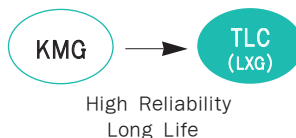


## TLC(LXG) Series

• 105°C 5,000Hrs assured.

- Non-solvent proof.
- Long life.
- Almost equal to KMG case sizes.
- For SMPS, Inverter
- RoHS compliant.
- Halogen-free capacitors are also available.



## SPECIFICATIONS

Item	Characteristics																									
Rated Voltage Range	10 ~ 100 V <sub>DC</sub>	200 ~ 500 V <sub>DC</sub>																								
Operating Temperature Range	-40 ~ +105°C	-25 ~ +105°C																								
Capacitance Tolerance	±20%(M) (at 20°C, 120Hz)																									
Leakage Current	I = 0.02CV or 3mA, whichever is smaller. Where, I: Leakage current (µA) C: Nominal capacitance (µF) V: Rated voltage (V <sub>DC</sub> ) (at 20°C, 5 minutes)																									
※ Dissipation Factor(Tanδ)	<table border="1"> <tr> <td>Rated Voltage(V<sub>DC</sub>)</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63~400</td> <td>420~500</td> </tr> <tr> <td>Tanδ(Max.)</td> <td>0.60</td> <td>0.45</td> <td>0.30</td> <td>0.25</td> <td>0.20</td> <td>0.15</td> <td>0.20</td> </tr> </table> (at 20°C, 120Hz)		Rated Voltage(V <sub>DC</sub> )	10	16	25	35	50	63~400	420~500	Tanδ(Max.)	0.60	0.45	0.30	0.25	0.20	0.15	0.20								
Rated Voltage(V <sub>DC</sub> )	10	16	25	35	50	63~400	420~500																			
Tanδ(Max.)	0.60	0.45	0.30	0.25	0.20	0.15	0.20																			
Temperature Characteristics (Max.Impedance ratio)	<table border="1"> <tr> <td>Rated Voltage(V<sub>DC</sub>)</td> <td>10~16</td> <td>25</td> <td>35</td> <td>50~63</td> <td>80~100</td> <td>200~400</td> <td>420~500</td> </tr> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>4</td> <td>3</td> <td>3</td> <td>2</td> <td>2</td> <td>4</td> <td>8</td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>15</td> <td>10</td> <td>8</td> <td>6</td> <td>5</td> <td>-</td> <td>-</td> </tr> </table> (at 120Hz)		Rated Voltage(V <sub>DC</sub> )	10~16	25	35	50~63	80~100	200~400	420~500	Z(-25°C)/Z(20°C)	4	3	3	2	2	4	8	Z(-40°C)/Z(20°C)	15	10	8	6	5	-	-
Rated Voltage(V <sub>DC</sub> )	10~16	25	35	50~63	80~100	200~400	420~500																			
Z(-25°C)/Z(20°C)	4	3	3	2	2	4	8																			
Z(-40°C)/Z(20°C)	15	10	8	6	5	-	-																			
Load Life	After the capacitor are subjected to DC voltage and the rated ripple current applied for 5,000 hours at 105°C, the following specifications shall be satisfied when the capacitors are restored to 20°C. The sum of DC voltage and peak AC voltage must not exceed the full rated voltage of the capacitor. Capacitance change ≤ ±25% of the initial value Tanδ ≤ 250% 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 at 105°C for 500 hours 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 ≤ ±20% of the initial value Tanδ ≤ 150% of the initial specified value Leakage current ≤ The initial specified value																									
Others	Satisfied characteristics KS C IEC 60384-4																									

※ For capacitors with CV products > 100,000 higher Tanδ value may apply.  
When the capacitance exceeds 1,000µF, 0.01 shall be added every 1,000µF increase.

## RATED RIPPLE CURRENT

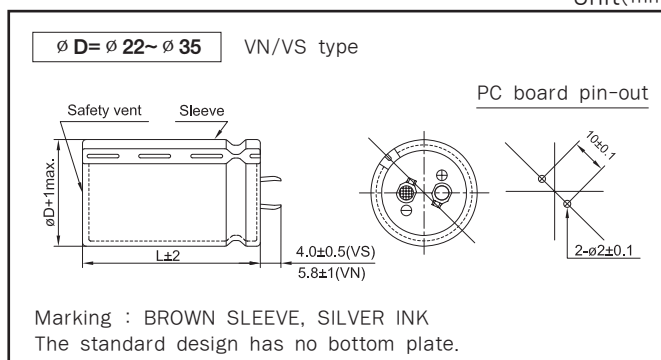
When capacitors are operated in any other conditions at 120Hz the maximum ripple current must be multiplied by the figure shown in the table.

Frequency multiplying factor

Frequency(Hz)	50	120	300	1k	10k~
10~50V <sub>DC</sub>	0.95	1.00	1.03	1.05	1.08
63~100V <sub>DC</sub>	0.92	1.00	1.07	1.13	1.19
200, 250V <sub>DC</sub>	0.81	1.00	1.17	1.32	1.45
350~450V <sub>DC</sub>	0.77	1.00	1.16	1.30	1.41

## DIMENSIONS OF TLC(LXG) Series

Unit(mm)





# LARGE SIZED ALUMINUM ELECTROLYTIC CAPACITORS

## RATINGS OF TLC(LXG) Series

μF \ V <sub>DC</sub> / ∅ D	10				16				25			
	22	25.4	30	35	22	25.4	30	35	22	25.4	30	35
3,900									22 × 25 1.31			
4,700									22 × 30 1.51	25.4 × 25 1.51		
5,600					22 × 25 1.44				22 × 35 1.70			
6,800	22 × 25 1.30				22 × 30 1.66	25.4 × 25 1.66			22 × 40 1.92	25.4 × 30 1.87	30 × 25 1.90	
8,200					22 × 35 1.87					25.4 × 35 2.14	30 × 30 2.15	35 × 25 2.19
10,000	22 × 30 1.65	25.4 × 25 1.64			22 × 40 2.12	25.4 × 30 2.07	30 × 25 2.11		22 × 50 2.45	25.4 × 40 2.43		
12,000	22 × 35 1.85	25.4 × 30 1.85	30 × 25 1.89			25.4 × 35 2.37	30 × 30 2.37	35 × 25 2.42		25.4 × 50 2.78	30 × 35 2.70	35 × 30 2.76
15,000	22 × 40 2.12	25.4 × 35 2.16			22 × 50 2.74	25.4 × 40 2.71					30 × 40 3.13	35 × 35 3.16
18,000	22 × 50 2.45	25.4 × 40 2.43	30 × 30 2.37	35 × 25 2.42		25.4 × 50 3.11	30 × 35 3.02	35 × 30 3.09			30 × 50 3.64	35 × 40 3.61
22,000			30 × 35 2.73	35 × 30 2.79			30 × 40 3.46	35 × 35 3.49				
27,000		25.4 × 50 3.11	30 × 40 3.13				30 × 50 4.07	35 × 40 4.04				35 × 50 4.70
33,000				35 × 35 3.49								
39,000			30 × 50 3.99	35 × 40 3.96				35 × 50 5.16				
47,000				35 × 50 4.62								

μF \ V <sub>DC</sub> / ∅ D	35				50				63			
	22	25.4	30	35	22	25.4	30	35	22	25.4	30	35
1,000									22 × 25 1.00			
1,200									22 × 30 1.15	25.4 × 25 1.15		
1,500					22 × 25 1.02				22 × 35 1.32			
1,800					22 × 30 1.17	25.4 × 25 1.17			22 × 40 1.49	25.4 × 30 1.45	30 × 25 1.48	
2,200	22 × 25 1.10				22 × 35 1.33					25.4 × 35 1.67	30 × 30 1.68	35 × 25 1.71
2,700					22 × 40 1.51	25.4 × 30 1.47	30 × 25 1.50		22 × 50 1.92	25.4 × 40 1.90	30 × 35 1.93	
3,300	22 × 30 1.42	25.4 × 25 1.41				25.4 × 35 1.70	30 × 30 1.70	35 × 25 1.74		25.4 × 50 2.20		35 × 30 2.18
3,900	22 × 35 1.58	25.4 × 30 1.58			22 × 50 1.91	25.4 × 40 1.89					30 × 40 2.41	35 × 35 2.43
4,700	22 × 40 1.78		30 × 35 1.77				30 × 35 2.11	35 × 30 2.16			30 × 50 2.80	35 × 40 2.78
5,600		25.4 × 35 1.98	30 × 30 1.98	35 × 25 2.03		25.4 × 50 2.38	30 × 40 2.39	35 × 35 2.41				
6,800	22 × 50 2.26	25.4 × 40 2.24					30 × 50 2.79	35 × 40 2.78				35 × 50 3.55
8,200		25.4 × 50 2.57	30 × 35 2.50	35 × 30 2.55								
10,000			30 × 40 2.86	35 × 35 2.88				35 × 50 3.57				
12,000			30 × 50 3.32	35 × 40 3.30								
18,000				35 × 50 4.29	← Case Size ∅ D × L (mm)			← Rated Ripple Current (Arms/105°C, 120Hz)				

## RATINGS OF TLC(LXG) Series

V <sub>DC</sub> μF / ∅ D	80				100				200			
	22	25.4	30	35	22	25.4	30	35	22	25.4	30	35
180									22X25 0.63			
270									22X30 0.81	25.4X25 0.81		
330									22X35 0.92	25.4X30 0.92	30X25 0.94	
390					22X25 0.78				22X40 1.02			
470									22X50 1.17	25.4X35 1.15	30X30 1.15	35X25 1.22
560					22X30 0.99	25.4X25 0.98				25.4X40 1.28	30X35 1.30	
680	22X25 0.97				22X35 1.12					25.4X50 1.48	30X40 1.49	35X30 1.47
820	22X30 1.12				22X40 1.26	25.4X30 1.23	30X25 1.25					35X35 1.65
1,000	22X35 1.27	25.4X25 1.23				25.4X35 1.41	30X30 1.42	35X25 1.45			30X50 1.91	35X40 1.90
1,200	22X40 1.42	25.4X30 1.39	30X25 1.41		22X50 1.60	25.4X40 1.59	30X35 1.61					35X50 2.21
1,500		25.4X35 1.62				25.4X50 1.86	30X40 1.87	35X30 1.85				
1,800	22X50 1.84	25.4X40 1.82	30X30 1.78	35X25 1.82				35X35 2.07				
2,200		25.4X50 2.11	30X35 2.05	35X30 2.09			30X50 2.40	35X40 2.39				
2,700			30X40 2.35	35X35 2.37				35X50 2.81				
3,300			30X50 2.75	35X40 2.73								
4,700				35X50 3.46								

V <sub>DC</sub> μF / ∅ D	250				350				400			
	22	25.4	30	35	22	25.4	30	35	22	25.4	30	35
56									22X25 0.34			
68					22X25 0.39				22X30 0.44	25.4X25 0.40		
82					22X30 0.49				22X35 0.50			
100					22X35 0.52	25.4X25 0.51				25.4X30 0.52	30X25 0.52	
120					22X40 0.56	25.4X30 0.55	30X25 0.56		22X40 0.57	25.4X35 0.58		35X25 0.61
150	22X25 0.57					25.4X35 0.60		35X25 0.69	22X50 0.67	25.4X40 0.66	30X30 0.65	
180	22X30 0.66	25.4X25 0.66			22X50 0.73	25.4X40 0.72	30X30 0.71				30X35 0.74	35X30 0.76
220	22X35 0.75					25.4X50 0.93	30X35 0.82	35X30 0.83		25.4X50 0.84	30X40 0.84	35X35 0.94
270	22X40 0.85	25.4X30 0.83	30X25 0.85				30X40 0.94	35X35 1.04			30X50 1.10	35X40 1.09
330		25.4X35 0.96	30X30 0.96	35X25 1.02			30X50 1.19	35X40 1.19				
390	22X50 1.08	25.4X40 1.07										35X50 1.26
470		25.4X50 1.22	30X35 1.19	35X30 1.22				35X50 1.38				
560			30X40 1.35	35X35 1.36								
680			30X50 1.58	35X40 1.57								
1,000				35X50 2.02	← Case Size ∅D×L (mm) ← Rated Ripple Current (Arms/105°C, 120Hz)							



# LARGE SIZED ALUMINUM ELECTROLYTIC CAPACITORS

## RATINGS OF TLC(LXG) Series

μF	V <sub>DC</sub> ∅ D	420				450				500			
		22	25.4	30	35	22	25.4	30	35	22	25.4	30	35
47						22 × 25 0.30				22 × 35 0.32			
56						22 × 30 0.36				22 × 35 0.38	25.4 × 30 0.36	30 × 30 0.39	
68		22 × 30 0.44				22 × 35 0.44	25.4 × 30 0.45			22 × 40 0.45	25.4 × 35 0.47	30 × 30 0.44	
82		22 × 30 0.50	25.4 × 30 0.50			22 × 35 0.50	25.4 × 30 0.50			22 × 45 0.54	25.4 × 35 0.54	30 × 35 0.50	
100		22 × 35 0.52	25.4 × 30 0.52			22 × 40 0.53	25.4 × 35 0.52	30 × 30 0.53			25.4 × 40 0.55	30 × 35 0.56	
120		22 × 40 0.56	25.4 × 35 0.56	30 × 30 0.57		22 × 45 0.57	25.4 × 35 0.58	30 × 30 0.58	35 × 30 0.59		25.4 × 45 0.62	30 × 40 0.62	35 × 30 0.63
150		22 × 45 0.67	25.4 × 40 0.67	30 × 30 0.67		22 × 50 0.67	25.4 × 40 0.67	30 × 35 0.67	35 × 30 0.68			30 × 45 0.70	35 × 35 0.71
180		22 × 50	25.4 × 40 0.74	30 × 35 0.75	35 × 30 0.76		25.4 × 45 0.76	30 × 35 0.76				30 × 50 0.85	35 × 40 0.86
220			25.4 × 50 0.84	30 × 40 0.84	35 × 30 0.84		25.4 × 50 0.84	30 × 40 0.84	35 × 35 0.86			30 × 60 1.00	35 × 45 0.95
270				30 × 45 1.10	35 × 35 1.10			30 × 45 1.10	35 × 40 1.11				35 × 50 1.20
330				30 × 50 1.22	35 × 40 1.22			30 × 50 1.22	35 × 45 1.23				35 × 60 1.35
390					35 × 45 1.35				35 × 50 1.35				
470					35 × 50 1.47								

← Case Size ∅ D×L(mm)

← Rated Ripple Current(Arms/105°C, 120Hz)