

# Aluminum Electrolytic Capacitors

## EAA1- Axial Aluminum Electrolytic Capacitors

**ELECSOUND**®

Elecsound is a leading manufacturer of aluminum electrolytic capacitors. Mainly include radial type electrolytic capacitors and chip aluminum electrolytic capacitors.

### Features:

- Load life 1000 hours at 105 °C
- High ripple current
- Voltage range of 6.3 ~ 450V
- Wide operating temperature range, from -40°C ~ +105°C
- Rohs Compliant



### Specifications:

Item	Characteristic																
Operation Temp	-40°C ~ +105°C																
Capacitance Tolerance	±10%(K), ±20%(M) (at 20°C, 120Hz)																
Rated Voltage	6.3 ~ 100VDC										160 ~ 450VDC						
(20°C)	I ≧ 0.02CV or 3 (u A) whichever is greater (after 2 minutes applying the rated DC working voltage)										I ≧ 0.03CV+15 (u A) for CV ≧ 1000, I ≧ 0.02CV+25 (u A) for CV > 1000						
Leakage Current	Where: I=Leakage Current (u A), C=rated Capacitance (u F), V= working Voltage (V)																
(at 20°C, 120Hz)	W.V	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450		
Dissipation Factor (tan δ)	tan δ	23	20	0.17	0.15	0.12	0.10	0.09	0.08	0.15	0.15	0.20	0.20	0.24	0.24		
	Add 0.02 per 1000μ F for more than 1000μ F																
(20°C)	W.V	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450		
Surge Voltage	S.V	8	13	20	32	44	63	79	125	200	250	300	400	450	500		
	Impedance ratio at 120 HZ																
Low Temperature Stability	Rated Voltage (V)	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450		
	Z(-25°C)	φ D<16	6	4	3	3	2	2	2	2	3	6	8	12	14	16	
	/+20°C	φ D≥16	8	6	4	4	3	3	3	3	4	8	10	-	-	-	
	Z(-40°C)	φ D<16	10	8	6	6	4	3	3	3	4	8	10	-	-	-	
/+20°C	φ D≥16	18	16	12	10	8	8	6	6								
Load Life Test	After 1,000 hours application of rated voltage at 105°C, capacitors meet the characteristics requirements listed as below .																
	Capacitance Change		Within ±20% of initial value														
	Dissipation Factor		Less than 200% of specified value														
	Leakage Current		Within specified value														
Shelf Life Test	After leaving capacitors under no load at 105°C for 1,000 hours and applying Voltage they meet the specified value for load life characteristics listed above																
Frequency Coefficient of Allowable Ripple Current	Cap. (μ F)	Freq.(Hz)	60			120			500			1K			10K up		
	Under 100		0.70			1.00			1.30			1.40			1.50		
	100 to 1000		0.75			1.00			1.20			1.30			1.35		
1000 up above		0.80			1.00			1.10			1.12			1.15			
Allowable Ripple Current Vs. Ambient Temperature	Temperature(°C)		Under 50			70.00			85.00			105					
	Multiplier		1.95			1.78			1.40			1.00					

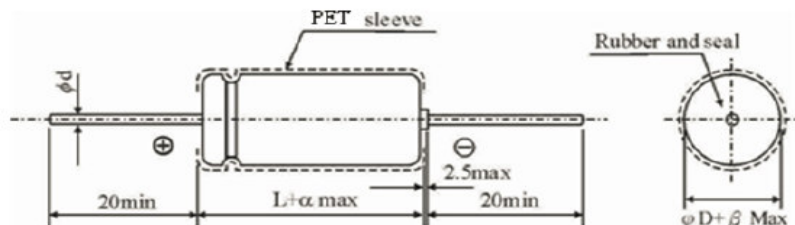
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Dimensions: (Unit:MM)

φ D	5	6.3	8	10	13	16	18	22	25
φ d	0.6	0.6	0.6	0.6	0.6	0.8	0.8	0.8	0.8
a	1.5	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0
β	0.5	0.5	0.5	1.0	1.0	1.0	1.0	1.0	1.0



Standard Ratings: Ripple Current: m A/rms at 105°C, 120Hz

WV	Dimension Diameter (φ D)×Length(L) mm															
	6.3		10V		16V		25V		35V		50V		63V		100V	
μ F	SIZE	R.C	SIZE	R.C	SIZE	R.C	SIZE	R.C	SIZE	R.C	SIZE	R.C	SIZE	R.C	SIZE	R.C
0.10											5*12	2	5*12	3	5*12	3
0.22											5*12	3.5	5*12	4.5	5*12	5
0.33											5*12	5	5*12	7.5	5*12	8
0.47											5*12	6	5*12	9	5*12	9
1.0											5*12	10	5*12	15	5*12	15
2.2											5*12	20	5*12	30	5*12	30
3.3											5*12	30	5*12	32	5*12	32
4.7											5*12	34	5*12	36	6.3*13	37
10					5*12	35	5*12	39	5*12	44	5*12	50	6.3*13	55	6.3*13	64
22					5*12	55	5*12	63	6.3*13	65	6.3*13	75	6.3*13	90	8*16	106
33			5*12	60	5*12	73	5*12	75	6.3*13	96	6.3*13	105	8*13	123	10*17	150
47			5*12	77	6.3*13	85	6.3*13	90	6.3*13	114	8*13	140	8*16	162	10*21	180
100	6.3*13	102	6.3*13	110	6.3*13	145	8*13	166	8*16	180	10*17	225	10*17	248	13*22	287
220	6.3*13	167	8*13	180	8*13	231	8*16	246	10*17	305	10*21	349	13*22	420	16*28	458
330	8*16	236	8*16	253	8*16	323	10*17	345	10*21	391	13*22	450	13*22	495	16*33	582
470	8*16	281	8*16	302	10*17	359	10*21	432	13*22	490	13*22	561	13*27	632	16*36	713
1000	10*17	453	10*17	486	10*21	569	13*22	662	13*27	721	16*33	875	16*36	984	18*42	1096
2200	13*22	740	13*22	793	13*24	926	16*28	1024	16*33	1177	18*36	1408	22*43	1540	25*52	2310
3300	13*27	906	13*27	1015	16*28	1173	16*33	1300	18*36	1449	22*43	1724	25*52	1950		
4700	13*27	1168	16*28	1252	16*33	1443	18*36	1638	22*43	1878	25*43	1950	25*52	2290		

WV	160V		200V		250V		350V		400V		450V	
	SIZE	R.C	SIZE	R.C	SIZE	R.C	SIZE	R.C	SIZE	R.C	SIZE	R.C
1.0	6.3*13	7	6.3*13	9	6.3*13	12	8*16	13	8*16	15	8*16	15
2.2	6.3*13	15	8*13	16	8*16	17	8*21	19	10*17	23	10*21	23
3.3	8*16	21	8*16	26	8*21	31	8*21	33	10*17	36	10*21	36
4.7	8*16	31	10*17	33	10*17	38	10*21	44	10*26	46	10*26	46
10	10*17	60	10*21	66	10*21	72	13*22	72	13*22	79	13*27	82
22	10*21	121	13*22	121	13*27	126	13*27	132	16*33	143	16*36	154
33	13*22	154	13*27	167	16*28	178	16*33	186	16*42	201	16*42	201
47	13*27	198	16*33	214	16*33	241	16*42	253	18*42	253	18*42	304
100	16*33	345	16*36	368	16*42	391	22*43	402	25*43	439	25*52	448
220	18*42	586	22*43	609	22*43	632						
330	22*43	632										