NLA Series

• 105℃ 4,000~10,000Hrs assured.

Solvent-proof

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

LXA → NLA

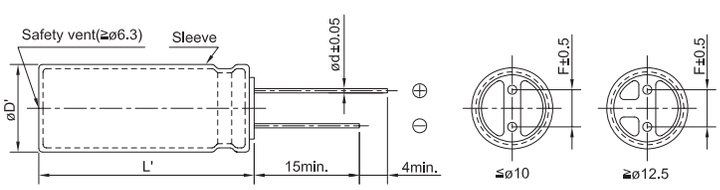
Low Imp.
Long Life

SPECIFICATIONS

Item	Characteristics
Rated Voltage Range	6.3 ~ 50 V_{DC}
Operating Temperature Range	-55 ~ +105℃
Capacitance Tolerance	±20%(M) (at 20℃, 120Hz)
Leakage Current	I=0.01CV or 3μA, whichever is greater. Where, I: Max.Leakage current(μA) C: Nominal capacitance (μF) V: Rated voltage (V_{DC}) (at 20℃, 2 minutes)
Dissipation Factor(Tanδ)	Rated Voltage(V_{DC}): 6.3 / 10 / 16 / 25 / 35 / 50 Tanδ(Max.): 0.22 / 0.19 / 0.16 / 0.14 / 0.12 / 0.10 When the capacitance exceeds 1,000μF, 0.02 shall be added every 1,000μF increase. (at 20℃, 120Hz)
Temperature Characteristics (Max. Impedance ratio)	Rated voltage(V_{DC}): 6.3 / 10 / 16 / 25 / 35 / 50 Z(-25℃)/Z(+20℃): 4 / 3 / 2 / 2 / 2 / 2 Z(-40℃)/Z(+20℃): 8 / 6 / 4 / 3 / 3 / 4 (at 120Hz)
Load Life	The following specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) at 105℃ for the following test time. Capacitance change ≦ ±25% of the initial value Tanδ ≦ 200% of the initial specified value Leakage current ≦ The initial specified value ØD: 6.3~10V: 5~6.3: 4,000 hours; 8~10: 6,000 hours; 12.5~: 8,000 hours / 16~50V: 5,000 hours; 7,000 hours; 10,000 hours
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 1,000 hours at 105℃ 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 Leakage current ≦ The initial specified value
Others	Satisfied characteristics KS C IEC 60384-4

DIMENSIONS OF NLA Series

Unit(mm)



Marking : DARK BROWN SLEEVE, SILVER INK

ØD	5	6.3	8	10	12.5	16	18
Ød	0.5	0.5	0.6	0.6	0.6	0.8	0.8
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5
ØD′	ØD+0.5 max.						
L′	L+1.5 max.			L+2.0 max			

RATINGS OF NLA Series

ØD×L(mm) \ WVDC	6.3			10			16		
	μF	IMP.	Ripple	μF	IMP.	Ripple	μF	IMP.	Ripple
5×11	150	0.50	175	100	0.50	175	47	0.50	175
6.3×11	330	0.25	290	220	0.25	290	100	0.25	290
8×11.5	680	0.12	555	470	0.12	555	330	0.12	555
8×15	1,000	0.090	730	680	0.090	730	470	0.090	730
8×20	1,200	0.080	810	1,000	0.080	810	560	0.080	810
10×12.5	820	0.090	760	680	0.090	760	470	0.090	760
10×16	1,200	0.068	1,050	1,000	0.068	1,050	680	0.068	1,050
10×20	1,500	0.052	1,220	1,200	0.052	1,220	1,000	0.052	1,220
10×25	2,200	0.045	1,440	1,500	0.045	1,440	1,200	0.045	1,440
10×30	2,700	0.037	1,690	1,800	0.037	1,690	1,500	0.037	1,690
12.5×16	1,800	0.053	1,270	1,500	0.053	1,270	1,000	0.053	1,270
12.5×20	3,300	0.038	1,660	2,200	0.038	1,660	1,500	0.038	1,660
12.5×25	3,900	0.030	2,310	3,300	0.030	2,310	2,200	0,030	2,310
12.5×30	4,700	0.025	2,510	3,900	0.025	2,510	2,700	0.025	2,510
12.5×35	5,600	0.022	2,870	4,700	0.022	2,870	3,300	0.022	2,870
16×15	2,700	0.048	1,690	2,200	0.048	1,690	1,500	0.048	1,690
16×20	5,600	0.031	2,210	3,900	0.031	2,210	2,700	0.031	2,210
16×25	6,800	0.024	2,560	5,600	0.024	2,560	3.900	0.024	2,560
16×31.5	8,200	0.021	3,010	6,800	0.021	3,010	4,700	0.021	3,010
16×35	10,000	0.019	3,250	8,200	0.019	3,250	5,600	0.019	3,250
16×40	12,000	0.016	3,560	10,000	0.016	3,560	6,800	0.016	3,560
18×20	6,800	0.031	2,490	5,600	0.031	2,490	3,900	0.031	2,490
18×25	10,000	0.023	2,740	6,800	0.023	2,740	4,700	0.023	2,740
18×31.5	12,000	0.021	3,330	8,200	0.021	3,330	5,600	0.021	3,330
18×35.5	15,000	0.019	3,680	10,000	0.019	3,680	8,200	0.019	3,680
18×40	18,000	0.018	3,800	12,000	0.018	3,800	10,000	0.012	4,280

ØD×L(mm) \ WVDC	25			35			50		
	μF	IMP.	Ripple	μF	IMP.	Ripple	μF	IMP.	Ripple
5×11	47	0.50	175	33	0.50	175	10	2.0	100
6.3×11	100	0.25	290	56	0.25	290	22	1.6	150
8×11.5	220	0.12	555	150	0.12	555	47	0.80	180
8×15	330	0.090	730	220	0.090	730	100	0.50	230
8×20	390	0.080	810	270	0.080	810	120	0.30	360
10×12.5	330	0.090	760	220	0.090	760	100	0.28	380
10×16	470	0.068	1,050	330	0.068	1,050	150	0.19	525
10×20	680	0.052	1,220	470	0.052	1,220	220	0.14	610
10×25	820	0.045	1,440	560	0.045	1,440	270	0.11	720
10×30	1,000	0.037	1,690	680	0.037	1,690	330	0.091	845
12.5×16	680	0.053	1,270	470	0.053	1,270	220	0.15	630
12.5×20	1,000	0.038	1,660	680	0.038	1,660	330	0.098	830
12.5×25	1,500	0.030	2,310	1,000	0.030	2,310	470	0.074	975
12.5×30	1,800	0.025	2,510	1,200	0.025	2,510	680	0.062	1,150
12.5×35	2,200	0.022	2,870	1,500	0.022	2,870	820	0.052	1,250
16×15	1,000	0.048	1,690	680	0.048	1,690	390	0.11	845
16×20	1,800	0.031	2,210	1,200	0.031	2,210	680	0.070	1,100
16×25	2,700	0.024	2,560	1,800	0.024	2,560	820	0.052	1,280
16×31.5	3,300	0.021	3,010	2,200	0.021	3,010	1,000	0.045	1,500
16×35	3,900	0.019	3,250	2,700	0.019	3,250	1,200	0.039	1,680
16×40	4,700	0.016	3,560	3,300	0.016	3,560	1,500	0.033	1,850
18×20	2,200	0.031	2,490	1,800	0.031	2,490	680	0.074	1,250
18×25	3,300	0.023	2,740	2,200	0.023	2,740	1,000	0.054	1,370
18×31.5	3,900	0.021	3,330	2,700	0.021	3,330	1,200	0.043	1,810
18×35.5	4,700	0.019	3,680	3,300	0.019	3,680	1,500	0.035	1,850
18×40	5,600	0.012	4,280	3,900	0.012	4,280	1,800	0.029	1,900

RATED RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

Cap.(μF) \ Freq.(Hz)	120	1k	10k	50k	100k
10 ~ 150	0.40	0.75	0.90	0.93	1.00
220 ~ 560	0.50	0.85	0.94	0.96	1.00
680 ~ 1,800	0.60	0.87	0.95	0.97	1.00
2,200 ~ 3,900	0.75	0.90	0.95	0.97	1.00
4,700 ~18,000	0.85	0.95	0.98	0.99	1.00

Rated Ripple Current (mArms/105℃, 100kHz)

Impedance (Ω max./20℃, 100kHz)

Nominal Capacitance(μF)