BREL INTERNATIONAL COMPONENTS
1621 WEST UNIVERSITY PARKWAY, SARASOTA, FL 34243
SALES: (800) 237-4564 PHONE: (941) 355-9791 FAX: (941) 355-1530

ALUMINUM ELECTROLYTIC CAPACITORS

* It should be considered for applications where standard types of aluminum electrolytic capacitors cannot be utilized because of their high L.C.
* Another application is the replacement of tantalum capacitors with aluminum electrolytic capacitors.

Operating temperature range: -40°C ~ +85°C.

Capacitance and tolerance: Capacitance measurements shall be made by referred to a frequency of 120Hz $^{+10}_{-5}$Hz. The capacitance shall be within the specified tolerance of ±20%. (±10% units are available on request).

Leakage current: Measurement shall be made at rated DC voltage with an application of a steady source of power, such as a regulated power supply. A current-limiting resistor of 1,000 ohms shall be connected in series with each capacitor under test. Rated DC working voltage shall be applied to the capacitor for a minimum of 30 minutes, 24 to 48 hours prior to making leakage current measurements.

The maximum leakage current at 5 minutes shall not exceed the value determined from the following equation or 1.0μA, whichever is greater:

$I = 0.002CV$

where: I = Leakage Current (μA)
C = Nominal Capacitance (μF)
V = Rated DC Voltage (V. DC)

Dissipation factor: Capacitors shall be measured at a frequency of 120Hz at 20°C with a maximum of 1 volt RMS applied during measurement. The dissipation factor shall not exceed the values in Table 1.

Table 1.

Rated Voltage (V. DC)	Dissipation Factor (%) Value in Parenthesis for 5mm Dia. Case size
6.3	20
10	17
16	15
25	12
35	10
50 ~ 100	8

Low-temperature characteristics: The ratio of the impedance of -25°C to that of +20°C shall be less than the values in Table 2.

Table 2.

Rated Voltage (V. DC)	Z @ -25°C / Z @ +20°C	Z @ -40°C / Z @ +20°C
6.3	4	8
10	3	6
16	2	4
25	2	4
35	2	4
50 ~ 100	2	4

Life test: Rated voltage shall be applied to the capacitors in series with a one thousand ohm resistor. All tests shall be conducted in a dry oven with circulating air. Capacitors shall be separated by a distance not less than 2.5CM and air circulation shall be provided to prevent temperature within 15CM of any capacitors from departing more than +0°C-5°C from the norminal ambient temperature of the chamber. Capacitors shall not be exposed to direct radiation from heating elements.

Capacitors shall be subjected to for a period of 1000 hours at 85°C.

After the completion of the life test capacitors shall be returned to standard test conditions.

Table 3.

Capacitance	Within ±15% of initial measurements
Dissipation factor	150% less of value in Table 1
Leakage current	Same as specified under Leakage Current
Appearance	Free from leakage of electrolyte and/or other noticeable deformation

Shelf life test: Capacitors shall be subjected to +85°C± 2°C for 1000±12 hours during which time no voltage shall be applied.

Following this period the capacitors shall be cool to room temperature and then D.C. rated voltage shall be applied to the capacitors for 30 minutes after which the capacitors shall be discharged.

After completion of these procedures, the capacitors shall meet the requirements as listed in Table 3.

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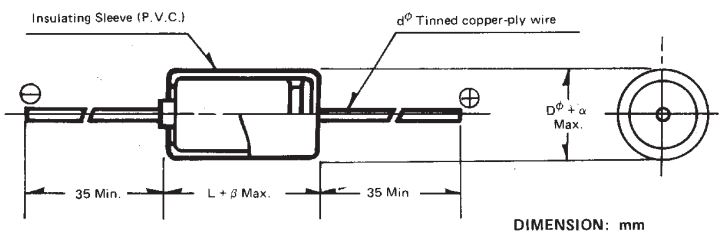
Low Leakage Axial – Type LLA

• CONFIGURATION

(mm)



DIMENSION: mm

Outside Diameter	DΦ	6	8	10
Tolerance	α	0.5	0.5	0.5
Length Tolerance	β	1	1	1
Lead Wire	dΦ	0.6	0.6	0.6

RIPPLE CURRENT IN mA-RMS (at 120Hz 85°C)—peak voltage not to exceed rated DC voltage—

Rated Voltage (V) / Surge Voltage (V) / CAP. (μF)	6.3	10	16	25	35	50	63	80	100
	8	13	20	32	44	63	79	100	125
0.47	24	24	24	24	24	24	24	26	26
1.0	36	36	36	36	36	36	36	38	38
2.2	50	50	50	50	50	50	50	55	60
3.3	65	65	65	65	65	65	65	70	75
4.7	68	68	68	68	70	80	80	90	90
10	75	75	75	90	105	125	125	135	135
22	105	105	120	140	165	185	190	200	
33	135	135	150	175	205	230	230		
47	165	165	185	215	245	275			
100	245	245	275	315					

DIMENSIONS: Diameter (DΦ) x Length (L): mm

Rated Voltage (V) / Surge Voltage (V) / CAP. (μF)	6.3	10	16	25	35	50	63	80	100
	8	13	20	32	44	63	79	100	125
0.47	6x12	6x12	6x12	6x12	6x12	6x12	6x12	6x12	6x12
1.0	6x12	6x12	6x12	6x12	6x12	6x12	6x12	6x12	6x12
2.2	6x12	6x12	6x12	6x12	6x12	6x12	6x12	6x12	6x16
3.3	6x12	6x12	6x12	6x12	6x12	6x12	6x12	6x12	8x16
4.7	6x12	6x12	6x12	6x12	6x12	6x12	6x12	6x16	8x16
10	6x12	6x12	6x12	6x12	6x12	8x16	8x16	8x16	8x20
22	6x12	6x12	6x12	6x16	8x16	8x16	8x20	10x21	
33	6x12	6x12	6x16	8x16	8x16	8x20	10x21		
47	6x12	6x12	8x16	8x16	8x20	10x21			
100	8x16	8x16	8x16	8x20					