

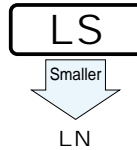
# ALUMINUM ELECTROLYTIC CAPACITORS

**LS** Snap-in Terminal Type, Standard series



Anti-Solvent Feature (Through 100V only)

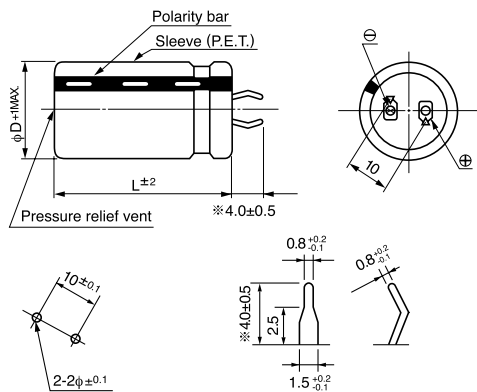
- Withstanding 3000 hours application of rated ripple current at 85°C.
- Adapted to the RoHS directive (2002/95/EC).



## Specifications

Item	Performance Characteristics																													
Category Temperature Range	- 40 ~ +85°C (16~250V), - 25 ~ +85°C (350 ~ 450V)																													
Rated Voltage Range	16 ~ 450V																													
Rated Capacitance Range	56 ~ 56000μF																													
Capacitance Tolerance	± 20% at 120Hz, 20°C																													
Leakage Current	$I \leq 3\sqrt{CV}$ (μA) (After 5 minutes' application of rated voltage) [C : Rated Capacitance (μF) V : Voltage (V)]																													
tan δ	Measurement frequency : 120Hz, Temperature : 20°C																													
	<table border="1"> <thead> <tr> <th>Rated voltage (V)</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>80</th> <th>100</th> <th>160</th> <th>180</th> <th>200</th> <th>250</th> <th>350</th> <th>400</th> <th>450</th> </tr> </thead> <tbody> <tr> <td>tan δ (MAX.)</td> <td>0.50</td> <td>0.40</td> <td>0.35</td> <td>0.30</td> <td>0.25</td> <td>0.20</td> <td>0.20</td> <td>0.15</td> <td>0.15</td> <td>0.15</td> <td>0.15</td> <td>0.15</td> <td>0.15</td> <td>0.20</td> </tr> </tbody> </table>	Rated voltage (V)	16	25	35	50	63	80	100	160	180	200	250	350	400	450	tan δ (MAX.)	0.50	0.40	0.35	0.30	0.25	0.20	0.20	0.15	0.15	0.15	0.15	0.15	0.15
Rated voltage (V)	16	25	35	50	63	80	100	160	180	200	250	350	400	450																
tan δ (MAX.)	0.50	0.40	0.35	0.30	0.25	0.20	0.20	0.15	0.15	0.15	0.15	0.15	0.15	0.20																
Stability at Low Temperature	Measurement frequency : 120Hz																													
	<table border="1"> <thead> <tr> <th colspan="2">Rated voltage (V)</th> <th>16 ~ 100</th> <th>160 ~ 250</th> <th>350 ~ 450</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Impedance ratio ZT/Z20(MAX.)</td> <td>Z - 25°C/Z+20°C</td> <td>4</td> <td>3</td> <td>8</td> </tr> <tr> <td>Z - 40°C/Z+20°C</td> <td>20</td> <td>12</td> <td>—</td> </tr> </tbody> </table>	Rated voltage (V)		16 ~ 100	160 ~ 250	350 ~ 450	Impedance ratio ZT/Z20(MAX.)	Z - 25°C/Z+20°C	4	3	8	Z - 40°C/Z+20°C	20	12	—															
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	Z - 40°C/Z+20°C	20	12	—																										
Endurance	After an application of DC voltage (in the range of rated DC voltage even after over-lapping the specified ripple current) for 3000 hours at 85°C, capacitors meet the characteristic requirements listed at right.																													
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Leakage current	Initial specified value or less																													
Shelf Life	After storing the capacitors under no load at 85°C for 1000 hours, and after performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they will meet the requirements listed at right.																													
	<table border="1"> <tbody> <tr> <td>Capacitance change</td> <td>Within ±15% of initial value</td> </tr> <tr> <td>tan δ</td> <td>150% or less of initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>Initial specified value or less</td> </tr> </tbody> </table>	Capacitance change	Within ±15% of initial value	tan δ	150% or less of initial specified value	Leakage current	Initial specified value or less																							
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tan δ	150% or less of initial specified value																													
Leakage current	Initial specified value or less																													
Marking	Printed with white color letter on black sleeve.																													

## Drawing

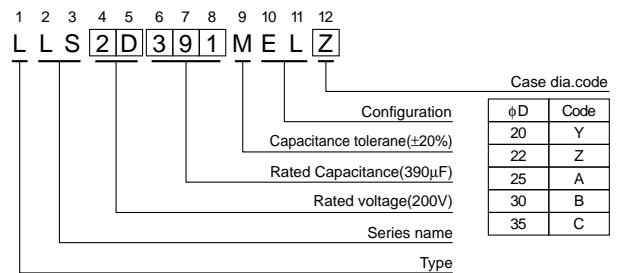


(PC board hole dimensions)

(Terminal dimensions)

\* The other terminal is also available upon request.  
Please refer to page 237 for schematic of dimensions.

## Type numbering system ( Example : 200V 390μF)



## Frequency coefficient of rated ripple current

Frequency (Hz)	50	60	120	300	1 k	10k	50k~
Coeff.	16~ 100V	0.88	0.90	1.00	1.07	1.15	1.15
	160~ 250V	0.81	0.85	1.00	1.17	1.32	1.45
	350~ 450V	0.77	0.82	1.00	1.16	1.30	1.41

Minimum order quantity : 50pcs.

● Dimension table in next page.

# ALUMINUM ELECTROLYTIC CAPACITORS

LS series

## ■ Dimensions

16V (1C)					
Cap. (μF)	Size φD × L(mm)	Rated ripple (mA)	tan δ	Leakage Current (mA)	Code
8200	22 × 25	2560	0.50	1.08	LLS1C822MELZ
10000	22 × 30	2890	0.50	1.20	LLS1C103MELZ
12000	22 × 30	3130	0.50	1.31	LLS1C123MELZ
	25 × 25	3010	0.50	1.31	LLS1C123MELA
15000	22 × 35	3690	0.50	1.46	LLS1C153MELZ
	25 × 30	3640	0.50	1.46	LLS1C153MELA
	30 × 25	3730	0.50	1.46	LLS1C153MELB
18000	22 × 40	3980	0.50	1.60	LLS1C183MELZ
	25 × 35	3980	0.50	1.60	LLS1C183MELA
	30 × 30	3880	0.50	1.60	LLS1C183MELB
22000	22 × 50	4520	0.50	1.77	LLS1C223MELZ
	25 × 40	4440	0.50	1.77	LLS1C223MELA
	30 × 30	4380	0.50	1.77	LLS1C223MELB
27000	25 × 45	4980	0.50	1.97	LLS1C273MELA
	30 × 35	4950	0.50	1.97	LLS1C273MELB
	35 × 30	4820	0.50	1.97	LLS1C273MELC
33000	25 × 50	5490	0.50	2.17	LLS1C333MELA
	30 × 40	5600	0.50	2.17	LLS1C333MELB
	35 × 30	5460	0.50	2.17	LLS1C333MELC
39000	30 × 45	6210	0.50	2.36	LLS1C393MELB
	35 × 35	6120	0.50	2.36	LLS1C393MELC
47000	30 × 50	6930	0.50	2.60	LLS1C473MELB
	35 × 40	6890	0.50	2.60	LLS1C473MELC
56000	35 × 45	7690	0.50	2.83	LLS1C563MELC

25V (1E)					
Cap. (μF)	Size φD × L(mm)	Rated ripple (mA)	tan δ	Leakage Current (mA)	Code
5600	22 × 25	2310	0.40	1.12	LLS1E562MELZ
6800	22 × 30	2560	0.40	1.23	LLS1E682MELZ
	25 × 25	2470	0.40	1.23	LLS1E682MELA
8200	22 × 35	2860	0.40	1.35	LLS1E822MELZ
	25 × 25	2780	0.40	1.35	LLS1E822MELA
10000	22 × 35	3310	0.40	1.50	LLS1E103MELZ
	25 × 30	3160	0.40	1.50	LLS1E103MELA
12000	22 × 40	3770	0.40	1.64	LLS1E123MELZ
	25 × 35	3630	0.40	1.64	LLS1E123MELA
	30 × 25	3800	0.40	1.64	LLS1E123MELB
15000	22 × 50	4210	0.40	1.83	LLS1E153MELZ
	25 × 40	4100	0.40	1.83	LLS1E153MELA
	30 × 30	4000	0.40	1.83	LLS1E153MELB
18000	25 × 45	4680	0.40	2.01	LLS1E183MELA
	30 × 35	4660	0.40	2.01	LLS1E183MELB
	35 × 30	4680	0.40	2.01	LLS1E183MELC
22000	25 × 50	5190	0.40	2.22	LLS1E223MELA
	30 × 40	5330	0.40	2.22	LLS1E223MELB
	35 × 35	5260	0.40	2.22	LLS1E223MELC
27000	30 × 45	6020	0.40	2.46	LLS1E273MELB
	35 × 40	6020	0.40	2.46	LLS1E273MELC
33000	35 × 45	6750	0.40	2.72	LLS1E333MELC
39000	35 × 50	7560	0.40	2.96	LLS1E393MELC

35V (1V)					
Cap. (μF)	Size φD × L(mm)	Rated ripple (mA)	tan δ	Leakage Current (mA)	Code
3900	22 × 25	2220	0.35	1.10	LLS1V392MELZ
4700	22 × 30	2460	0.35	1.21	LLS1V472MELZ
	25 × 25	2430	0.35	1.21	LLS1V472MELA
5600	22 × 35	2790	0.35	1.32	LLS1V562MELZ
	25 × 30	2750	0.35	1.32	LLS1V562MELA
6800	22 × 40	2970	0.35	1.46	LLS1V682MELZ
	25 × 30	2890	0.35	1.46	LLS1V682MELA
	30 × 25	3090	0.35	1.46	LLS1V682MELB
8200	22 × 45	3470	0.35	1.60	LLS1V822MELZ
	25 × 35	3330	0.35	1.60	LLS1V822MELA
	30 × 30	3290	0.35	1.60	LLS1V822MELB
10000	22 × 50	3750	0.35	1.77	LLS1V103MELZ
	25 × 40	3650	0.35	1.77	LLS1V103MELA
	30 × 30	3610	0.35	1.77	LLS1V103MELB
12000	25 × 45	4150	0.35	1.94	LLS1V123MELA
	30 × 35	4140	0.35	1.94	LLS1V123MELB
	35 × 30	4270	0.35	1.94	LLS1V123MELC
15000	25 × 50	4800	0.35	2.17	LLS1V153MELA
	30 × 40	4800	0.35	2.17	LLS1V153MELB
18000	30 × 45	5300	0.35	2.38	LLS1V183MELB
	35 × 40	5710	0.35	2.38	LLS1V183MELC
22000	35 × 45	6380	0.35	2.63	LLS1V223MELC
27000	35 × 50	6900	0.35	2.91	LLS1V273MELC

50V (1H)					
Cap. (μF)	Size φD × L(mm)	Rated ripple (mA)	tan δ	Leakage Current (mA)	Code
2200	22 × 25	1930	0.30	0.99	LLS1H222MELZ
2700	22 × 30	2210	0.30	1.10	LLS1H272MELZ
3300	22 × 30	2410	0.30	1.21	LLS1H332MELZ
	25 × 25	2380	0.30	1.21	LLS1H332MELA
3900	22 × 35	2720	0.30	1.32	LLS1H392MELZ
	25 × 30	2680	0.30	1.32	LLS1H392MELA
4700	22 × 40	3020	0.30	1.45	LLS1H472MELZ
	25 × 30	3070	0.30	1.45	LLS1H472MELA
	30 × 25	3010	0.30	1.45	LLS1H472MELB
5600	22 × 45	3430	0.30	1.58	LLS1H562MELZ
	25 × 35	3470	0.30	1.58	LLS1H562MELA
	30 × 30	3430	0.30	1.58	LLS1H562MELB
6800	22 × 50	3940	0.30	1.74	LLS1H682MELZ
	25 × 40	3870	0.30	1.74	LLS1H682MELA
	30 × 35	3930	0.30	1.74	LLS1H682MELB
8200	25 × 45	4440	0.30	1.92	LLS1H822MELA
	30 × 35	4470	0.30	1.92	LLS1H822MELB
	35 × 30	4410	0.30	1.92	LLS1H822MELC
10000	30 × 40	5080	0.30	2.12	LLS1H103MELB
	35 × 35	4920	0.30	2.12	LLS1H103MELC
12000	30 × 50	5720	0.30	2.32	LLS1H123MELB
	35 × 40	5690	0.30	2.32	LLS1H123MELC
15000	35 × 45	6560	0.30	2.59	LLS1H153MELC
18000	35 × 50	7140	0.30	2.84	LLS1H183MELC

Rated Ripple (mA) at 85°C 120Hz

# ALUMINUM ELECTROLYTIC CAPACITORS

LS series

## ■ Dimensions

63V (1J)					
Cap. (μF)	Size φD × L(mm)	Rated ripple (mA)	tan δ	Leakage Current (mA)	Code
1800	22 × 25	1900	0.25	1.01	LLS1J182MELZ
2200	22 × 30	2350	0.25	1.11	LLS1J222MELZ
	25 × 25	2300	0.25	1.11	LLS1J222MELA
2700	22 × 35	2500	0.25	1.23	LLS1J272MELZ
	25 × 30	2520	0.25	1.23	LLS1J272MELA
3300	22 × 35	2720	0.25	1.36	LLS1J332MELZ
	25 × 30	2740	0.25	1.36	LLS1J332MELA
	30 × 25	2840	0.25	1.36	LLS1J332MELB
3900	22 × 40	3090	0.25	1.48	LLS1J392MELZ
	25 × 35	3130	0.25	1.48	LLS1J392MELA
	30 × 30	3090	0.25	1.48	LLS1J392MELB
4700	22 × 50	3690	0.25	1.63	LLS1J472MELZ
	25 × 40	3590	0.25	1.63	LLS1J472MELA
	30 × 30	3540	0.25	1.63	LLS1J472MELB
5600	25 × 45	4010	0.25	1.78	LLS1J562MELA
	30 × 35	4000	0.25	1.78	LLS1J562MELB
	35 × 30	3750	0.25	1.78	LLS1J562MELC
6800	25 × 50	4520	0.25	1.96	LLS1J682MELA
	30 × 40	4550	0.25	1.96	LLS1J682MELB
	35 × 30	4440	0.25	1.96	LLS1J682MELC
8200	30 × 45	5120	0.25	2.15	LLS1J822MELB
	35 × 35	5050	0.25	2.15	LLS1J822MELC
10000	30 × 50	5780	0.25	2.38	LLS1J103MELB
	35 × 40	5750	0.25	2.38	LLS1J103MELC
12000	35 × 45	6470	0.25	2.60	LLS1J123MELC

80V (1K)					
Cap. (μF)	Size φD × L(mm)	Rated ripple (mA)	tan δ	Leakage Current (mA)	Code
1200	22 × 25	1770	0.20	0.92	LLS1K122MELZ
1500	22 × 30	2010	0.20	1.03	LLS1K152MELZ
1800	22 × 30	2110	0.20	1.13	LLS1K182MELZ
	25 × 25	2260	0.20	1.13	LLS1K182MELA
2200	22 × 35	2530	0.20	1.25	LLS1K222MELZ
	25 × 30	2530	0.20	1.25	LLS1K222MELA
	30 × 25	2560	0.20	1.25	LLS1K222MELB
2700	22 × 40	2930	0.20	1.39	LLS1K272MELZ
	25 × 35	2930	0.20	1.39	LLS1K272MELA
	30 × 30	2910	0.20	1.39	LLS1K272MELB
3300	22 × 45	3230	0.20	1.54	LLS1K332MELZ
	25 × 40	3290	0.20	1.54	LLS1K332MELA
	30 × 30	3250	0.20	1.54	LLS1K332MELB
3900	22 × 50	3620	0.20	1.67	LLS1K392MELZ
	25 × 45	3710	0.20	1.67	LLS1K392MELA
	30 × 35	3700	0.20	1.67	LLS1K392MELB
4700	25 × 50	4280	0.20	1.83	LLS1K472MELA
	30 × 40	4230	0.20	1.83	LLS1K472MELB
	35 × 30	4120	0.20	1.83	LLS1K472MELC
5600	30 × 45	4700	0.20	2.00	LLS1K562MELB
	35 × 35	4640	0.20	2.00	LLS1K562MELC
6800	30 × 50	5270	0.20	2.21	LLS1K682MELB
	35 × 40	5240	0.20	2.21	LLS1K682MELC
8200	35 × 45	5890	0.20	2.42	LLS1K822MELC
10000	35 × 50	6630	0.20	2.68	LLS1K103MELC

100V (2A)					
Cap. (μF)	Size φD × L(mm)	Rated ripple (mA)	tan δ	Leakage Current (mA)	Code
820	22 × 25	1860	0.20	0.85	LLS2A821MELZ
1000	22 × 30	2020	0.20	0.94	LLS2A102MELZ
1200	22 × 30	2120	0.20	1.03	LLS2A122MELZ
	25 × 25	2110	0.20	1.03	LLS2A122MELA
1500	22 × 35	2450	0.20	1.16	LLS2A152MELZ
	25 × 30	2470	0.20	1.16	LLS2A152MELA
	30 × 25	2560	0.20	1.16	LLS2A152MELB
1800	22 × 40	2770	0.20	1.27	LLS2A182MELZ
	25 × 35	2810	0.20	1.27	LLS2A182MELA
	30 × 25	2650	0.20	1.27	LLS2A182MELB
2200	22 × 45	3150	0.20	1.40	LLS2A222MELZ
	25 × 40	3210	0.20	1.40	LLS2A222MELA
	30 × 30	3170	0.20	1.40	LLS2A222MELB
2700	25 × 45	3660	0.20	1.55	LLS2A272MELA
	30 × 35	3650	0.20	1.55	LLS2A272MELB
	35 × 30	3770	0.20	1.55	LLS2A272MELC
3300	25 × 50	4150	0.20	1.72	LLS2A332MELA
	30 × 40	4180	0.20	1.72	LLS2A332MELB
	35 × 35	4070	0.20	1.72	LLS2A332MELC
3900	30 × 45	4670	0.20	1.87	LLS2A392MELB
	35 × 35	4610	0.20	1.87	LLS2A392MELC
4700	30 × 50	5260	0.20	2.05	LLS2A472MELB
	35 × 40	5230	0.20	2.05	LLS2A472MELC
5600	35 × 45	5880	0.20	2.24	LLS2A562MELC
6800	35 × 50	6010	0.20	2.47	LLS2A682MELC

Rated Ripple (mArms) at 85°C 120Hz

# ALUMINUM ELECTROLYTIC CAPACITORS



LS series

## ■ Dimensions

160V (2C)					
Cap. (μF)	Size φD × L(mm)	Rated ripple (mA)	tan δ	Leakage Current (mA)	Code
270	20 × 25	1280	0.15	0.62	LLS2C271MELY
330	20 × 25	1550	0.15	0.68	LLS2C331MELY
390	20 × 30	1630	0.15	0.74	LLS2C391MELY
	22 × 25	1630	0.15	0.74	LLS2C391MELZ
470	20 × 30	1900	0.15	0.82	LLS2C471MELY
	22 × 30	1860	0.15	0.82	LLS2C471MELZ
	25 × 25	1860	0.15	0.82	LLS2C471MELA
560	20 × 35	2140	0.15	0.89	LLS2C561MELY
	22 × 30	2150	0.15	0.89	LLS2C561MELZ
	25 × 25	2150	0.15	0.89	LLS2C561MELA
680	20 × 40	2350	0.15	0.98	LLS2C681MELY
	22 × 35	2350	0.15	0.98	LLS2C681MELZ
	25 × 30	2330	0.15	0.98	LLS2C681MELA
	30 × 25	2330	0.15	0.98	LLS2C681MELB
820	22 × 40	2680	0.15	1.08	LLS2C821MELZ
	25 × 30	2650	0.15	1.08	LLS2C821MELA
	30 × 25	2640	0.15	1.08	LLS2C821MELB
1000	22 × 45	3020	0.15	1.20	LLS2C102MELZ
	25 × 35	3000	0.15	1.20	LLS2C102MELA
	30 × 30	2960	0.15	1.20	LLS2C102MELB
1200	25 × 40	3430	0.15	1.31	LLS2C122MELA
	30 × 30	3410	0.15	1.31	LLS2C122MELB
	35 × 25	3400	0.15	1.31	LLS2C122MELC
1500	25 × 50	3960	0.15	1.46	LLS2C152MELA
	30 × 35	3960	0.15	1.46	LLS2C152MELB
	35 × 30	3940	0.15	1.46	LLS2C152MELC
1800	30 × 40	4310	0.15	1.60	LLS2C182MELB
	35 × 35	4280	0.15	1.60	LLS2C182MELC
2200	30 × 50	4960	0.15	1.77	LLS2C222MELB
	35 × 40	4960	0.15	1.77	LLS2C222MELC
2700	35 × 45	5570	0.15	1.97	LLS2C272MELC

180V (2Z)					
Cap. (μF)	Size φD × L(mm)	Rated ripple (mA)	tan δ	Leakage Current (mA)	Code
270	20 × 25	1290	0.15	0.66	LLS2Z271MELY
330	20 × 30	1770	0.15	0.73	LLS2Z331MELY
	22 × 25	1770	0.15	0.73	LLS2Z331MELZ
390	20 × 30	1840	0.15	0.79	LLS2Z391MELY
	22 × 25	1840	0.15	0.79	LLS2Z391MELZ
470	20 × 35	1910	0.15	0.87	LLS2Z471MELY
	22 × 30	1910	0.15	0.87	LLS2Z471MELZ
	25 × 25	2080	0.15	0.87	LLS2Z471MELA
560	20 × 40	2150	0.15	0.95	LLS2Z561MELY
	22 × 35	2250	0.15	0.95	LLS2Z561MELZ
	25 × 25	2150	0.15	0.95	LLS2Z561MELA
680	22 × 35	2480	0.15	1.04	LLS2Z681MELZ
	25 × 30	2500	0.15	1.04	LLS2Z681MELA
	30 × 25	2460	0.15	1.04	LLS2Z681MELB
	22 × 40	2860	0.15	1.15	LLS2Z821MELZ
820	25 × 35	2750	0.15	1.15	LLS2Z821MELA
	30 × 25	2690	0.15	1.15	LLS2Z821MELB
	22 × 50	3100	0.15	1.27	LLS2Z102MELZ
1000	25 × 40	3060	0.15	1.27	LLS2Z102MELA
	30 × 30	3100	0.15	1.27	LLS2Z102MELB
	25 × 45	3630	0.15	1.39	LLS2Z122MELA
1200	30 × 35	3550	0.15	1.39	LLS2Z122MELB
	35 × 30	3490	0.15	1.39	LLS2Z122MELC
	30 × 40	4100	0.15	1.55	LLS2Z152MELB
1500	35 × 35	4020	0.15	1.55	LLS2Z152MELC
	30 × 45	4550	0.15	1.70	LLS2Z182MELB
1800	35 × 35	4540	0.15	1.70	LLS2Z182MELC
	2200	35 × 40	4830	0.15	1.88
2700	35 × 50	5300	0.15	2.09	LLS2Z272MELC

200V (2D)					
Cap. (μF)	Size φD × L(mm)	Rated ripple (mA)	tan δ	Leakage Current (mA)	Code
220	20 × 25	1190	0.15	0.62	LLS2D221MELY
270	20 × 25	1390	0.15	0.69	LLS2D271MELY
	22 × 25	1370	0.15	0.69	LLS2D271MELZ
330	20 × 30	1560	0.15	0.77	LLS2D331MELY
	22 × 25	1510	0.15	0.77	LLS2D331MELZ
390	20 × 35	1740	0.15	0.83	LLS2D391MELY
	22 × 30	1730	0.15	0.83	LLS2D391MELZ
	25 × 25	1710	0.15	0.83	LLS2D391MELA
470	20 × 35	2030	0.15	0.91	LLS2D471MELY
	22 × 30	1970	0.15	0.91	LLS2D471MELZ
	25 × 25	1950	0.15	0.91	LLS2D471MELA
560	20 × 40	2180	0.15	1.00	LLS2D561MELY
	22 × 35	2180	0.15	1.00	LLS2D561MELZ
	25 × 30	2150	0.15	1.00	LLS2D561MELA
	30 × 25	2150	0.15	1.00	LLS2D561MELB
680	22 × 40	2480	0.15	1.10	LLS2D681MELZ
	25 × 30	2480	0.15	1.10	LLS2D681MELA
	30 × 25	2480	0.15	1.10	LLS2D681MELB
820	22 × 45	2810	0.15	1.21	LLS2D821MELZ
	25 × 35	2790	0.15	1.21	LLS2D821MELA
	30 × 30	2800	0.15	1.21	LLS2D821MELB
1000	22 × 50	3280	0.15	1.34	LLS2D102MELZ
	25 × 40	3280	0.15	1.34	LLS2D102MELA
	30 × 35	3150	0.15	1.34	LLS2D102MELB
1200	30 × 35	3610	0.15	1.46	LLS2D122MELB
	35 × 30	3570	0.15	1.46	LLS2D122MELC
1500	30 × 45	4130	0.15	1.64	LLS2D152MELB
	35 × 35	4060	0.15	1.64	LLS2D152MELC
1800	30 × 50	4600	0.15	1.80	LLS2D182MELB
	35 × 40	4590	0.15	1.80	LLS2D182MELC
2200	35 × 45	5250	0.15	1.98	LLS2D222MELC

250V (2E)					
Cap. (μF)	Size φD × L(mm)	Rated ripple (mA)	tan δ	Leakage Current (mA)	Code
180	20 × 25	1200	0.15	0.63	LLS2E181MELY
220	20 × 25	1260	0.15	0.70	LLS2E221MELY
	22 × 25	1240	0.15	0.70	LLS2E221MELZ
270	20 × 30	1420	0.15	0.77	LLS2E271MELY
	22 × 25	1500	0.15	0.77	LLS2E271MELZ
330	20 × 35	1680	0.15	0.86	LLS2E331MELY
	22 × 30	1660	0.15	0.86	LLS2E331MELZ
	25 × 25	1610	0.15	0.86	LLS2E331MELA
390	20 × 40	1920	0.15	0.93	LLS2E391MELY
	22 × 35	1880	0.15	0.93	LLS2E391MELZ
	25 × 30	1880	0.15	0.93	LLS2E391MELA
470	22 × 35	2150	0.15	1.02	LLS2E471MELZ
	25 × 35	2150	0.15	1.02	LLS2E471MELA
	30 × 25	2040	0.15	1.02	LLS2E471MELB
	22 × 40	2480	0.15	1.12	LLS2E561MELZ
560	25 × 35	2350	0.15	1.12	LLS2E561MELA
	30 × 25	2350	0.15	1.12	LLS2E561MELB
	25 × 40	2670	0.15	1.23	LLS2E681MELA
680	30 × 30	2710	0.15	1.23	LLS2E681MELB
	25 × 45	3010	0.15	1.35	LLS2E821MELA
820	30 × 35	2980	0.15	1.35	LLS2E821MELB
	35 × 30	2960	0.15	1.35	LLS2E821MELC
	30 × 40	3560	0.15	1.50	LLS2E102MELB
1000	35 × 35	3480	0.15	1.50	LLS2E102MELC
	30 × 45	3990	0.15	1.64	LLS2E122MELB
1200	35 × 35	3840	0.15	1.64	LLS2E122MELC
	1500	35 × 40	4330	0.15	1.83
1800	35 × 50	4540	0.15	2.01	LLS2E182MELC

Rated Ripple (mA<sub>rms</sub>) at 85°C 120Hz

# ALUMINUM ELECTROLYTIC CAPACITORS

LS series

## ■ Dimensions

350V (2V)					
Cap. (μF)	Size φD × L(mm)	Rated ripple (mA)	tan δ	Leakage Current (mA)	Code
120	20 × 30	960	0.15	0.61	LLS2V121MELY
	22 × 25	1040	0.15	0.61	LLS2V121MELZ
150	20 × 30	1100	0.15	0.68	LLS2V151MELY
	22 × 30	1200	0.15	0.68	LLS2V151MELZ
180	25 × 25	1220	0.15	0.68	LLS2V151MELA
	20 × 35	1240	0.15	0.75	LLS2V181MELY
180	22 × 30	1340	0.15	0.75	LLS2V181MELZ
	25 × 25	1370	0.15	0.75	LLS2V181MELA
220	22 × 35	1470	0.15	0.83	LLS2V221MELZ
	25 × 30	1530	0.15	0.83	LLS2V221MELA
	30 × 25	1540	0.15	0.83	LLS2V221MELB
270	22 × 40	1700	0.15	0.92	LLS2V271MELZ
	25 × 35	1730	0.15	0.92	LLS2V271MELA
	30 × 25	1800	0.15	0.92	LLS2V271MELB
330	22 × 45	1870	0.15	1.01	LLS2V331MELZ
	25 × 35	1970	0.15	1.01	LLS2V331MELA
	30 × 30	2030	0.15	1.01	LLS2V331MELB
390	25 × 40	2140	0.15	1.10	LLS2V391MELA
	30 × 35	2230	0.15	1.10	LLS2V391MELB
	35 × 30	2300	0.15	1.10	LLS2V391MELC
470	25 × 50	2550	0.15	1.21	LLS2V471MELA
	30 × 35	2530	0.15	1.21	LLS2V471MELB
	35 × 30	2550	0.15	1.21	LLS2V471MELC
560	30 × 40	2730	0.15	1.32	LLS2V561MELB
	35 × 35	2750	0.15	1.32	LLS2V561MELC
680	30 × 50	3150	0.15	1.46	LLS2V681MELB
	35 × 40	3150	0.15	1.46	LLS2V681MELC
820	35 × 45	3470	0.15	1.60	LLS2V821MELC
1000	35 × 50	3600	0.15	1.77	LLS2V102MELC

400V (2G)					
Cap. (μF)	Size φD × L(mm)	Rated ripple (mA)	tan δ	Leakage Current (mA)	Code
68	20 × 25	750	0.15	0.49	LLS2G680MELY
82	20 × 30	820	0.15	0.54	LLS2G820MELY
	22 × 25	840	0.15	0.54	LLS2G820MELZ
100	20 × 30	950	0.15	0.60	LLS2G101MELY
	22 × 25	950	0.15	0.60	LLS2G101MELZ
120	20 × 35	1070	0.15	0.65	LLS2G121MELY
	22 × 30	1090	0.15	0.65	LLS2G121MELZ
	25 × 25	1130	0.15	0.65	LLS2G121MELA
150	20 × 40	1220	0.15	0.73	LLS2G151MELY
	22 × 35	1240	0.15	0.73	LLS2G151MELZ
	25 × 30	1270	0.15	0.73	LLS2G151MELA
180	22 × 40	1410	0.15	0.80	LLS2G181MELZ
	25 × 30	1440	0.15	0.80	LLS2G181MELA
	30 × 25	1520	0.15	0.80	LLS2G181MELB
220	22 × 45	1580	0.15	0.88	LLS2G221MELZ
	25 × 35	1640	0.15	0.88	LLS2G221MELA
	30 × 30	1660	0.15	0.88	LLS2G221MELB
270	25 × 40	1790	0.15	0.98	LLS2G271MELA
	30 × 30	1820	0.15	0.98	LLS2G271MELB
330	25 × 45	2000	0.15	1.08	LLS2G331MELA
	30 × 35	2050	0.15	1.08	LLS2G331MELB
	35 × 30	2050	0.15	1.08	LLS2G331MELC
390	30 × 40	2260	0.15	1.18	LLS2G391MELB
	35 × 35	2280	0.15	1.18	LLS2G391MELC
470	30 × 45	2510	0.15	1.30	LLS2G471MELB
	35 × 35	2510	0.15	1.30	LLS2G471MELC
560	30 × 50	2850	0.15	1.41	LLS2G561MELB
	35 × 40	2850	0.15	1.41	LLS2G561MELC
680	35 × 50	3100	0.15	1.56	LLS2G681MELC

450V (2W)					
Cap. (μF)	Size φD × L(mm)	Rated ripple (mA)	tan δ	Leakage Current (mA)	Code
56	20 × 25	610	0.20	0.47	LLS2W560MELY
68	20 × 30	710	0.20	0.52	LLS2W680MELY
	22 × 25	710	0.20	0.52	LLS2W680MELZ
82	20 × 35	800	0.20	0.57	LLS2W820MELY
	22 × 25	860	0.20	0.57	LLS2W820MELZ
100	20 × 35	880	0.20	0.63	LLS2W101MELY
	22 × 30	950	0.20	0.63	LLS2W101MELZ
	25 × 25	970	0.20	0.63	LLS2W101MELA
120	20 × 40	990	0.20	0.69	LLS2W121MELY
	22 × 35	1070	0.20	0.69	LLS2W121MELZ
	25 × 30	1090	0.20	0.69	LLS2W121MELA
	30 × 25	1120	0.20	0.69	LLS2W121MELB
150	22 × 40	1180	0.20	0.77	LLS2W151MELZ
	25 × 30	1250	0.20	0.77	LLS2W151MELA
	30 × 25	1290	0.20	0.77	LLS2W151MELB
180	22 × 45	1320	0.20	0.85	LLS2W181MELZ
	25 × 35	1400	0.20	0.85	LLS2W181MELA
	30 × 30	1450	0.20	0.85	LLS2W181MELB
220	25 × 40	1590	0.20	0.94	LLS2W221MELA
	30 × 30	1640	0.20	0.94	LLS2W221MELB
	35 × 25	1590	0.20	0.94	LLS2W221MELC
270	30 × 35	1890	0.20	1.04	LLS2W271MELB
	35 × 30	1900	0.20	1.04	LLS2W271MELC
330	30 × 40	2120	0.20	1.15	LLS2W331MELB
	35 × 35	2150	0.20	1.15	LLS2W331MELC
390	30 × 45	2350	0.20	1.25	LLS2W391MELB
	35 × 40	2380	0.20	1.25	LLS2W391MELC
470	35 × 45	2680	0.20	1.37	LLS2W471MELC
560	35 × 50	2880	0.20	1.50	LLS2W561MELC

Rated Ripple (mA) at 85°C 120Hz