



# *Aluminum Electrolytic Capacitors* **XL** Series

## Features

- Low Impedance, High Ripple Current
  - Load Life of 2000 ~ 3000 Hours at 105°C.

勝特力材料 886-3-5753170  
胜特力电子(上海) 86-21-34970699  
胜特力电子(深圳) 86-755-83298787

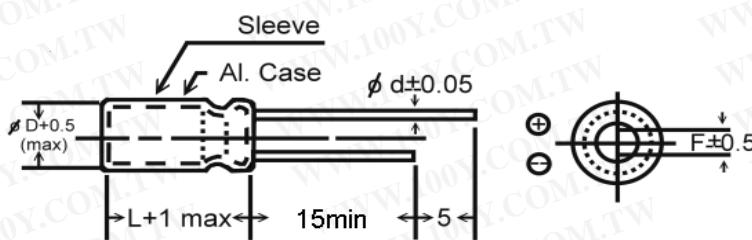
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## Specification

Items	Performance																																	
Capacitance Tolerance	$\pm 20\%$				(at 120Hz, 25°C)																													
Rated Voltage Range	6.3 to 50 VDC																																	
Capacitance Range	100 to 4700uF																																	
Operating Temperature Range	-40 to + 105°C																																	
Leakage Current (at 25°C)	$I \leq 0.01 CV$ or $3 (\mu A)$ , whichever is greater.																																	
	After 2 minutes application of working voltage.  I= Leakage current ( $\mu A$ ), C= Rated capacitance (uF), V= Rated voltage (V)																																	
Dissipation Factor ( $\tan \delta$ at 120Hz, 25°C)	Rate Voltage	6.3	10	16	25	35																												
	$\tan \delta$ (max)	0.22	0.19	0.16	0.14	0.12																												
	For capacitance $> 1000\text{uF}$ , add 0.02 per 1000uF increase.																																	
Low Temperature characteristics (at 120Hz)	Impedance ration max.																																	
	Rate Voltage	6.3	10	16	25	35																												
	-25°C/25°C	3	3	2	2	2																												
	-40°C/25°C	6	6	4	4	3																												
Load Life	Application of W.V. at +105°C, the capacitor shall meet the following limits.																																	
	Capacitance change	: $\leq \pm 25\%$ of initial value																																
	Dissipation factor	: $\leq 200\%$ of initial specified value																																
	Leakage Current	: $\leq$ Initial specified value																																
	Life Time	: 3000 hours for $\phi D > 10$ 2000 hours for $\phi D = 8, 10$																																
Shelf Life	After storage for 500 hours at 105°C, with no voltage applied and being stabilized at + 25°C, Capacitor shall meet the limit specified in load life.																																	
Ripple Current & Frequency Multipliers	<table border="1"> <thead> <tr> <th>CAP.(uf)</th> <th>Freq.(Hz)</th> <th>60(50)</th> <th>120</th> <th>1K</th> <th>10K</th> <th>100K</th> </tr> </thead> <tbody> <tr> <td>under 330</td> <td>0.60</td> <td>0.70</td> <td>0.85</td> <td>0.95</td> <td>1.00</td> <td></td> </tr> <tr> <td>470 to 1000</td> <td>0.65</td> <td>0.75</td> <td>0.90</td> <td>0.98</td> <td>1.00</td> <td></td> </tr> <tr> <td>1200 up above</td> <td>0.75</td> <td>0.80</td> <td>0.95</td> <td>1.00</td> <td>1.00</td> <td></td> </tr> </tbody> </table>						CAP.(uf)	Freq.(Hz)	60(50)	120	1K	10K	100K	under 330	0.60	0.70	0.85	0.95	1.00		470 to 1000	0.65	0.75	0.90	0.98	1.00		1200 up above	0.75	0.80	0.95	1.00	1.00	
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Ripple Current & Temperature Multipliers	Temperature (°C)			85		105																												
	Multiplier			1.70		1.00																												

# Aluminum Electrolytic Capacitors

**XL** Series



D	8	10	13
P	3.5	5.0	5.0
d	0.5	0.6	

## DIMENSION & PERMISSIBLE RIPPLE CURRENT

VDC uF	6.3V			VDC uF	10V		
	φ DxL (mm)	Ripple Current (mA/rms, 105°C)	Impedance (Ωmax.) 25°C, 100KHz		φ DxL (mm)	Ripple Current (mA/rms, 105°C)	Impedance (Ωmax.) 25°C, 100KHz
<b>1000</b>	8x12	610	0.085	<b>1000</b>	10x13	900	0.045
	8x14	840	0.065		10x16	1200	0.045
<b>1200</b>	10x16	1250	0.050	<b>1200</b>	10x20	1650	0.030
<b>1500</b>	10x20	1700	0.030	<b>1500</b>	10x20	1650	0.030
<b>2200</b>	10x20	1700	0.030		10x25	2000	0.030
	10x25	2000	0.030	<b>2200</b>	10x25	2000	0.030
<b>2700</b>	10x25	2000	0.030		13x21	2100	0.030
<b>3300</b>	13x21	2100	0.028	<b>3300</b>	13x26	2500	0.030
<b>4700</b>	13x26	3000	0.028	<b>4700</b>	13x36	3100	0.030

VDC uF	16V			VDC uF	25V		
	φ DxL (mm)	Ripple Current (mA/rms, 105°C)	Impedance (Ωmax.) 25°C, 100KHz		φ DxL (mm)	Ripple Current (mA/rms, 105°C)	Impedance (Ωmax.) 25°C, 100KHz
<b>330</b>	8x12	610	0.085	<b>220</b>	8x14	600	0.085
	8x20	840	0.05		8x14	840	0.065
<b>470</b>	10x13	900	0.06	<b>330</b>	10x13	900	0.060
	10x20	1650	0.03		10x16	1100	0.055
<b>1000</b>	10x25	2000	0.03	<b>470</b>	10x16	1250	0.050
	13x21	2100	0.03		10x25	2000	0.030
<b>2200</b>	10x25	2000	0.03	<b>1000</b>	13x21	2100	0.030
	13x26	2500	0.03		<b>1500</b>	13x26	2500
<b>2700</b>	13x30	3000	0.03	<b>2200</b>	13x36	3100	0.030

VDC uF	35V			VDC uF	50V		
	φ DxL (mm)	Ripple Current (mA/rms, 105°C)	Impedance (Ωmax.) 25°C, 100KHz		φ DxL (mm)	Ripple Current (mA/rms, 105°C)	Impedance (Ωmax.) 25°C, 100KHz
<b>220</b>	10x13	900	0.065	<b>100</b>	8x12	450	0.250
	10x16	1250	0.05		<b>220</b>	10x20	1100
<b>470</b>	10x20	1650	0.03	<b>330</b>	10x25	1250	0.045
	13x26	2150	0.03		<b>470</b>	13x21	1900

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