

LSQ シリーズ  
SERIES

85°C 3000時間品  
Load Life : 85°C 3000 hours

RoHS  
compliance



◆規格表 / SPECIFICATIONS

項目 Items	特 性 Characteristics																																																																											
カテゴリ温度範囲 Category Temperature Range	-40~+85°C	-25~+85°C																																																																										
定格電圧範囲 Rated Voltage Range	10~100Vdc	160~450Vdc																																																																										
静電容量許容差 Capacitance Tolerance	±20% (20°C, 120Hz)																																																																											
漏れ電流 Leakage Current (MAX)	I=0.02CV又は5mAいずれか小なる値以下 (定格電圧印加5分後) I=0.02CV or 5mA whichever is smaller. (After 5 minutes application of rated voltage) I=漏れ電流(μA)      C=静電容量(μF)      V=定格電圧(Vdc) Leakage Current      Capacitance      Rated Voltage																																																																											
損失角の正接 (tanδ) Dissipation Factor (MAX)	<table border="1"> <thead> <tr> <th>Vdc \ φD</th> <th>36</th> <th>51</th> <th>64</th> <th>77</th> <th>90</th> <th>Vdc \ φD</th> <th>36</th> <th>51</th> <th>64</th> <th>77</th> <th>90</th> <th>(20°C, 120Hz)</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>0.75</td> <td>1.0</td> <td>1.3</td> <td>1.5</td> <td>1.5</td> <td>63</td> <td>0.2</td> <td>0.25</td> <td>0.3</td> <td>0.4</td> <td>0.4</td> <td rowspan="6"></td> </tr> <tr> <td>16</td> <td>0.6</td> <td>0.7</td> <td>0.8</td> <td>1.0</td> <td>1.0</td> <td>80</td> <td>0.2</td> <td>0.2</td> <td>0.25</td> <td>0.3</td> <td>0.3</td> </tr> <tr> <td>25</td> <td>0.4</td> <td>0.5</td> <td>0.7</td> <td>0.8</td> <td>0.8</td> <td>100</td> <td>0.15</td> <td>0.2</td> <td>0.25</td> <td>0.25</td> <td>0.25</td> </tr> <tr> <td>35</td> <td>0.3</td> <td>0.5</td> <td>0.6</td> <td>0.7</td> <td>0.7</td> <td>160~250</td> <td>0.15</td> <td>0.15</td> <td>0.2</td> <td>0.2</td> <td>0.2</td> </tr> <tr> <td>50</td> <td>0.25</td> <td>0.3</td> <td>0.5</td> <td>0.6</td> <td>0.6</td> <td>350~450</td> <td>0.2</td> <td>0.2</td> <td>0.25</td> <td>0.25</td> <td>0.25</td> </tr> </tbody> </table>		Vdc \ φD	36	51	64	77	90	Vdc \ φD	36	51	64	77	90	(20°C, 120Hz)	10	0.75	1.0	1.3	1.5	1.5	63	0.2	0.25	0.3	0.4	0.4		16	0.6	0.7	0.8	1.0	1.0	80	0.2	0.2	0.25	0.3	0.3	25	0.4	0.5	0.7	0.8	0.8	100	0.15	0.2	0.25	0.25	0.25	35	0.3	0.5	0.6	0.7	0.7	160~250	0.15	0.15	0.2	0.2	0.2	50	0.25	0.3	0.5	0.6	0.6	350~450	0.2	0.2	0.25	0.25	0.25
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耐 久 性 Endurance	<p>85°C中で3000時間定格電圧(リップル重畳)印加後、下記項目を満足すること。 After applying rated voltage with rated ripple current for 3000 hours at 85°C, the capacitors shall meet the following requirements.</p> <table border="1"> <tr> <td>静電容量変化率 Capacitance Change</td> <td>初期値の±15%以内 Within ±15% of the initial value.</td> </tr> <tr> <td>損失角の正接 Dissipation Factor</td> <td>規格値の175%以下 Not more than 175% of the specified value.</td> </tr> <tr> <td>漏れ電流 Leakage Current</td> <td>規格値以下 Not more than the specified value.</td> </tr> </table>		静電容量変化率 Capacitance Change	初期値の±15%以内 Within ±15% of the initial value.	損失角の正接 Dissipation Factor	規格値の175%以下 Not more than 175% of the specified value.	漏れ電流 Leakage Current	規格値以下 Not more than the specified value.																																																																				
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高温無負荷特性 Shelf Life	<p>85°C中で500時間無負荷放置した後、JIS C 5101-4 4.1項の電圧処理を行い下記を満足すること。 After storage for 500 hours with no voltage applied at 85°C, the capacitors shall be subjected to the voltage treatment in JIS C 5101-4 item 4.1 and shall be meet the following requirements.</p> <table border="1"> <tr> <td>静電容量変化率 Capacitance Change</td> <td>初期値の±15%以内 Within ±15% of the initial value.</td> </tr> <tr> <td>損失角の正接 Dissipation Factor</td> <td>規格値の150%以下 Not more than 150% of the specified value.</td> </tr> <tr> <td>漏れ電流 Leakage Current</td> <td>規格値以下 Not more than the specified value.</td> </tr> </table>		静電容量変化率 Capacitance Change	初期値の±15%以内 Within ±15% of the initial value.	損失角の正接 Dissipation Factor	規格値の150%以下 Not more than 150% of the specified value.	漏れ電流 Leakage Current	規格値以下 Not more than the specified value.																																																																				
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◆リップル電流補正係数 / MULTIPLIER FOR RIPPLE CURRENT

周波数(Hz) Frequency	60(50)	120(100)	300	500	1k	10k≤
10~50Vdc	0.80	1.00	1.03	1.04	1.05	1.08
63~100Vdc	0.80	1.00	1.04	1.05	1.07	1.10
160~450Vdc	0.80	1.00	1.06	1.10	1.13	1.18

◆呼称方法 / PART NUMBER

LSQ          M         D×L  
 定格電圧      シリーズ名      静電容量      静電容量許容差      副記号      バンド記号      ケースサイズ  
 Rated Voltage      Series      Capacitance      Capacitance Tolerance      Option      Clamp Code      Case Size

◆寸法図 / DIMENSIONS

		(mm)						
		φD	W1	W2	W3	W4	W5	F
I type	36	24.0	30.0	3.5	7.0	10	12.7	
	51	34.0	40.0	3.5	6.0	12	21.8	
	64	40.0	45.0	4.5	7.0	12	28.2	
	77	47.0	53.0	4.5	6.0	12	31.4	
Y type	90	54.0	60.0	4.5	6.0	14	31.4	
	51	32.5	37.5	4.5	6.0	12	21.8	
	64	38.0	43.0	4.5	8.0	14	28.2	
	77	44.5	49.0	4.5	7.0	14	31.4	
90	50.8	56.0	4.5	8.0	16	31.4		

◆標準品一覧表 / STANDARD SIZE

Cap(μF) \ Vdc	10		16		25		35		50		63		80	
3300														36×50 2.5
3900														36×50 2.6
4700														36×50 2.8
5600												36×50 3.0		36×63 2.9
6800										36×50 3.3		36×50 3.2		36×83 3.7
8200										36×50 3.7		36×63 3.8		36×83 4.2
10000							36×50 3.6		36×50 4.3		36×83 4.1			36×98 5.0
12000							36×50 3.7		36×63 5.3		36×83 4.4			36×118 5.4
15000							36×50 4.0		36×83 5.5		36×98 5.5			51×83 7.7
18000					36×50 5.0		36×63 4.7		36×83 5.7		36×118 6.2			51×83 7.8
22000					36×63 5.4		36×83 5.6		36×98 6.1		51×83 7.1			51×83 8.0
27000			36×50 5.1		36×83 5.8		36×83 6.2		36×118 6.7		51×83 7.4			51×98 8.7
33000			36×63 5.5		36×83 6.0		36×83 6.3		51×83 7.1		51×98 8.8			51×118 10.5
39000	36×50 5.3		36×83 7.0		36×83 6.7		36×98 7.6		51×83 7.4		51×118 10.0			64×99 12.1
47000	36×63 6.0		36×83 7.3		36×98 8.0		36×118 8.7		51×98 8.7		64×99 11.9			64×99 14.4
56000	36×83 6.3		36×98 7.6		36×118 8.4		51×83 10.0		51×98 9.8		64×99 12.6			64×119 15.0
68000	36×83 7.9		36×98 10.3		51×83 9.3		51×83 10.8		51×118 12.0		64×119 15.0			64×139 16.8
82000	36×83 8.4		36×118 10.5		51×83 10.0		51×98 12.0		64×99 12.3		77×101 16.4			77×121 19.4
100000	36×118 9.3		51×83 10.9		51×98 12.0		51×118 13.6		64×119 14.2		77×121 18.9			77×141 21.5
120000	51×83 10.0		51×98 11.1		51×118 12.9		64×99 13.8		64×119 16.0		77×141 21.6			90×141 22.3
150000	51×83 11.0		51×98 12.6		64×99 15.3		64×99 14.6		77×121 18.6		90×141 26.0			
180000	51×98 12.1		51×118 13.2		64×99 15.5		64×119 16.7		77×141 19.5					
220000	51×98 14.0		64×99 14.7		64×119 18.0		77×101 17.4		90×141 23.3					
270000	51×118 14.2		64×119 15.4		77×101 18.8		77×141 23.1		90×141 24.8					
330000	64×99 17.3		64×139 18.3		77×121 23.2		77×151 25.9							
390000	64×119 18.0		77×121 19.0		77×141 23.5		90×141 26.5							
470000	64×139 19.3		77×141 22.0		90×141 24.7		90×151 28.3							
560000	77×121 20.1		77×151 23.0		90×141 26.2									
680000	77×141 24.0													

Cap(μF) \ Vdc	100		160		200		250		350		400		450	
270											36×50 1.3		36×50 1.6	
330											36×50 1.7		36×63 1.8	
390										36×50 1.9		36×63 1.8		36×83 2.2
470							36×50 1.6		36×63 2.1		36×83 2.3		36×83 2.4	
560							36×50 1.6		36×83 2.4		36×83 2.7		36×98 2.8	
680					36×50 1.6		36×50 1.7		36×83 2.9		36×98 2.9		36×118 3.1	
820					36×50 1.7		36×63 1.8		36×98 3.4		36×98 3.4		51×83 3.6	
1000					36×63 2.2		36×83 2.4		36×98 3.8		36×118 3.9		51×83 4.0	
1200			36×50 2.3		36×63 2.3		36×83 2.4		36×118 4.2		51×83 4.2		51×98 4.8	
1500			36×63 3.2		36×83 2.9		36×98 3.1		51×83 4.7		51×98 4.8		51×118 5.7	
1800			36×83 3.4		36×83 2.9		36×118 3.4		51×98 6.3		51×98 5.7		64×99 6.5	
2200	36×50 2.5		36×83 3.6		36×98 3.6		51×83 3.9		51×98 6.4		51×118 7.0		64×99 7.2	
2700	36×50 2.7		36×98 3.8		36×118 4.0		51×83 4.0		64×99 8.8		64×99 7.9		64×119 8.7	
3300	36×50 3.2		36×118 4.7		51×83 4.6		51×98 5.4		64×99 8.8		64×119 9.5		77×121 10.5	
3900	36×63 3.3		51×83 5.3		51×83 4.7		51×118 6.0		64×119 10.3		77×101 10.7		77×121 12.0	
4700	36×83 3.5		51×83 5.6		51×98 7.1		64×99 7.3		77×101 12.0		77×121 12.8		77×141 13.3	
5600	36×83 3.8		51×98 6.4		51×118 8.3		64×99 7.3		77×121 12.7		77×141 14.5		90×141 15.8	
6800	36×98 4.5		51×98 7.5		64×99 9.5		64×119 8.9		77×141 16.0		77×151 17.5		90×151 18.7	
8200	36×118 6.0		51×118 8.1		64×99 10.0		77×101 8.9		90×141 19.0		90×141 18.0			
10000	36×118 6.3		64×99 9.9		64×119 11.1		77×121 11.8		90×141 20.0		90×151 20.5			
12000	51×83 6.6		64×119 10.8		77×101 11.6		77×141 13.1							
15000	51×83 8.5		77×101 12.7		77×121 12.9		90×141 16.5							
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56000	77×141 16.2													
68000	77×151 18.3													
82000	90×141 20.1													
100000	90×141 21.0													

↑ リプル電流 Ripple Current (A r.m.s./120Hz, 85°C)  
↑ ケースサイズ Case Size φD×L(mm)

◆ネジの締め付けトルクと許容電流値 / Tightening torque of bolt and Permissible current of terminal

取り付けバンドネジ Clamp Bolt	推奨締め付けトルク Recommended Tightening torque
M3	0.6 [N·m]
M4	1.3 [N·m]

端子 Terminal	推奨締め付けトルク(許容値) Recommended Tightening torque (Permissible Range)	端子許容電流 Permissible Current of Terminal
M5	2.2(1.5~3.2) [N·m]	60 [A r.m.s.]