

CN3

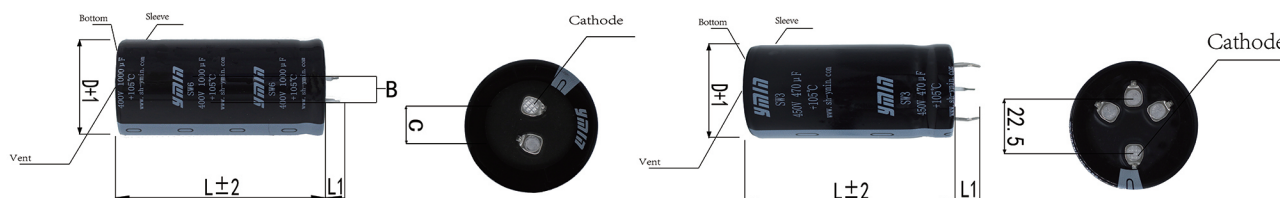
- ◆ 85°C 3000 Hours
- ◆ High Reliability, Super Low Temperature
- ◆ Low LC, Low Consumption
- ◆ RoHS Compliant



■ Specification

Items	Characteristics	
Temperature Range(°C)	-40°C ~ +85°C	
Voltage Range(V)	350 ~ 500V.DC	
Capacitance Range(μF)	47 ~ 1000μF (20°C 120Hz)	
Capacitance Tolerance	±20%	
Leakage Current(mA)	≤0.94mA or $3\sqrt{CV}$, 5 minutes test @20°C	
Maximum DF(20°C)	0.15 (20°C, 120HZ)	
Temperature Characteristics(120Hz)	$C(-25^{\circ}\text{C})/C(+20^{\circ}\text{C})\geq 0.8$; $C(-40^{\circ}\text{C})/C(+20^{\circ}\text{C})\geq 0.65$	
Impedance Characteristics	$Z(-25^{\circ}\text{C})/Z(+20^{\circ}\text{C})\leq 5$; $Z(-40^{\circ}\text{C})/Z(+20^{\circ}\text{C})\leq 8$	
Insulating Resistance	The value measured by applying DC 500V insulation resistance tester between all terminals and snap ring with insulating sleeve $\geq 100\text{m}\Omega$.	
Insulating Voltage	Apply AC 2000V between all terminals and snap ring with insulating sleeve for 1 minute and no abnormality appears.	
Endurance	Apply rated ripple current on capacitor with voltage not more than rated voltage under 85°C environment and apply rated voltage for 3000hours, then recover to 20°C environment and the test results should satisfy the requirements as below.	
	Capacitance change rate (ΔC)	≤initial value ±20%
	DF (tgδ)	≤200% of initial specification value
	Leakage current(LC)	≤initial specification value
Shelf Life	Capacitor kept in 85°C environment for 1000 hours, then tested in 20°C environment and the test result should satisfy the requirements as below.	
	Capacitance change rate (ΔC)	≤initial value ±15%
	DF (tgδ)	≤150% of initial specification value
	Leakage current(LC)	≤initial specification value
(Voltage pretreatment should be done before test: apply rated voltage on both ends of capacitor through a resistor of about 1000Ω for 1 Hrs, then discharge electricity through 1Ω / V resistor after pretreatment. Place under normal temperature for 24hrs after total discharging, then starts test.)		

■ Standard Size (Unit: mm)



ΦD	Φ22	Φ25	Φ30	Φ35	Φ40
B	11.6	11.8	11.8	11.8	12.25
C	8.4	10	10	10	10

■ Ripple Current Correction Factor

① Frequency Correction Coefficient Of Rated Ripple Current

Frequency(Hz)	50Hz	120Hz	500Hz	1KHz	≥10KHz
Coefficient	0.8	1.0	1.2	1.25	1.40

② Temperature Correction Coefficient Of Rated Ripple Current

Environment Temperature(°C)	40°C	60°C	85°C
Correction Factor	1.7	1.4	1.0

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■ Standard Size

Rated Voltage (Surge voltage) (V)	350(400)				400(450)			
	Items Capacitance (μ F)	Size D×L(mm)	Ripple Current (40°C, 120Hz) Arms	Ripple Current (85°C, 120Hz) Arms	ESR (Max, m Ω / 120Hz, 20°C)	Size D×L(mm)	Ripple Current (40°C, 120Hz) Arms	Ripple Current (85°C, 120Hz) Arms
68					22×20	1.00	0.59	2535.56
82	22×20	1.19	0.70	1940.91	22×25	1.19	0.70	2102.66
82					25×20	1.18	0.69	2102.66
100					22×25	1.31	0.77	1724.18
100					25×25	1.41	0.83	1724.18
120	22×25	1.54	0.91	1326.29	22×30	1.54	0.90	1436.82
120	25×25	1.66	0.97	1326.29	25×25	1.53	0.90	1436.82
120					30×20	1.57	0.92	1436.82
150	22×30	1.83	1.08	1061.03	22×35	1.81	1.07	1149.45
150	25×25	1.83	1.07	1061.03	25×30	1.82	1.07	1149.45
150	30×20	1.87	1.10	1061.03	30×25	1.88	1.11	1149.45
180	22×30	1.98	1.17	884.19	22×40	2.08	1.23	957.88
180	25×25	1.98	1.16	884.19	25×30	1.97	1.16	957.88
180	30×20	2.02	1.19	884.19	30×25	2.04	1.20	957.88
180					35×20	2.07	1.22	957.88
220	22×35	2.31	1.36	723.43	22×45	2.39	1.41	783.72
220	25×30	2.32	1.36	723.43	25×35	2.30	1.35	783.72
220	30×25	2.39	1.41	723.43	30×30	2.39	1.41	783.72
220	35×20	2.42	1.42	723.43	35×20	2.25	1.33	783.72
270	22×40	2.67	1.57	589.46	22×50	2.74	1.61	638.58
270	25×35	2.70	1.59	589.46	25×40	2.66	1.56	638.58
270	30×25	2.61	1.54	589.46	30×30	2.61	1.54	638.58
270	35×20	2.64	1.55	589.46	35×25	2.67	1.57	638.58
330	22×45	3.06	1.80	482.29	25×45	3.06	1.80	522.48
330	25×40	3.11	1.83	482.29	30×35	3.05	1.79	522.48
330	30×30	3.06	1.80	482.29	35×30	3.13	1.84	522.48
330	35×25	3.12	1.83	482.29				
390	25×45	3.52	2.07	408.09	25×50	3.45	2.03	442.10
390	30×35	3.50	2.06	408.09	30×40	3.46	2.03	442.10
390	35×30	3.59	2.11	408.09	35×35	3.57	2.10	442.10
470	25×50	4.00	2.36	338.63	30×45	3.97	2.33	366.85
470	30×35	3.80	2.23	338.63	35×35	3.90	2.29	366.85
470	35×30	3.90	2.30	338.63				
560	30×40	4.35	2.56	284.21	30×50	4.46	2.62	307.89
560	35×35	4.50	2.65	284.21	35×40	4.44	2.61	307.89
680	30×50	5.24	3.08	234.05	35×50	5.30	3.12	253.56
680	35×40	5.20	3.06	234.05				
820	35×45	5.97	3.51	194.09	35×55	5.93	3.49	210.27
1000	35×50	6.87	4.04	159.15	35×60	6.69	3.93	172.42

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■ Standard Size

Rated Voltage (Surge voltage) (V)	450(500)				500(550)				
	Items Capacitance (μ F)	Size D×L(mm)	Ripple Current (40°C, 120Hz) Arms	Ripple Current (85°C, 120Hz) Arms	ESR (Max, m Ω / 120Hz, 20°C)	Size D×L(mm)	Ripple Current (40°C, 120Hz) Arms	Ripple Current (85°C, 120Hz) Arms	ESR (Max, m Ω / 120Hz, 20°C)
47		22×20	0.77	0.45	3950.65	22×25	0.73	0.43	4232.84
56		22×20	0.84	0.49	3315.73	22×25	0.80	0.47	3552.57
68		22×25	1.01	0.59	2730.60	22×30	0.95	0.56	2925.64
68		25×20	1.00	0.59	2730.60	25×25	0.94	0.56	2925.64
82		22×25	1.10	0.65	2264.40	22×30	1.03	0.61	2426.14
82		25×20	1.09	0.64	2264.40	25×25	1.03	0.61	2426.14
82		30×20	1.21	0.71	2264.40	30×20	1.06	0.62	2426.14
100		22×30	1.30	0.76	1856.81	22×35	1.21	0.71	1989.44
100		25×25	1.30	0.76	1856.81	25×30	1.22	0.72	1989.44
100		30×20	1.33	0.78	1856.81	30×25	1.26	0.74	1989.44
120		22×35	1.51	0.89	1547.34	22×40	1.40	0.82	1657.86
120		25×30	1.52	0.89	1547.34	25×35	1.41	0.83	1657.86
120		30×25	1.57	0.92	1547.34	30×25	1.37	0.81	1657.86
120		35×20	1.59	0.93	1547.34	35×20	1.39	0.82	1657.86
150		22×40	1.76	1.04	1237.87	22×45	1.63	0.96	1326.29
150		25×30	1.67	0.98	1237.87	25×35	1.56	0.92	1326.29
150		30×25	1.73	1.02	1237.87	30×30	1.63	0.96	1326.29
150		35×20	1.75	1.03	1237.87	35×25	1.67	0.98	1326.29
180		22×45	2.01	1.18	1031.56	22×50	1.85	1.09	1105.24
180		25×35	1.93	1.14	1031.56	25×40	1.80	1.06	1105.24
180		30×30	2.01	1.18	1031.56	30×35	1.88	1.11	1105.24
180		35×25	2.06	1.21	1031.56	35×25	1.81	1.06	1105.24
220		22×50	2.30	1.36	844.00	22×60	2.20	1.30	904.29
220		25×40	2.24	1.32	844.00	25×50	2.17	1.28	904.29
220		30×30	2.20	1.29	844.00	30×35	2.06	1.21	904.29
220		35×25	2.25	1.32	844.00	35×30	2.12	1.25	904.29
270		25×45	2.59	1.52	687.71	25×55	2.50	1.47	736.83
270		30×35	2.57	1.51	687.71	30×40	2.40	1.41	736.83
270		35×30	2.64	1.56	687.71	35×35	2.48	1.46	736.83
330		25×50	2.97	1.75	562.67	25×65	2.96	1.74	602.86
330		30×40	2.98	1.75	562.67	30×50	2.90	1.71	602.86
330		35×35	3.08	1.81	562.67	35×40	2.88	1.69	602.86
390		30×45	3.39	1.99	476.10	30×55	3.28	1.93	510.11
390		35×40	3.52	2.07	476.10	35×45	3.27	1.93	510.11
470		30×50	3.87	2.28	395.07	35×50	3.75	2.21	423.28
470		35×45	4.03	2.37	395.07				
560		35×50	4.58	2.69	331.57	35×55	4.23	2.49	355.26
680		35×55	5.10	3.00	273.06	35×65	4.96	2.92	292.56
820		35×60	5.93	3.49	226.44	35×65	5.72	3.37	242.61
1000		35×75	7.08	4.16	185.68	35×75	3.20	1.88	198.94