

- Load life of 2000 hours at 85°C
- High ripple current
- Computers, communication powers, and inverters



■ SPECIFICATIONS

Item	Characteristics								
Operating Temperature Range (°C)	-40~+85 (315V~450V, -25~+85)								
Capacitance Tolerance (25°C, 120Hz)	± 20%								
Leakage current (μ A)	0.02CV or 5mA whichever is smaller (at 25°C, after 5 minutes) C: Nominal Capacitance (μ F), V: Rated Voltage (V)								
Dissipation Factor (25°C, 120Hz)	See STANDARD RATINGS TABLE								
Load Life (+85°C)	<table border="1"> <tr> <td>Time</td> <td>2000 hours</td> </tr> <tr> <td>Leakage current</td> <td>Not more than the specified value</td> </tr> <tr> <td>Capacitance change</td> <td>Within ±20% of the initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 200% of the specified value</td> </tr> </table>	Time	2000 hours	Leakage current	Not more than the specified value	Capacitance change	Within ±20% of the initial value	Dissipation Factor	Not more than 200% of the specified value
	Time	2000 hours							
	Leakage current	Not more than the specified value							
	Capacitance change	Within ±20% of the initial value							
Dissipation Factor	Not more than 200% of the specified value								
Shelf Life (+85°C)	<table border="1"> <tr> <td>Time</td> <td>1000 hours</td> </tr> <tr> <td>Leakage current</td> <td>Not more than the specified value</td> </tr> <tr> <td>Capacitance change</td> <td>Within ±20% of the initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 200% of the specified value</td> </tr> </table>	Time	1000 hours	Leakage current	Not more than the specified value	Capacitance change	Within ±20% of the initial value	Dissipation Factor	Not more than 200% of the specified value
	Time	1000 hours							
	Leakage current	Not more than the specified value							
	Capacitance change	Within ±20% of the initial value							
Dissipation Factor	Not more than 200% of the specified value								
*After test: (V) to be applied for 60 minutes, 24 to 48 hours before measurement.									

■ DIMENSIONS

mm

	ΦD	36	51	64	77	90
	F	12.7	22	28.6	32	32

■ MULTIPLIER FOR RIPPLER CURRENT

Frequency coefficient									Temperature coefficient				
Rated Volts (V)	Frequency (Hz)								Rated Voltage (V)	Temperature (°C)			
	50	120	300	1K	3K	5K	10K	20K		+40	+55	+70	+85
10~50	0.95	1.00	1.04	1.10	1.12	1.13	1.15	1.15	10~100	2.1	1.8	1.5	1.0
63~100	0.95	1.00	1.06	1.16	1.20	1.25	1.30	1.36	160~450	2.6	2.2	1.7	1.0
160~200	0.90	1.00	1.10	1.20	1.35	1.40	1.50	1.55					
250~450	0.80	1.00	1.10	1.20	1.35	1.40	1.50	1.55					

Rated Voltage (V.DC)	Surge Voltage (V.DC)	Rated Capacitance (μ F)	Dissipation Factor MAX	Ripple Current 85°C 120Hz	Size Φ DxL
10	13	33000	0.80	4.3	36x53
		39000	0.80	4.7	36x53
		47000	0.80	5.2	36x65
		56000	0.80	6.1	36x83
		68000	0.80	6.7	36x83
		82000	0.80	7.7	36x100
		100000	0.80	8.8	36x100
		120000	0.80	10.0	36x121
		150000	1.00	10.8	36x121
		180000	1.00	12.0	51x96
		220000	1.50	11.2	51x121
		270000	1.50	12.8	51x121
		330000	1.50	15.3	64x96
		390000	1.50	17.3	64x115
		470000	2.00	16.7	64x130
		560000	2.00	19.0	77x115
		680000	2.00	21.7	77x130
820000	2.00	24.7	77x155		
16	20	22000	0.60	4.1	36x53
		27000	0.60	4.5	36x53
		33000	0.60	5.0	36x53
		39000	0.60	5.9	36x65
		47000	0.60	6.4	36x83
		56000	0.60	7.3	36x83
		68000	0.60	8.4	36x100
		82000	0.80	8.3	36x100
		100000	0.80	9.5	36x121
		120000	0.80	10.9	36x121
		150000	1.00	11.3	51x96
		180000	1.00	12.8	51x115
		220000	1.00	15.3	51x130
		270000	1.00	17.6	64x96
		330000	1.50	16.8	64x115
		390000	1.50	18.3	64x130
		470000	1.50	21.3	77x115
560000	1.50	23.6	77x130		
680000	1.50	27.6	90x155		
820000	2.00	27.1	90x157		
25	32	15000	0.50	3.7	36x53

Rated Voltage (V.DC)	Surge Voltage (V.DC)	Rated Capacitance (μ F)	Dissipation Factor MAX	Ripple Current 85°C 120Hz	Size Φ DxL (mm)
25	32	18000	0.50	4.1	36x53
		22000	0.50	4.5	36x53
		27000	0.50	5.0	36x65
		33000	0.50	5.0	36x83
		39000	0.50	6.7	36x83
		47000	0.50	7.7	36x100
		56000	0.60	7.9	36x100
		68000	0.60	9.1	36x121
		82000	0.60	10.4	36x121
		100000	0.80	10.3	51x96
		120000	0.80	11.7	51x115
		150000	0.80	14.1	51x130
		180000	0.80	15.7	64x96
		220000	1.00	16.1	64x115
		270000	1.00	18.6	64x130
		330000	1.00	21.9	64x155
		390000	1.20	22.0	77x121
		470000	1.20	25.6	77x155
560000	1.20	27.9	90x131		
680000	1.20	32.5	90x157		
35	44	10000	0.40	3.4	36x53
		12000	0.40	3.7	36x53
		15000	0.40	4.2	36x65
		18000	0.40	4.9	36x83
		22000	0.40	5.7	36x83
		27000	0.40	6.3	36x
		33000	0.40	7.2	36x100
		39000	0.50	7.3	36x121
		47000	0.50	8.7	51x96
		56000	0.60	8.6	51x96
		68000	0.60	9.8	51x115
		82000	0.60	11.6	64x96
		100000	0.60	13.3	64x115
		120000	0.80	14.8	64x121
		150000	0.80	14.9	64x130
		180000	0.80	17.0	77x115
		220000	0.80	20.0	77x130
		270000	0.100	20.3	77x155
330000	0.100	23.5	90x131		

Rated Voltage (V.DC)	Surge Voltage (V.DC)	Rated Capacitance (μ F)	Dissipation Factor MAX	Ripple Current 85°C 120Hz	Size Φ DxL (mm)
35	44	390000	0.100	26.4	90x157
		470000	0.100	29.6	90x157
50	63	5600	0.30	3.0	36x53
		6800	0.30	3.3	36x53
		8200	0.30	3.6	36x53
		10000	0.30	4.0	36x65
		12000	0.30	4.7	36x83
		15000	0.30	5.5	36x83
		18000	0.30	6.2	36x100
		22200	0.40	6.3	36x121
		27000	0.40	7.1	36x121
		33000	0.40	8.2	51x96
		39000	0.50	8.1	51x96
		47000	0.50	9.3	51x115
		56000	0.50	10.5	64x96
		68000	0.50	12.0	64x96
		82000	0.50	13.7	64x115
		100000	0.60	14.7	77x115
		120000	0.60	16.7	77x121
		150000	0.60	19.3	77x130
		180000	0.60	21.9	77x155
220000	0.60	21.4	90x131		
270000	0.60	24.6	90x157		
63	79	3900	0.25	2.7	36x53
		4700	0.25	3.0	36x53
		5600	0.25	3.3	36x53
		6800	0.25	3.6	36x65
		8200	0.25	4.3	36x83
		10000	0.25	4.9	36x83
		12000	0.25	5.6	36x100
		15000	0.30	5.9	36x100
		18000	0.30	6.7	36x121
		22000	0.30	7.8	36x121
		27000	0.40	7.4	51x96
		33000	0.40	8.4	51x96
		39000	0.40	9.5	51x115
		47000	0.40	11.3	51x130
56000	0.40	12.8	64x115		

Rated Voltage (V.DC)	Surge Voltage (V.DC)	Rated Capacitance (μ F)	Dissipation Factor MAX	Ripple Current 85°C 120Hz	Size Φ DxL (mm)
63	79	68000	0.50	12.7	64x121
		82000	0.50	14.5	64x130
		100000	0.50	16.7	77x115
		120000	0.50	18.9	77x130
		150000	0.50	22.4	77x155
		180000	0.60	22.4	90x131
		220000	0.60	26.2	90x157
80	100	3300	0.25	2.5	36x53
		3900	0.25	2.8	36x53
		4700	0.25	3.0	36x65
		5600	0.25	3.6	36x83
		6800	0.25	3.9	36x83
		8200	0.25	4.5	36x83
		10000	0.25	5.2	36x100
		12000	0.25	5.9	36x100
		15000	0.25	6.8	36x121
		18000	0.25	7.8	36x121
		22000	0.30	8.0	51x96
		27000	0.30	9.2	51x96
		33000	0.30	10.5	51x115
		39000	0.30	12.0	51x130
		47000	0.30	13.6	64x115
		56000	0.40	13.4	64x130
		68000	0.40	15.4	77x115
		82000	0.40	17.5	77x130
		100000	0.40	20.5	77x155
		120000	0.40	22.4	90x131
150000	0.40	26.5	90x157		
100	125	1800	0.25	1.9	36x53
		2200	0.25	2.1	36x53
		2700	0.25	2.3	36x53
		3300	0.25	2.6	36x65
		3900	0.25	3.0	36x83
		4700	0.25	3.5	36x83
		5600	0.25	3.9	36x100
		6800	0.25	4.5	36x100
		8200	0.25	5.1	36x121
		10000	0.25	5.9	36x121

Rated Voltage (V.DC)	Surge Voltage (V.DC)	Rated Capacitance (μ F)	Dissipation Factor MAX	Ripple Current 85°C 120Hz	Size Φ DxL
100	125	12000	0.25	6.4	51x75
		15000	0.25	7.0	51x96
		18000	0.25	8.3	51x115
		22000	0.25	10.0	51x130
		27000	0.25	11.5	64x115
		33000	0.25	11.9	64x130
		39000	0.25	13.4	77x115
		47000	0.35	14.2	77x130
		56000	0.35	16.0	77x155
		68000	0.35	18.8	90x131
		82000	0.35	20.5	90x157
		100000	0.35	24.0	90x171
160	200	3300	0.25	5.18	36x121
		3900	0.25	5.33	51x75
		4700	0.25	5.85	51x75
		5600	0.25	7.03	51x96
		6800	0.25	7.77	51x96
		8200	0.25	9.14	51x115
		10000	0.25	10.36	64x96
		12000	0.25	11.32	64x96
		15000	0.25	14.28	64x130
		18000	0.25	15.61	64x130
		22000	0.25	18.28	77x130
		27000	0.25	20.24	77x130
		33000	0.25	23.75	90x131
		39000	0.25	27.86	90x157
200	250	2200	0.25	3.92	36x100
		2700	0.25	4.70	36x121
		3300	0.25	4.92	51x75
		3900	0.25	5.33	51x96
		4700	0.25	6.44	51x115
		5600	0.25	7.55	51x130
		6800	0.25	8.77	64x96
		8200	0.25	9.40	64x96
		10000	0.25	10.36	77x96
		12000	0.25	12.06	77x96
		15000	0.25	14.43	77x130
		18000	0.25	16.50	77x155
		22000	0.25	19.61	90x131

Rated Voltage (V.DC)	Surge Voltage (V.DC)	Rated Capacitance (μ F)	Dissipation Factor MAX	Ripple Current 85°C 120Hz	Size Φ DxL (mm)
200	250	27000	0.25	21.51	90x157
		33000	0.25	25.53	36x100
250	300	1500	0.25	3.22	36x100
		1800	0.25	3.52	51x75
		2200	0.25	4.00	51x75
		2700	0.25	4.44	51x96
		3300	0.25	5.40	51x115
		3900	0.25	6.29	64x96
		4700	0.25	7.10	64x96
		5600	0.25	7.77	64x115
		6800	0.25	9.14	64x115
		8200	0.25	10.03	64x130
		10000	0.25	11.66	77x115
		12000	0.25	12.88	77x130
		15000	0.25	15.10	77x155
		18000	0.25	17.69	90x157
		22000	0.25	20.91	36x53
350	400	390	0.20	1.67	36x53
		470	0.20	2.15	36x83
		560	0.20	2.37	36x83
		680	0.20	2.59	36x83
		820	0.20	3.07	36x100
		1000	0.20	3.41	36x100
		1200	0.20	3.81	51x75
		1500	0.20	4.26	51x75
		1800	0.20	5.14	51x96
		2200	0.20	5.70	51x96
		2700	0.20	7.14	51x130
		3300	0.20	7.92	51x130
		3900	0.20	9.00	64x115
		4700	0.20	10.33	64x130
		5600	0.20	11.36	77x115
		6800	0.20	13.10	77x130
		12000	0.20	20.02	90x196
		15000	0.20	24.50	90x236
18000	0.20	28.83	36x53		
400	450	330	0.20	1.52	36x83
		390	0.20	1.96	36x83
		470	0.20	2.15	36x83

Rated Voltage (V.DC)	Surge Voltage (V.DC)	Rated Capacitance (μ F)	Dissipation Factor MAX	Ripple Current 85°C 120Hz	Size Φ DxL
400	450	560	0.20	2.37	36x100
		680	0.20	2.82	36x100
		820	0.20	3.07	36x100
		1000	0.20	3.48	51x75
		1200	0.20	3.82	51x75
		1500	0.20	4.70	51x96
		1800	0.20	5.15	51x96
		2200	0.20	6.44	64x96
		2700	0.20	6.96	64x96
		3300	0.20	8.22	64x115
		3900	0.20	9.40	64x130
		4700	0.20	10.44	77x115
		5600	0.20	11.92	77x130
		6800	0.20	14.06	77x155
		8200	0.20	16.43	90x157
		10000	0.20	18.28	90x157
		12000	0.20	21.84	90x196
15000	0.20	26.31	90x236		
450	500	270	0.20	1.37	36x53
		330	0.20	1.82	36x83
		390	0.20	1.96	33x83
		470	0.20	2.15	36x83
		560	0.20	2.55	36x100
		680	0.20	2.81	36x100
		820	0.20	3.18	51x75
		1000	0.20	3.48	51x75
		1200	0.20	4.22	51x96
		1500	0.20	5.07	51x115
		1800	0.20	5.85	51x130
		2200	0.20	6.29	64x96
		2700	0.20	7.48	64x115
		3300	0.20	8.66	64x130
		3900	0.20	9.47	77x115
		4700	0.20	10.88	77x130
		5600	0.20	12.80	77x155
6800	0.20	15.00	90x157		
8200	0.20	16.50	90x157		
10000	0.20	20.00	90x196		
12000	0.20	23.61	90x236		