC/60S						
Self inductance	$L_e$	$\leq 40\text{nH}$ 1KHz/25°C						
Lowest operating temperature	$\Theta_{min}$	-40°C						
Maximum operating temperature	$\Theta_{max}$	105°C						
Operating humidity	RH	0~95%						
Service life		100000h/70°C/ $U_N$						
At $\Theta_{hotspot}$		$\leq 105^\circ\text{C}$						
Failure quota		<100Fit						
Flame retardant grade		UL94-V0						
<b>Test data</b>								
Voltage test between terminals	$V_{tt}$	1650V.DC/10S						
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td rowspan="5" style="text-align: center; vertical-align: middle;">过电压</td> <td style="text-align: center;">1.1 <math>U_N</math> (30% of on-load-dur.)</td> </tr> <tr> <td style="text-align: center;">1.15 <math>U_N</math> (30min/day)</td> </tr> <tr> <td style="text-align: center;">1.2 <math>U_N</math> (5min/day)</td> </tr> <tr> <td style="text-align: center;">1.3 <math>U_N</math> (1min/day)</td> </tr> <tr> <td style="text-align: center;">1.5 <math>U_N</math> (30ms every time, 1 000times during the life of the capacitor)</td> </tr> </table>			过电压	1.1 $U_N$ (30% of on-load-dur.)	1.15 $U_N$ (30min/day)	1.2 $U_N$ (5min/day)	1.3 $U_N$ (1min/day)	1.5 $U_N$ (30ms every time, 1 000times during the life of the capacitor)
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	1.5 $U_N$ (30ms every time, 1 000times during the life of the capacitor)							
Operating altitude		2000m (max) 3000 m:0.85 $U_N$						
With reference to the standard	GB/T 17702-2013	IEC61071:2007						

# ELECTRICAL CHARACTERISTICS OF FILM CAPACITOR

## 1. Lifetime Expectancy

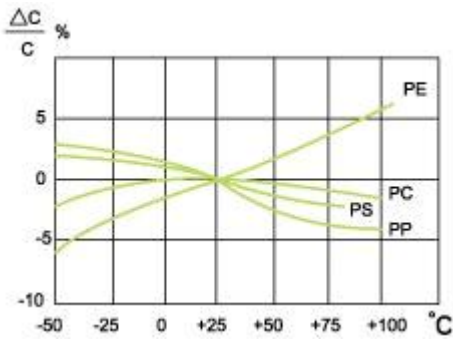


Lifetime expectancy vs. Charging temperature

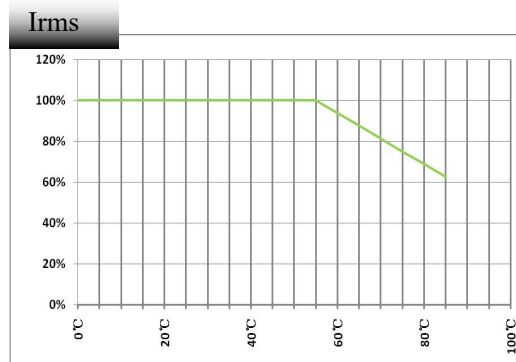


Lifetime expectancy vs. Charging voltage

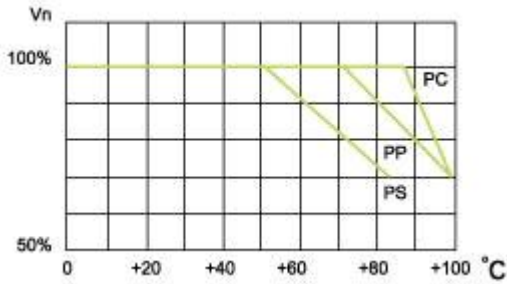
## 2. Temperature Characteristics



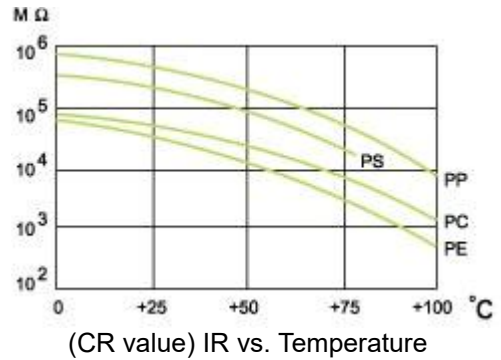
Capacitance change rate vs. Temperature



Operating current vs. Temperature

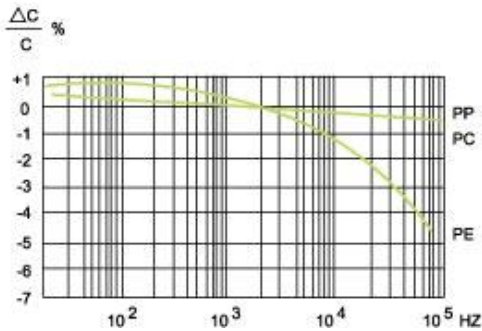


Operating voltage vs. Temperature

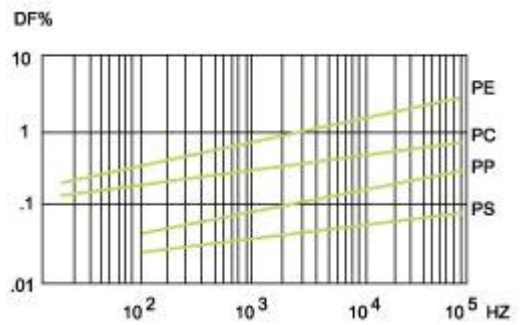


(CR value) IR vs. Temperature

## 3. Frequency Characteristics



Capacitance change rate vs. Frequency



Dissipation factor vs. Frequency