



MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS

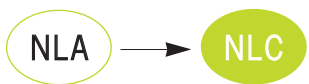
NLC Series

• 105°C 10,000Hrs assured.

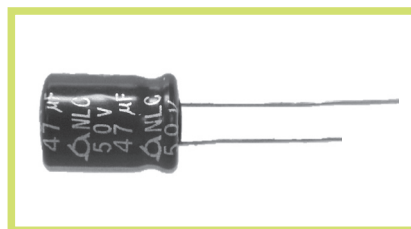
- Low impedance.
- Long Life.
- For SMPS, IP-Board, Adaptor.
- RoHS compliant.
- Halogen-free capacitors are also available.

Solvent-proof

WV ≤ 50V_{DC}



ø 8 ↓
Long Life



SPECIFICATIONS

Item	Characteristics																		
Rated Voltage Range	6.3 ~ 100 V _{DC}																		
Operating Temperature Range	-40 ~ +105°C																		
Capacitance Tolerance	±20%(M) (at 20°C, 120Hz)																		
Leakage Current	I=0.01CV(μA) or 3μA, whichever is greater. Where, I: Max.Leakage current(μA) C: Nominal capacitance (μF) V: Rated voltage (V _{DC}) (at 20°C, 2 minutes)																		
Dissipation Factor (Tanδ)	<table border="1"> <tr> <td>Rated Voltage(V_{DC})</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> </tr> <tr> <td>Tanδ(Max.)</td> <td>0.22</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.17</td> <td>0.15</td> </tr> </table> (at 20°C, 120Hz)	Rated Voltage(V _{DC})	6.3	10	16	25	35	50	63	100	Tanδ(Max.)	0.22	0.19	0.16	0.14	0.12	0.10	0.17	0.15
Rated Voltage(V _{DC})	6.3	10	16	25	35	50	63	100											
Tanδ(Max.)	0.22	0.19	0.16	0.14	0.12	0.10	0.17	0.15											
Temperature Characteristics (Max. Impedance ratio)	<table border="1"> <tr> <td>Rated voltage(V_{DC})</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25~35</td> <td>50~100</td> </tr> <tr> <td>Z(-25°C)/Z(+20°C)</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z(-40°C)/Z(+20°C)</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>4</td> </tr> </table> (at 120Hz)	Rated voltage(V _{DC})	6.3	10	16	25~35	50~100	Z(-25°C)/Z(+20°C)	4	3	2	2	2	Z(-40°C)/Z(+20°C)	8	6	4	3	4
Rated voltage(V _{DC})	6.3	10	16	25~35	50~100														
Z(-25°C)/Z(+20°C)	4	3	2	2	2														
Z(-40°C)/Z(+20°C)	8	6	4	3	4														
Load Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for 10,000 hours at 105°C. Capacitance change ≤ ±25% of the initial value Tanδ ≤ 200% of the initial specified value Leakage current ≤ The initial specified value																		
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 105°C without voltage applied. The rated voltage shall be applied to the capacitors for a minimum of 30 minutes, at least 24 hours and not more than 48 hours before the measurements. Capacitance change ≤ ±25% of the initial value Tanδ ≤ 200% of the initial specified value(where, 300% for ≥ WV63VDC) Leakage current ≤ The initial specified value																		
Others	Satisfied characteristics KS C IEC 60384-4																		

DIMENSIONS OF NLC Series

Unit(mm)

Marking : DARK BROWN SLEEVE, SILVER INK

øD	5	6.3	8
ød	0.5	0.5	0.6
F	2.0	2.5	3.5
øD'	øD + 0.5 max.		
L'	L + 2.0 max.		



RATINGS OF NLC Series

Vdc ∅D×L(mm)	6.3			10			16		
	μF	IMP.	Ripple	μF	IMP.	Ripple	μF	IMP.	Ripple
5×11	150	0.70	175	100	0.70	175	47	0.70	175
6.3×11	330	0.50	252	220	0.50	250	100	0.50	252
8×11.5	680	0.24	400	470	0.24	400	330	0.24	400

Vdc ∅D×L(mm)	25			35			50		
	μF	IMP.	Ripple	μF	IMP.	Ripple	μF	IMP.	Ripple
5×11							1	4.0	32
5×11							2.2	3.0	43
5×11							3.3	2.5	84
5×11							4.7	2.5	100
5×11	47	0.70	175	33	0.70	175	10	2.0	110
6.3×11	100	0.50	252	47	0.60	252	22	1.6	228
6.3×11				56	0.50	252	33	1.6	228
8×11.5	220	0.24	400	150	0.24	400	47	0.80	330
8×15				220	0.18	520	100	0.50	400

↑ Impedance (Ω max./20°C, 100kHz)

Vdc ∅D×L(mm)	63		100	
	μF	Ripple	μF	Ripple
8×11.5	47	270	33	240

↑ Rated Ripple Current (mA rms/105°C, 100kHz)
 ↑ Nominal Capacitance(μF)

RATED RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

Cap.(μF) Freq.(Hz)	120	1k	10k	50k	100k
1~150	0.40	0.75	0.90	0.93	1.00
220~470	0.50	0.85	0.94	0.96	1.00
680	0.60	0.87	0.95	0.97	1.00

NLC Series