



MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS

LXV(NXL) Series

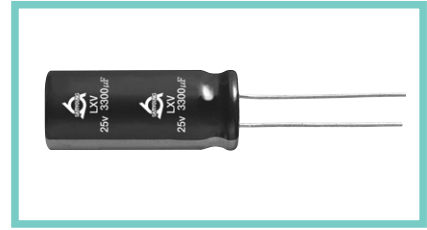
• 105°C 2,000~5,000Hrs assured.

Solvent-proof

- Low impedance.
- For SMPS, IP-Board, Adaptor
- Ecological capacitors are also available
- RoHS compliant.



Low Imp.
Long life



SPECIFICATIONS

Item	Characteristics														
Rated Voltage Range	6.3 ~ 50 V _{DC}														
Operating Temperature Range	-55 ~ +105°C														
Capacitance Tolerance	±20%(M) (at 20°C, 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°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> </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> </tr> </table> <p>When the capacitance exceeds 1,000μF, 0.02 shall be added every 1,000μF increase. (at 20°C, 120Hz)</p>	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
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									
Temperature Characteristics (Max. Impedance ratio)	<table border="1"> <tr> <td>Rated voltage(V_{DC})</td> <td>6.3</td> <td>10~50</td> </tr> <tr> <td>Capacitance change(Max.) : ΔC(-55°C)/C(20°C)</td> <td colspan="2">30%</td> </tr> <tr> <td>Impedance ratio(Max.) : Z(-55°C)/Z(20°C)</td> <td>4</td> <td>3</td> </tr> </table> <p>(at 120Hz)</p>	Rated voltage(V _{DC})	6.3	10~50	Capacitance change(Max.) : ΔC(-55°C)/C(20°C)	30%		Impedance ratio(Max.) : Z(-55°C)/Z(20°C)	4	3					
Rated voltage(V _{DC})	6.3	10~50													
Capacitance change(Max.) : ΔC(-55°C)/C(20°C)	30%														
Impedance ratio(Max.) : Z(-55°C)/Z(20°C)	4	3													
Load Life	<p>The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied at 105°C for the following test time.</p> <table border="1"> <tr> <td></td> <td>∅ D</td> <td>Time</td> </tr> <tr> <td>Capacitance change</td> <td>∅ 5, 6.3</td> <td>2,000 hours</td> </tr> <tr> <td>Tanδ</td> <td>∅ 8, 10</td> <td>3,000 hours</td> </tr> <tr> <td>Leakage current</td> <td>∅ 12.5~</td> <td>5,000 hours</td> </tr> </table> <p>Capacitance change ≤ ±20% of the initial value Tanδ ≤ 200% of the initial specified value Leakage current ≤ The initial specified value</p>		∅ D	Time	Capacitance change	∅ 5, 6.3	2,000 hours	Tanδ	∅ 8, 10	3,000 hours	Leakage current	∅ 12.5~	5,000 hours		
	∅ D	Time													
Capacitance change	∅ 5, 6.3	2,000 hours													
Tanδ	∅ 8, 10	3,000 hours													
Leakage current	∅ 12.5~	5,000 hours													
Shelf Life	<p>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 measurement.</p> <p>Capacitance change ≤ ±20% of the initial value Tanδ ≤ 200% of the initial specified value Leakage current ≤ The initial specified value</p>														
Others	Satisfied characteristics W of KS C 6421.														

DIMENSIONS OF LXV Series

Unit (mm)

Marking : DARK BROWN SLEEVE, SILVER INK

∅ D	5	6.3	8	10	12.5	16	18
∅ d	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

∅ D ≤ 8, ∅ D' ≤ ∅ D + 0.5 L' ≤ L + 1.5
∅ D > 8, ∅ D' ≤ ∅ D + 0.5 L' ≤ L + 2.0



RATINGS OF LXV Series

Items μF	6.3(0J)			Items μF	10(1A)			Items μF	16(1C)		
	Case size	Impedance (Ω max.)	Rated ripple current (mA rms)		Case size	Impedance (Ω max.)	Rated ripple current (mA rms)		Case size	Impedance (Ω max.)	Rated ripple current (mA rms)
	∅ D × L (mm)	(20°C/100kHz)	(105°C/100kHz)		∅ D × L (mm)	(20°C/100kHz)	(105°C/100kHz)		∅ D × L (mm)	(20°C/100kHz)	(105°C/100kHz)
120	5 × 11	0.72	165	82	5 × 11	0.72	165	56	5 × 11	0.72	165
220	6.3 × 11	0.38	255	180	6.3 × 11	0.38	255	120	6.3 × 11	0.38	255
330	6.3 × 15	0.27	330	270	6.3 × 15	0.27	330	180	6.3 × 15	0.27	330
330	8 × 11.5	0.19	485	270	8 × 11.5	0.19	485	180	8 × 11.5	0.19	485
470	10 × 12.5	0.12	625	390	10 × 12.5	0.12	625	270	10 × 12.5	0.12	625
560	8 × 15	0.16	495	470	8 × 15	0.16	495	330	8 × 15	0.16	495
680	10 × 16	0.084	825	680	8 × 20	0.11	640	470	8 × 20	0.11	640
820	8 × 20	0.110	640	680	10 × 16	0.084	825	470	10 × 16	0.084	825
1,200	10 × 20	0.062	1,040	1,000	10 × 20	0.062	1,040	680	10 × 20	0.062	1,040
1,500	10 × 25	0.052	1,260	1,200	10 × 25	0.052	1,260	820	10 × 25	0.052	1,260
2,200	10 × 30	0.044	1,440	1,500	10 × 30	0.044	1,440	1,200	10 × 30	0.044	1,440
2,200	12.5 × 20	0.046	1,340	1,800	12.5 × 20	0.046	1,340	1,200	12.5 × 20	0.046	1,340
2,700	12.5 × 25	0.034	1,690	2,200	12.5 × 25	0.034	1,690	1,500	12.5 × 25	0.034	1,690
3,900	12.5 × 30	0.030	1,950	2,700	12.5 × 30	0.030	1,950	2,200	12.5 × 30	0.030	1,950
3,900	16 × 20	0.039	1,630	3,300	12.5 × 35	0.027	2,200	2,200	16 × 20	0.039	1,630
4,700	12.5 × 35	0.027	2,200	3,300	16 × 20	0.039	1,630	2,700	12.5 × 35	0.027	2,200
5,600	12.5 × 42.5	0.024	2,390	3,900	12.5 × 42.5	0.024	2,390	2,700	16 × 25	0.029	2,070
5,600	16 × 25	0.029	2,070	3,900	16 × 25	0.029	2,070	3,300	12.5 × 42.5	0.024	2,390
5,600	18 × 20	0.038	1,750	3,900	18 × 20	0.038	1,750	3,300	18 × 20	0.038	1,750
6,800	16 × 31.5	0.026	2,350	5,600	16 × 31.5	0.026	2,350	3,900	16 × 31.5	0.026	2,350
6,800	18 × 25	0.029	2,130	5,600	18 × 25	0.029	2,200	3,900	18 × 25	0.029	2,130
8,200	16 × 35.5	0.023	2,550	6,800	16 × 35.5	0.023	2,550	4,700	16 × 35.5	0.023	2,550
10,000	18 × 31.5	0.026	2,410	6,800	18 × 31.5	0.026	2,410	5,600	18 × 31.5	0.026	2,410
12,000	18 × 35.5	0.023	2,660	8,200	18 × 35.5	0.023	2,660	6,800	18 × 35.5	0.023	2,660
15,000	18 × 40	0.019	3,010	10,000	18 × 40	0.019	3,010	8,200	18 × 40	0.019	3,010

Items μF	25(1E)			Items μF	35(1V)			Items μF	50(1H)		
	Case size	Impedance (Ω max.)	Rated ripple current (mA rms)		Case size	Impedance (Ω max.)	Rated ripple current (mA rms)		Case size	Impedance (Ω max.)	Rated ripple current (mA rms)
	∅ D × L (mm)	(20°C/100kHz)	(105°C/100kHz)		∅ D × L (mm)	(20°C/100kHz)	(105°C/100kHz)		∅ D × L (mm)	(20°C/100kHz)	(105°C/100kHz)
39	5 × 11	0.72	165	27	5 × 11	0.72	165	18	5 × 11	1.1	130
82	6.3 × 11	0.38	225	56	6.3 × 11	0.38	255	39	6.3 × 11	0.56	220
120	6.3 × 15	0.27	330	82	6.3 × 15	0.27	330	56	6.3 × 15	0.41	310
120	8 × 11.5	0.19	485	82	8 × 11.5	0.19	485	56	8 × 11.5	0.33	368
180	10 × 12.5	0.12	625	120	10 × 12.5	0.12	625	82	8 × 15	0.25	470
220	8 × 15	0.16	495	180	8 × 15	0.16	495	82	10 × 12.5	0.16	480
330	8 × 20	0.11	640	220	8 × 20	0.11	640	120	8 × 20	0.18	610
330	10 × 16	0.084	825	220	10 × 16	0.084	825	120	10 × 16	0.12	755
470	10 × 20	0.062	1,040	330	10 × 20	0.062	1,040	180	10 × 20	0.088	945
560	10 × 25	0.052	1,260	390	10 × 25	0.052	1,260	220	10 × 25	0.068	1,150
820	10 × 30	0.044	1,440	560	10 × 30	0.044	1,440	330	10 × 30	0.059	1,260
820	12.5 × 20	0.046	1,340	560	12.5 × 20	0.046	1,340	330	12.5 × 20	0.059	1,190
1,000	12.5 × 25	0.034	1,690	680	12.5 × 25	0.034	1,690	470	12.5 × 25	0.045	1,490
1,500	12.5 × 30	0.027	1,950	1,000	12.5 × 30	0.030	1,950	560	12.5 × 30	0.039	1,720
1,500	16 × 20	0.039	1,630	1,000	16 × 20	0.039	1,630	680	12.5 × 35	0.038	1,890
1,800	12.5 × 35	0.027	2,200	1,200	12.5 × 35	0.027	2,200	680	16 × 20	0.044	1,420
1,800	16 × 25	0.029	2,070	1,200	16 × 25	0.029	2,070	820	12.5 × 42.5	0.029	2,030
2,200	12.5 × 42.5	0.024	2,390	1,500	12.5 × 42.5	0.024	2,390	820	16 × 25	0.034	1,880
2,200	18 × 20	0.038	1,750	1,500	18 × 20	0.038	1,750	820	18 × 20	0.041	1,520
2,700	16 × 31.5	0.026	2,350	1,800	16 × 31.5	0.026	2,350	1,000	16 × 31.5	0.030	2,150
2,700	18 × 25	0.029	2,130	1,800	18 × 25	0.029	2,130	1,000	18 × 25	0.032	1,930
3,300	16 × 35.5	0.023	2,550	2,200	16 × 35.5	0.023	2,550	1,200	16 × 35.5	0.026	2,320
3,300	18 × 31.5	0.026	2,410	2,200	18 × 31.5	0.026	2,410	1,500	18 × 31.5	0.028	2,200
3,900	18 × 35.5	0.023	2,660	2,700	18 × 35.5	0.023	2,660	1,800	18 × 35.5	0.025	2,400
4,700	18 × 40	0.019	3,010	3,300	18 × 40	0.019	3,010	2,200	18 × 40	0.022	2,610



MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS

RATED RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

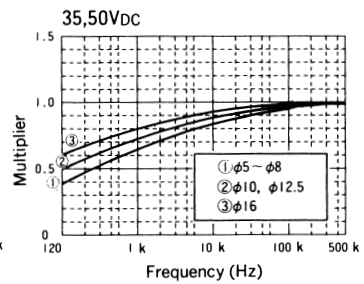
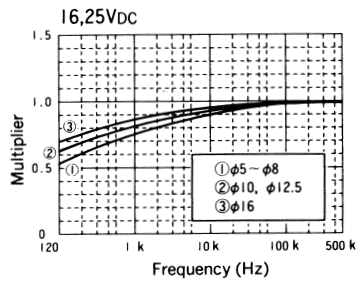
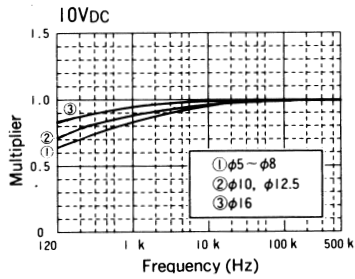
Rated voltage (Vdc)	ø D (mm)	Frequency			
		120Hz	1kHz	10kHz	100kHz
6.3~10	ø 5~ø 8	0.65	0.83	0.95	1.00
	ø 10~ø 12.5	0.70	0.85	0.96	1.00
	ø 16~ø 18	0.85	0.92	0.97	1.00
16~25	ø 5~ø 8	0.55	0.76	0.91	1.00
	ø 10~ø 12.5	0.65	0.83	0.93	1.00
	ø 16~ø 18	0.70	0.87	0.96	1.00
35~50	ø 5~ø 8	0.40	0.66	0.85	1.00
	ø 10~ø 12.5	0.50	0.73	0.89	1.00
	ø 16~ø 18	0.60	0.81	0.94	1.00

RATED RIPPLE CURRENT MULTIPLIERS

Note:

When long life performance is required in actual use, the rms ripple current has to be reduced.

Frequency Multipliers



Specifications are subject to change without notice.