

ALUMINUM ELECTROLYTIC CAPACITORS

LHA series

SUPER LONG LIFE 8000~10000HRS

超長壽命 8000~10000 小時

FEATURES 特性

- Load Life:105°C 8000~10000 hours
壽命: 105°C 8000~10000 小時
- High Ripple Current
高紋波
- For Electronic Ballast, Power Supply
針對電子安定器, 電源供應器

SPECIFICATIONS

Item 項目	Performance Characteristics 特性								
Operating Temperature Range 工作溫度範圍	-40°C ~ +105°C								
Rated Voltage Range 額定電壓範圍	160V~500W.V.								
Capacitance Range 靜電容量範圍	3.3~680 μ F								
Capacitance Tolerance 靜電容量誤差	$\pm 20\%$ (20°C, 120Hz)								
Leakage Current 洩漏電流	Nominal Capacitance $\leq 10 \mu$ F I=0.02CV +25uA(After 2 minutes) 額定容量 $\leq 10 \mu$ F I=0.02CV +25uA(2 分鐘後) Nominal Capacitance $> 10 \mu$ F I=0.02CV(After 2 minutes) 額定容量 $> 10 \mu$ F I=0.02CV(2 分鐘後)) I=Leakage Current (μ A), C=Nominal Capacitance (μ F), V=Rated Voltage(V) I=洩漏電流 (μ A), C=額定容量 (μ F), V=額定電壓(V)								
Dissipation Factor (tan δ) 散逸因素 (損失角正切值)	Rated voltage (V) 額定電壓(V)	160	200	250	350	400~420	450	500	MAX (20°C, 120Hz)
	Tan δ 損失角正切值	0.15	0.15	0.15	0.20	0.20	0.20	0.20	
Low Temperature Stability Impedance Ratio(MAX) 低溫特性阻抗比率	Rated voltage (V) 額定電壓 (V)	160	200	250	350	400~420	450~500	MAX (120Hz)	
	Z(-25°C)/Z(+20°C)	3	3	3	6	6	6		
	Z(-40°C)/Z(+20°C)	8	8	8	17	17	17		

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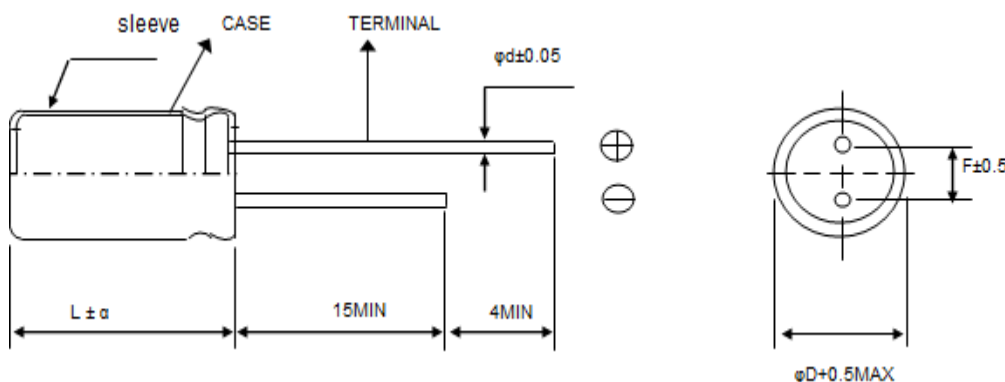
Load Life 負荷壽命	After life test at conditions stated in the table below, the capacitors shall meet the following requirement. 依據以下壽命要求印加額定紋波電流後，電容需符合以下要求。			
	Leakage Current 洩漏電流	Not more than the specified value. 不超出規格值.	Case Dia	Life Time(hrs)
	Capacitance Change 容量變化率	Within $\pm 20\%$ of initial value. 初始值 $\pm 20\%$ 以內	$\varphi D \leq 8$	8000
	Dissipation Factor 散逸因素	Not more than 200% of the specified value. 不超出規格值的 2 倍	$\varphi D \geq 10$	10000
Shelf Life 放置壽命	After leaving capacitors under no load at 105°C for 1000 hours, the capacitors shall meet the following requirements 電容放置在 105°C 無印加電壓的情況下儲存 1000 小時後，電容需符合以下要求。			
	Leakage Current 洩漏電流	Not more than the specified value 不超出規格值.		
	Capacitance Change 容量變化率	Within $\pm 20\%$ of initial value. 初始值 $\pm 20\%$ 以內		
	Dissipation Factor 散逸因素	Not more than 200% of the specified value. 不超出規格值的 2 倍		
Standard 參照標準	According to JIS C 5101 依據 JIS C 5101 標準			

Frequency coefficient

頻率系數

Frequency(Hz)	120	1k	10k	100k \leq
Coefficient	0.70	0.80	0.90	1.00

DIMENSIONS 尺寸(mm)



φD	6.3	8	10	12/12.5/13	16	18
φd	0.5	0.6	0.6	0.6	0.8	0.8
F	2.5	3.5	5.0	5.0	7.5	7.5
α	$L \leq 19: \alpha = 1.5, \quad L \geq 20: \alpha = 2.0$					



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STANDARD SIZES AND RIPPLE CURRENT

尺寸及紋波標準

SIZE ϕ DxL(mm)Ripple Current(mA 105°C 100KHz) r.m.s

W.V		160(2C)		200(2D)		250(2E)		350(2V)		400(2G)		420(2H)		450(2W)		500(2Z)	
		Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
3.3	3R3									8x11.5 10x12.5	70 125						
4.7	4R7					8x11.5	140	10x16	160	10x12.5	150			8x12 10x16	80 100		
6.8	6R8					8x11.5	160	10x16	220	10x12.5 10x20	180 220	10x20	130	10x20 12.5x20	130 150		
10	100	10x16	240	8x11.5 10x16	160 250	10x12.5 10x20	225 280	10x20	280	10x16 12.5x20	230 280	12.5x20	230	10x20 12.5x16 16x25	200 230 235	12.5x20	270
15	150			10x16	390	8x16	200			10x16 12.5x16	200 240	12.5x25	390	8x40 10x20 12.5x20 16x20	380 330 380 405	12.5x20 16x20	400 450
18	180					10x16	400			12.5x20	300						
22	220	8x16 10x16	460 480	10x20	400	10x16 12.5x20	500 600	12.5x20	350	8x45 10x25 12.5x20 16x20	460 301 310 390	8x45 16x25	480 430	8x55 10x40 13x20 16x20 18x20	520 560 380 415 630	12.5x35	530
27	270			10x16	430					8x50 10x40	500 520	8x55 10x40	540 580	10x40	580		
33	330	10x20 12.5x20	520 550	10x20 12.5x20	500 600	12.5x20	650	16x20 16x25	425 500	8x60 10x40 16x20 18x20	600 360 450 740	10x40 12.5x35 16x20 16x35.5	740 750 620 650	10x40 12.5x40 13x25 16x20 18x20	720 800 550 600 625	18x20	660
39	390									12.5x20 12.5x31.5	510 635	10x45	820	10x50 12.5x40	810 900		

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SIZE φ DxL(mm)Ripple Current(mA 105°C 100KHz) r.m.s

W.V		160(2C)		200(2D)		250(2E)		350(2V)		400(2G)		420(2H)		450(2W)		500(2Z)	
Cap(μF)		Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
47	470	10x20	600	10x20	550	12.5x20	650	16x25	580	12.5x31.5	700	10x50	920	16x25	720	18x31.5	880
		12.5x20	630	12.5x20	630	16x20	680	18x20	755	13x20	630	16x25	720	18x25	750		
										16x20	650	18x31.5	780	18x35.5	880		
										16x35.5	840						
										18x20	920						
56	560			12.5x20	660	13x25	780			10x50	1020	10x55	940	18x25	800		
										12.5x40	1060	12.5x40	1140				
										16x20	820						
										18x20	935						
68	680	12.5x25	695	12.5x20	665	12.5x25	700	16x31.5	802	16x25	700	16x30	900	16x40	1100		
		16x20	727	12.5x25	710	13x20	670	18x25	826	18x20	850	18x20	900	18x20	880		
				16x20	735	16x20	750	18x25	826	18x35.5	1000	18x31.5	925	18x35.5	1100		
						18x20	800										
82	820			16x20	765	16x20	900			16x20	850	18x25	780	12.5x60	1300	18x33	1150
						18x25	1060			16x30	900	18x35.5	950	16x35	1000	18x40	1300
										18x25	950			18x25	1000		
										18x40	1125			18x31.5	1100		
100	101	16x25	940	12.5x30	870	12.5x30	850	18x35.5	1200	12.5x55	1400	18x31.5	1350	16x35	1100		
		18x20	1240	16x20	800	16x20	900			16x30	1000			18x30	1050		
				18x20	1250	18x31.5	1200			18x25	1020			18x35.5	1250		
						12.5x35	1150			16x35.5	1220			16x45	1350		
				16x20	1000	16x20	1100			16x40	1250			18x35.5	1350		
				18x20	1350					18x31.5	1250			18x50	1530		
150	151	16x20	1200	16x25	1175	18x20	1380			16x40	1320	16x40	1320	16x45	1400		
		16x31.5	1300	18x25	1332	18x31.5	1420			18x31.5	1400	18x40	1350	18x40	1450		
		18x25	1380														
180	181	16x20	1250	16x30	1400	18x25	1500			16x45	1400			16x50	1500		
										18x40	1750			18x45	1550		
220	221	16x31.5	1390	18x25	1400	18x30	1600										
		18x25	1395	18x35.5	1650	20x30	1700										
270	271			16x40	1500	18x35.5	1750										
				18x25	1435												
330	331	18x25	1450	18x35.5	1700												
390	391			18x35.5	1750												
470	471	18x35.5	1700	18x40	1900												
680	681	18x40	1920														