



# ALUMINUM ELECTROLYTIC CAPACITORS

## SKC

### Low Impedance & Long Life ( +105°C 低阻抗&长寿命) Series

- Features :105°C 4000~8000 hours,Low impedance ,Long Life.  
特点:低阻抗 ,长寿命, 105°C 4000~8000小时.
- Recommended Applications .Apply to the power adapter, switching power supply, charger power, LED power, supply high frequency electronic circuit  
适用于适配器电源,开关电源,LED电源, 充电器电源高频电子线路中.
- Corresponding product to RoHS (2011/65/EU)  
符合RoHS要求的相应产品(2011/65/EU)

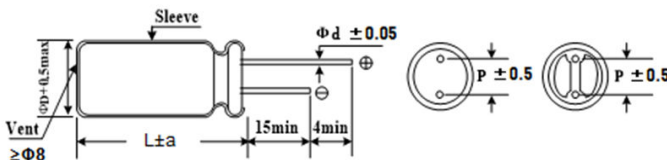


### Specifications(技术性能)

Item 项目	Characteristics 性能											
Operating Temperature Range 温度范围	-40 ~ +105°C				-40 ~ +105°C				-25 ~ +105°C			
Rated Voltage Range 电压范围	6.3 ~ 100VDC				160 ~250VDC				350 ~450VDC			
Rated Capacitance Range 容量范围	1 ~ 18000µF											
Capacitance Tolerance 容量偏差	± 20 % at 120Hz , 20°C											
Leakage Current (MAX) (20°C) 泄漏电流	I=0.01CV or 3(µA) whichever is greater.						I=0.03CV+10(µA) or 3(mA) , whichever is smaller.					
	After rated voltage applied for 2 min 两者取较大值, 2分钟测试						After rated voltage applied for 2 min 两者取较小值, 2分钟测试					
Dissipation Factor 损耗角 (tanδ) (120Hz ,20°C)	WV(V)	6.3	10	16	25	35	50	63	100	160~250	350~450	
	tan δ	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08	0.15	0.20	
Capacitance > 1000µF, add 0.02per another1000µF.容量大于1000uF每增加1000uF损耗角增加0.02.												
Low Temperature Stability Impedance Ratio (MAX) 低温阻抗比	Z(120Hz)	6.3	10	16	25	35	50	63	100	160~250	350~400	450
	Z-25°C / Z+20°C	4	3	3	3	3	3	3	2	3	5	6
	Z-40°C / Z+20°C	8	6	4	4	3	3	3	3	4	-	-
High Temperature Load Life 高温负载耐久性	After applying rated voltage for 4000~8000 hours at 105°C. the capacitors shall meet the following requirements. 在105°C环境下连续施加额定电压4000~8000小时后, 符合以下要求.											
	Capacitance Change 容量	Within ± 25 % of initial value 在初始值的±25%										
	Dissipation Factor 损耗角	Not more than 200% of the specified value 不超过标准值的200%										
	Leakage Current 泄漏电流	Initial specified value or less 标准值内										
	Life Time: 试验时间	φD(mm)	5~6.3	8	10~13	16higher						
Life(H)	4000	5000	6000	8000								
High Temperature Shelf Life 高温放置耐久性	After leaving capacitors under no load at 105°C for 1000 hours.the capacitors shall meet the same requirement as Endurance. 在105°C环境下不加负载放置1000小时后电性能同耐久性要求.											

### Diagram of Dimensions

外形尺寸



Unit: mm

φD	5	6.3	8	10	13	16	18
P	2.0	2.5	2.5/3.5	5.0	5.0	7.5	7.5
φd	0.5	0.5	0.5	0.6	0.6	0.8	0.8
a	(L<20)1.5			(L≥20)2.0			

### Multiplier for Ripple Current

(1) Frequency Coefficient (频率系数)

cap(µf)	120	1k	10k	100k
1~5.6	0.30	0.40	0.90	1.00
6.8~180	0.40	0.75	0.90	1.00
220~560	0.50	0.85	0.94	1.00
680~1800	0.60	0.87	0.95	1.00
2200~3900	0.75	0.90	0.95	1.00
4700~18000	0.85	0.95	0.98	1.00

(2) Temperature Coefficient(温度系数)

Temperature (°C)	-45	60	70	85	105
Factor	2.33	2.17	2.00	1.75	1.00



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Series

■ DIMENSIONS Rated Capacitors, Voltage(Surge),Case Size,Imp,Ripple Current. 容量、电压(浪涌电压)、尺寸、阻抗、纹波电流.

Capacitance (μF)	Rated (Surge) Voltage (V)											
	6.3 (8)			10 (13)			16 (20)			25 (32)		
	Size	Imp	Ripple	Size	Imp	Ripple	Size	Imp	Ripple	Size	Imp	Ripple
47				5x11	1.000	140	5x11	0.750	160	5x11	0.600	185
56							5x11	0.700	170	5x11	0.550	205
68							5x11	0.600	180			
100	5x11	0.650	182	5x11	0.500	200	6.3x12	0.280	310	6.3x12	0.250	330
120							6.3x12	0.260	322	8x12	0.200	440
220	6.3x12	0.340	290	6.3x12	0.220	365	6.3x12	0.170	430	8x12	0.140	570
				8x12	0.200	420	8x12	0.160	480			
330	6.3x12	0.220	340	8x12	0.160	520	8x12	0.130	565	8x16	0.090	780
							8x14	0.126	605	10x13	0.090	805
470	6.3x12	0.160	473	8x12	0.120	608	8x14	0.095	696	10x13	0.078	865
	8x12	0.140	565	8x14	0.115	660	8x16	0.092	738	10x16	0.076	950
							10x13	0.092	768			
680	8x12	0.120	630	8x16	0.098	756	8x16	0.075	865	10x16	0.060	1080
	8x14	0.110	670	10x13	0.095	720	8x20	0.072	950	10x20	0.058	1200
							10x16	0.072	984			
820	8x16	0.095	730	10x16	0.080	948	10x20	0.058	1190	10x25	0.045	1508
	10x13	0.095	756				13x17	0.056	1285	13x20	0.045	1580
1000	8x16	0.087	776	8x20	0.072	976	10x20	0.052	1268	13x20	0.042	1670
	10x13	0.087	806	10x16	0.070	1000	13x20	0.050	1406	13x25	0.040	1850
1200	8x20	0.080	902	10x20	0.058	1213	10x25	0.046	1470			
	10x16	0.078	924	13x17	0.056	1310	13x20	0.046	1540			
1500	10x16	0.060	1085	10x25	0.052	1420	13x20	0.042	1670			
	10x20	0.058	1189	13x20	0.050	1495	13x25	0.040	1842			
2200	10x20	0.048	1329	13x20	0.045	1625	13x25	0.036	1960			
	13x20	0.046	1540	13x25	0.043	1790	16x20	0.036	2005			
3300	10x25	0.042	1595	13x30	0.036	2128	16x25	0.029	2415	18x25	0.024	2965
	13x20	0.042	1670	16x25	0.036	2205	18x20	0.029	2354			
4700	16x25	0.034	2281	16x25	0.032	2465	16x30	0.024	2930	18x35	0.020	3860
							18x25	0.024	2890			
10000	16x35	0.026	2746	18x35	0.024	3340	18x40	0.020	3840			
18000	18x40	0.022	3462									

☆ Size: φDx L (mm) ☆ Ripple Current: (mA/rms), 105°C, 100KHz ☆ Impedance (Ω), 20°C, 100KHz



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Capacitance (μF)	Rated (Surge) Voltage (V)											
	35 (44)			50 (63)			63 (79)			100 (125)		
	Size	Imp	Ripple	Size	Imp	Ripple	Size	Imp	Ripple	Size	Imp	Ripple
1				5x11	4.000	67						
2.2				5x11	2.500	85						
3.3				5x11	2.200	105						
4.7				5x11	2.000	113						
10				5x11	2.000	120	5x11	1.400	132	6.3x12	0.950	170
22	5x11	0.650	192	5x11	2.000	150	6.3x12	0.700	210	8x12	0.480	289
33	5x11	0.580	210	6.3x12	0.800	245	6.3x12	0.450	265			
47	6.3x12	0.390	273	6.3x12	0.390	290	8x12	0.350	340	10x13	0.280	450
68	6.3x12	0.190	438	8x12	0.270	420	8x12	0.260	382	10x16	0.200	580
82	6.3x12	0.160	473	8x12	0.240	452	10x13	0.200	536	10x20	0.160	750
100	8x12	0.140	580	8x12	0.180	550	8x16	0.170	568	10x20	0.140	805
				10x13	0.170	657	10x13	0.160	590			
150	8x12	0.130	635	10x13	0.120	760	10x16	0.110	760	13x20	0.090	1100
220	8x12	0.092	663	10x16	0.095	957	10x20	0.085	940	13x25	0.075	1332
	8x16	0.087	840	10x20	0.092	1070	13x17	0.085	1016	16x20	0.075	1364
	10x13	0.087	865				13x20	0.082	1089			
330	8x20	0.068	1010	10x16	0.065	1090	13x20	0.058	1406	16x25	0.054	1742
	10x16	0.065	1050	10x20	0.062	1190	13x25	0.056	1550			
				13x20	0.060	1380						
470	10x16	0.054	1176	10x20	0.056	1420	13x25	0.052	1638	16x30	0.048	2068
	10x20	0.052	1329	13x20	0.054	1580	16x20	0.052	1675	18x25	0.048	2042
680	10x20	0.049	1421	13x25	0.048	1820	16x25	0.045	1910	18x35	0.040	2526
	13x17	0.047	1548	16x20	0.048	1857	18x20	0.045	1861			
820	13x20	0.040	1890	13x25	0.045	2148	16x30	0.042	2210			
				16x20	0.045	2180	18x25	0.042	2183			
1000	13x25	0.036	1924	16x25	0.038	2416	16x30	0.036	2386			
	16x20	0.036	2005	18x20	0.038	2354						
2200	18x25	0.028	2807	18x35	0.026	3522						
3300	18x35	0.023	3685									

☆ Size:φDx L (mm) ☆ Ripple Current: (mA/rms), 105℃,100KHz ☆ Impedance (Ω),20℃,100KHz



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Capacitance ( $\mu$ F)	Rated (Surge) Voltage (V)									
	160 (200)		200 (250)		250 (300)		400 (450)		450 (500)	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
1							6.3x12	24		
							8x12	29		
2.2							6.3x12	33	8x12	38
							8x12	40		
3.3							6.3x12	35	8x12	41
							8x12	42	10x13	47
4.7					6.3x12	48	8x12	54	8x16	58
					8x12	55	8x14	60	10x13	64
6.8					6.3x12	89	8x16	72	10x16	85
					8x12	98	10x13	72		
10	8x12	90	8x12	110	8x12	125	10x16	121	10x16	135
	10x13	100	10x13	128	10x13	140	10x20	140	10x20	148
15					10x13	148	10x20	196	13x20	220
					10x16	160	13x20	220		
22	8x16	120	10x13	160	10x16	184	13x20	270	13x20	296
	10x13	120	10x16	184	10x20	200	13x25	283		
	10x16	138								
33	10x13	157	10x16	224	13x20	320	13x25	318	13x25	330
	10x16	180	10x20	260			16x20	309		
47	10x16	224	13x20	360	13x25	436	16x25	385	16x25	410
	10x20	260					18x20	357		
68	13x20	360	13x20	430	16x20	520	18x25	440		
82			13x20	475	16x20	552	18x30	545		
			13x25	500						
100	13x20	500	16x20	567	16x25	612	18x35	650	18x35	670
	13x25	475								
	16x20	509								
120	13x25	560					18x35	720		
150	16x25	650	16x25	756	18x25	776				
220	16x30	750	18x30	960	18x40	860				
	18x25	725								

☆ Size:  $\phi$ Dx L (mm) ☆ Ripple Current: (mA/rms), 105°C, 120Hz