

# Aluminum Electrolytic Capacitors

Snap-In Standard and High Voltage 85°C

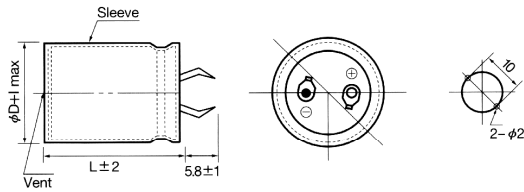
## SL, SLHV Series

- Used in audio, OA equipment, power supply as a filter, which needs a higher ripple current.
- With snap-in terminals which can be mounted easily and prevent vibration damage.

### SPECIFICATION

ITEM	SPECIFICATION																
Capacitance Tolerance (120Hz 20°C)	±20%(M)																
Rated Working Voltage	(SL) 10WV~100WV									(SLHV) 160WV~450WV							
Operation Temperature Range	-40 ~ +85 °C									-25 ~ +85 °C							
Surge Voltage(V) (20°C)	WV	10	16	25	35	50	63	80	100	160	180	200	250	315	350	400	450
	SV	13	20	32	44	63	79	100	125	200	225	250	300	365	400	450	500
Leakage Current (20°C)	I ≤ 0.02CV or 3mA Whichever is greater																
	After rated voltage applied for 5 minutes																
Where I : Leakage Current (μA) C : Capacitance (μF) V : Voltage (V)																	
Dissipation Factor (tan δ) (120 Hz 20°C)	Dissipation factor at 20°C, 120Hz shall not exceed the values showed in the table of standard rating.																
Low Temperature Characteristics	After 2000 hours application of W.V. at 85 °C, the capacitor shall meet the following limits																
	Capacitance Change									≤ ± 20 % of Initial Value							
	Dissipation Factor									≤ 200 % of Initial Specified Value							
	Leakage Current									≤ Initial Specified Value							
Shelf Life	After 500 hours to place at 85°C without rated voltage applied, the capacitor shall meet the limits as same as load life.																
Others	Satisfied JIS C-5141																

### DIMENSIONS (unit:mm)



### RIPPLE CURRENT COEFFICIENTS

Frequency Multipliers

Freq. (Hz)	50	60	120	400	1k	2.4k	5k	10k~
Coefficient	0.80	0.85	1.00	1.14	1.23	1.30	1.36	1.40

Temperature Multipliers

Temp. (°C)	40	45	50	55	60	65	70	75	80	85
Coefficient	2.32	2.21	2.10	1.98	1.85	1.72	1.57	1.40	1.22	1.00

at 120Hz

CAP Code	10 VDC					16 VDC							
	CAP (μF)	ESR 20°C (Ω)	R.C. 85°C (A)	D. F. 20°C (%)	DIMENSIONS(mm) ØDXL	ESR 20°C (Ω)	R.C. 85°C (A)	D. F. 20°C (%)	DIMENSIONS(mm) ØDXL				
822	8200					0.080	2.45	40	22x25				
103	10000					0.066	2.60	40	22x30				
123	12000	0.055	2.45	40	22x25	0.055	2.90	40	22x35	25x25			
153	15000	0.044	2.80	40	22x30	0.044	3.30	40	22x40	25x30	30x25		
183	18000	0.036	3.15	40	22x35	0.036	3.70	40	22x45	25x35	30x30		
223	22000	0.030	3.50	40	22x40	0.030	4.15	40	22x50	25x45	30x30	35x25	
273	27000	0.024	4.00	40	22x45	0.024	4.65	40		25x45	30x35	35x30	
333	33000	0.020	4.45	40	22x50	0.020	5.25	40			30x40	35x35	
393	39000	0.017	4.90	40		0.017	5.80	40			30x45	35x35	
473	47000	0.016	5.50	40		0.014	6.45	40				35x40	
563	56000	0.014	6.05	40		0.011							

# Aluminum Electrolytic Capacitors



## Snap-In Standard and High Voltage 85°C

at 120Hz

25 VDC								35 VDC							
CAP Code	CAP (μF)	ESR 20°C (Ω)	R.C. 85°C (A)	D. F. 20°C (%)	DIMENSIONS(mm) ØDXL				ESR 20°C (Ω)	R.C. 85°C (A)	D. F. 20°C (%)	DIMENSIONS(mm) ØDXL			
392	3900							0.119	2.10	35	22x25				
472	4700							0.098	2.30	35	22x30	25x25			
562	5600	0.094	2.20	35	22x25			0.082	2.60	35	22x35	25x35	30x30	35x25	
682	6800	0.078	2.45	35	22x30	25x25		0.068	2.90	35	22x40	25x30	30x30	35x25	
822	8200	0.064	2.75	35	22x35	25x30		0.056	3.20	35	22x45	25x35	30x30	35x25	
103	10000	0.053	3.10	35	22x40	25x30	30x25	0.046	3.60	35	22x50	25x40	30x30	35x25	
123	12000	0.044	3.40	35	22x45	25x35	30x30	0.038	4.00	35		25x45	30x35	35x30	
153	15000	0.035	3.90	35		25x40	30x35	0.030	4.60	35			30x40	35x35	
183	18000	0.029	4.30	35		25x45	30x40	0.025	5.10	35			30x45	35x40	
223	22000	0.024	4.85	35			30x45	0.021	5.70	35				35x45	
273	27000	0.019	5.45	35			30x50	0.017	6.45	35				35x50	
333	33000	0.016	6.15	35			35x45								
50 VDC								63 VDC							
CAP Code	CAP (μF)	ESR 20°C (Ω)	R.C. 85°C (A)	D. F. 20°C (%)	DIMENSIONS(mm) ØDXL				ESR 20°C (Ω)	R.C. 85°C (A)	D. F. 20°C (%)	DIMENSIONS(mm) ØDXL			
182	1800							0.184	1.80	25	22x25				
222	2200	0.180	1.80	30	22x25			0.150	2.00	25	22x30	25x25			
272	2700	0.147	1.95	30	22x30			0.122	2.30	25	22x35	25x30			
332	3300	0.120	2.20	30	22x35	25x25		0.100	2.55	25	22x40	25x30	30x25		
392	3900	0.102	2.40	30	22x35	25x30		0.085	2.80	25	22x45	25x35	30x30		
472	4700	0.084	2.70	30	22x40	25x35	35x25	0.070	3.15	25	22x50	25x40	30x30	35x25	
562	5600	0.071	3.00	30	22x45	25x35	30x30	0.059	3.50	25		25x45	30x35	35x30	
682	6800	0.058	3.35	30		25x40	30x35	0.048	3.90	25		25x50	30x40	35x30	
822	8200	0.048	3.70	30		25x50	30x40	0.040	4.35	25			30x45	35x35	
103	10000	0.039	4.20	30			30x45	0.033	4.90	25			30x50	35x40	
123	12000	0.033	4.65	30			30x50	0.027	5.45	25				35x50	
153	15000	0.026	5.30	30			35x45								
183	18000	0.022	5.90	30			35x50								
80 VDC								100 VDC							
CAP Code	CAP (μF)	ESR 20°C (Ω)	R.C. 85°C (A)	D. F. 20°C (%)	DIMENSIONS(mm) ØDXL				ESR 20°C (Ω)	R.C. 85°C (A)	D. F. 20°C (%)	DIMENSIONS(mm) ØDXL			
821	820							0.323	1.75	20	22x25				
102	1000							0.265	1.95	20	22x30	25x25			
122	1200	0.221	1.70	20	22x25			0.221	2.15	20	22x35	25x30			
152	1500	0.176	1.95	20	22x30	25x25		0.176	2.45	20	22x40	25x30	30x25		
182	1800	0.147	2.15	20	22x35	25x30		0.147	2.75	20	22x45	25x35	30x30		
222	2200	0.120	2.45	20	22x40	25x30	30x25	0.120	3.05	20	22x50	25x40	30x30	35x25	
272	2700	0.098	2.75	20	22x45	25x35	30x30	0.098	3.45	20		25x45	30x35	35x30	
332	3300	0.080	3.10	20	22x50	25x40	30x30	0.080	3.90	20		25x50	30x40	35x30	
392	3900	0.068	3.40	20		25x45	30x35	0.068	4.30	20			30x45	35x35	
472	4700	0.056	3.80	20		25x50	30x40	0.056	4.75	20				35x40	
562	5600	0.047	4.20	20			30x45	0.047	5.30	20				35x50	
682	6800	0.039	4.70	20			30x50								
822	8200	0.032	5.25	20			35x50								
160 VDC								180 VDC							
CAP Code	CAP (μF)	ESR 20°C (Ω)	R.C. 85°C (A)	D. F. 20°C (%)	DIMENSIONS(mm) ØDXL				ESR 20°C (Ω)	R.C. 85°C (A)	D. F. 20°C (%)	DIMENSIONS(mm) ØDXL			
271	270							0.737	1.20	15	22x25				
331	330	0.603	1.35	15	22x25			0.603	1.35	15	22x30				
391	390	0.510	1.50	15	22x30			0.510	1.50	15	22x30	25x25			
471	470	0.423	1.70	15	22x35	25x25		0.423	1.70	15	22x35	25x30			
561	560	0.355	1.90	15	22x35	25x30		0.355	1.90	15	22x40	25x30	30x25		
681	680	0.292	2.15	15	22x40	25x35	30x25	0.292	2.15	15	22x45	25x35	30x30		
821	820	0.242	2.40	15	22x50	25x35	30x30	0.242	2.40	15	22x50	25x40	30x30	35x25	
102	1000	0.199	2.75	15		25x40	30x35	0.199	2.75	15		25x45	30x35	35x30	
122	1200	0.165	3.05	15		25x50	30x40	0.165	3.05	15			30x40	35x35	
152	1500	0.132	3.30	15			30x45	0.132	3.50	15			30x50	35x40	
182	1800	0.110	3.95	15			30x50	0.110	3.95	15				35x45	
222	2200	0.090	4.50	15			35x45	0.090	4.45	15				35x50	



# Aluminum Electrolytic Capacitors

## Snap-In Standard and High Voltage 85°C

at 120Hz

200 VDC									250 VDC						
CAP Code	CAP (μF)	ESR 20°C (Ω)	R.C. 85°C (A)	D. F. 20°C (%)	DIMENSIONS(mm) ØDXL				ESR 20°C (Ω)	R.C. 85°C (A)	D. F. 20°C (%)	DIMENSIONS(mm) ØDXL			
181	180								1.105	1.00	15	22x25			
221	220	0.904	1.00	15	22x25	22x30			0.904	1.15	15	22x30	22x35		
271	270	0.737	1.15	15	22x30	25x25			0.737	1.30	15	22x30	25x25		
331	330	0.603	1.30	15	22x35	25x25	22x40		0.603	1.45	15	22x35	25x30	22x40	
391	390	0.510	1.45	15	22x35	25x30	30x25		0.510	1.60	15	22x40	25x35	30x25	
471	470	0.423	1.65	15	22x40	25x35	30x25	22x40	0.423	1.80	15	22x45	25x35	30x30	35x25
561	560	0.355	1.85	15	22x45	25x40	30x30	22x40	0.355	2.00	15		25x40	30x35	35x30
681	680	0.292	2.10	15	22x50	25x40	30x35	35x30	0.292	2.30	15		25x50	30x40	35x30
821	820	0.242	2.30	15		25x50	30x40	35x30	0.242	2.55	15			30x45	35x35
102	1000	0.199	2.60	15			30x45	35x35	0.199	2.90	15			30x50	35x40
122	1200	0.165	2.90	15			30x50	35x40	0.165	3.25	15				35x45
152	1500	0.132	3.20	15				35x50							
315 VDC									350 VDC						
CAP Code	CAP (μF)	ESR 20°C (Ω)	R.C. 85°C (A)	D. F. 20°C (%)	DIMENSIONS(mm) ØDXL				ESR 20°C (Ω)	R.C. 85°C (A)	D. F. 20°C (%)	DIMENSIONS(mm) ØDXL			
820	82								3.236	0.70	15	22x25			
101	100	2.653	0.75	15	22x25				2.653	0.80	15	22x30			
121	120	2.211	0.85	15	22x30				2.211	0.85	15	22x30	25x25		
151	150	1.769	1.00	15	22x30	25x25			1.769	1.00	15	22x35	25x25		
181	180	1.474	1.10	15	22x35	25x30			1.474	1.15	15	22x40	25x35	30x25	
221	220	1.206	1.25	15	22x40	25x30	30x25		1.206	1.30	15	22x45	25x35	30x30	35x25
271	270	0.982	1.40	15	22x45	25x35	30x30	35x25	0.982	1.45	15		25x45	30x35	35x25
331	330	0.804	1.60	15	22x50	25x40	30x35	35x25	0.804	1.65	15		25x50	30x40	35x30
391	390	0.680	1.75	15		25x45	30x35	35x30	0.680	1.85	15			30x45	35x35
471	470	0.564	2.00	15			30x40	35x35	0.564	2.10	15			30x50	35x40
561	560	0.473	2.20	15			30x45	35x40	0.473	2.30	15				35x45
681	680	0.390	2.50	15				35x45	0.390	2.60	15				35x50
821	820	0.323	2.80	15				35x50							
400 VDC									450 VDC						
CAP Code	CAP (μF)	ESR 20°C (Ω)	R.C. 85°C (A)	D. F. 20°C (%)	DIMENSIONS(mm) ØDXL				ESR 20°C (Ω)	R.C. 85°C (A)	D. F. 20°C (%)	DIMENSIONS(mm) ØDXL			
560	56								5.923	0.55	15	22x25			
680	68	4.878	0.60	15	22x25				4.878	0.60	15	22x30			
820	82	4.045	0.70	15	22x25				4.045	0.70	15	22x30	25x25		
101	100	3.317	0.80	15	22x30	25x25			3.317	0.80	15	22x35	25x30		
121	120	2.764	0.90	15	22x35	25x25	18x36		2.764	0.90	15	22x40	25x35	30x25	
151	150	2.211	1.00	15	22x40	25x30	30x25		2.211	1.00	15	22x50	25x40	30x30	
181	180	1.843	1.15	15	22x45	25x35	30x30		1.846	1.15	15		25x45	30x35	35x25
221	220	1.507	1.30	15	22x50	25x40	30x30	35x25	1.507	1.30	15		25x50	30x40	35x30
271	270	1.228	1.50	15		25x45	30x35	35x30	1.228	1.50	15			30x45	35x35
331	330	1.005	1.70	15		25x50	30x40	35x35	1.005	1.70	15			30x50	35x40
391	390	0.850	1.85	15			30x45	35x35	0.850	1.85	15				35x45
471	470	0.705	2.10	15				35x40	0.705	2.10	15				35x50
561	560	0.592	2.30	15				35x50							