

Hengxing ALUMINUM ELECTROLYTIC CAPACITORS

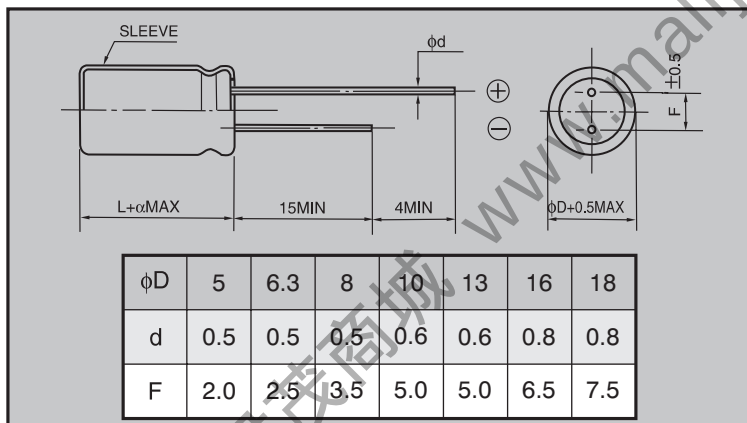
CD110 SERIES

105°C Standard Dounsized
105°C 2000 hours assured

◆ SPECIFICATIONS

Items	Characteristics	
Category Temperature Range	-40~+105°C	-25~+105°C
Rated Voltage Range	6.3~100V.DC	160~450V.DC
Capacitance Range	0.1~22.000μF	0.47~330μF
Capacitance Tolerance	±20% (at 20°C 120Hz)	
Dissipation Factor(MAX)	Rated Voltage(V)	6.3 10 16 25 35 50 63 80 100
	tanδ	0.26 0.22 0.18 0.16 0.14 0.12 0.10 0.10 0.10
	Rated Voltage(V)	160~250 350~450
	tanδ	0.15 0.20
For capacitance of more than 1000μF, add 0.02 for every increase of 1000μF		
Leakage Current(MAX)	I=0.01CV or 3μA which is greater	
	I=0.03CV+10μA	
Endurance	I:Leakage Current.(μA) C: Rated capacitance.(μF) V:Rated voltage.(V) The value after impress the rated voltage for 2 minutes.	
	The following requirements shall be satisfied when the capacitor are restored to 20°C after the rated voltage applied for 1000 hours at 105°C	
	Capacitance change	≤ ±20% of the initial value
	Dissipation factor(tanδ)	≤200% of the specified value
Endurance	Leakage current	≤ Specified value
	The following requirements shall be satisfied when the capacitor are restored to 20°C after exposing them for 500 hours at 105°C without voltage applied.	
	Capacitance change	≤ ±20% of the initial value
	Dissipation factor(tanδ)	≤200% of the specified value
	Leakage current	≤200% of the Specified value

◆ DIMENSIONS



◆ MULTIPLIER FOR RIPPLE CURRENT

Frequency coefficient

Vdc	Cap.(μF)	Frep.(Hz)	50(60)	120	300	1K	10K
6.3~100	0.1~68		0.75	1	1.35	1.57	2.00
	100~680		0.80	1	1.23	1.34	1.50
	1000~22000		0.85	1	1.10	1.13	1.13
160~450	0.47~220		0.80	1	1.25	1.40	1.40
	330		0.90	1	1.10	1.13	1.13

◆ Temperature Multiplier

Temp(°C)	40	60	70	85	95	105
Factor	1.9	1.75	1.61	1.4	1.25	1

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◆ STANDARD SIZE, RATED RIPPLE CURRENT

Size ϕ DxL(mm), Ripple Current (mA r.m.s./105°C, 120Hz)

WV(V.DC) Cap(μF)	6.3 (0J)		10 (1A)		16 (1C)		25 (1E)		35 (1V)		50 (1H)		63 (1J)		100 (2A)	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
0.1											5x11	1.3			5x11	1.5
0.22											5x11	2.9			5x11	3.4
0.33											5x11	4.3			5x11	5
0.47											5x11	9			5x11	11
1											5x11	13			5x11	16
2.2											5x11	20			5x11	24
3.3											5x11	24			5x11	30
4.7							5x11	25	5x11	28	5x11	29	5x11	34	5x11	36
10					5x11	40	5x11	35	5x11	39	5x11	43	5x11	47	6.3x11	60
22	5x11	45	5x11	51	5x11	55	5x11	50	5x11	60	5x11	65	5x11	65	6.3x11	85
33	5x11	55	5x11	59	5x11	65	5x11	65	5x11	70	6.3x11	80	6.3x11	90	8x12	110
47	5x11	65	5x11	68	5x11	70	5x11	75	5x11	85	6.3x11	110	8x12	120	8x12	150
68	5x11	69	5x11	72	5x11	80	6.3x11	95	6.3x11	105	8x12	130	10x13	160	10x20	195
100	5x11	85	5x11	95	5x11	100	6.3x11	130	6.3x11	140	8x12	180	8x12	190	10x20	260
150	5x11	100	5x11	105	6.3x11	145	8x12	160	8x12	195	10x13	230	10x20	265	13x25	330
220	5x11	130	5x11	140	6.3x11	170	8x12	210	8x12	240	10x13	290	10x17	320	13x21	470
330	6.3x11	180	6.3x11	200	8x12	250	8x12	260	10x13	320	10x20	390	13x20	450	13x25	600
470	6.3x11	220	6.3x11	240	8x12	290	8x12	340	10x13	450	10x20	520	13x20	560	16x25	660
680	8x12	295	6.3x11	352	8x12	415	8x16	500	10x20	605	13x20	738	16x25	713	16x36	1065
1000	8x12	360	8x12	430	8x16	510	10x17	610	13x20	740	13x25	900	16x25	870	18x40	1300
2200	10x16	610	10x20	750	10x20	880	13x20	1020	16x25	1080	16x30	1360	18x36	1500		
3300	10x20	810	10x20	960	13x21	1120	16x25	1140	16x30	1440	18x35	1565				
4700	13x20	1000	13x25	1180	13x25	1210	18x30	1410	18x36	1680						
6800	13x25	1250	16x25	1280	16x32	1500	18x36	1730								
10000	16x25	1330	16x36	1630	18x36	1810										
15000	16x36	1700	18x36	1890												
22000	18x40	2120														

↑ Ripple current(A rms) at 105°C,120Hz
 ↓ Case size ϕ DXL(mm)

WV(V.DC) Cap(μF)	160		200		250		350		400		450	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
0.47	5x11	9	5x11	10	5x11	11	5x11	11	6.3x11	11	6.3x11	12
1	5x11	14	5x11	15	6.3x11	16	6.3x11	16	6.3x11	16	8x12	17
2.2	6.3x11	20	6.3x11	22	6.3x11	24	8x12	23	8x12	25	10x13	31
3.3	6.3x11	25	6.3x11	27	8x12	33	8x12	31	10x13	32	10x16	42
4.7	6.3x11	30	8x12	36	8x12	40	8x12	37	8x12	42	10x13	50
10	8x12	49	8x12	60	10x13	70	10x20	65	10x13	76	10x17	75
22	10x16	90	10x16	110	10x20	132	13x20	120	13x20	125	13x21	130
33	10x20	120	10x20	140	13x20	150	13x25	140	13x20	166	16x25	170
47	13x20	160	13x20	170	13x20	200	16x25	190	16x21	210	16x36	225
68	13x25	210	13x20	210	16x25	235	16x32	225	16x25	260		
100	13x25	250	16x25	260	16x25	320	18x36	335	18x32	360		
150	16x32	365	16x36	360	16x36	460						
220	16x32	420	16x36	515	18x35	525						
330	18x36	590										

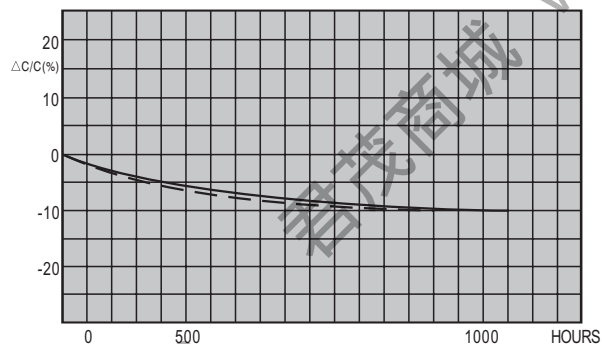
↑ Ripple current(mA rms) at 105°C,120Hz
 ↓ Case size ϕ DXL(mm)

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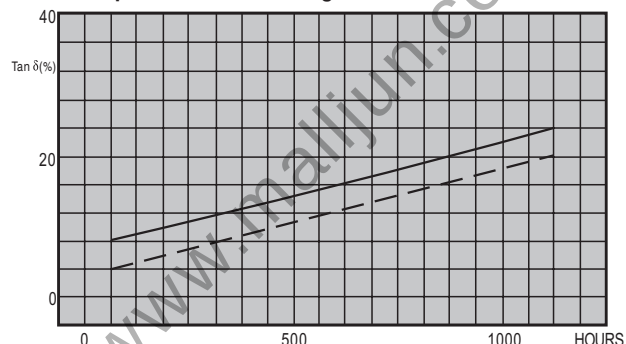
◆ CHARACTERISTIC DATA

—— 10 μ F 250WV
----- 2200 μ F 35WVF

Capacitance Change Ratio



Dissipation Factor Change



Leakage Current Change

