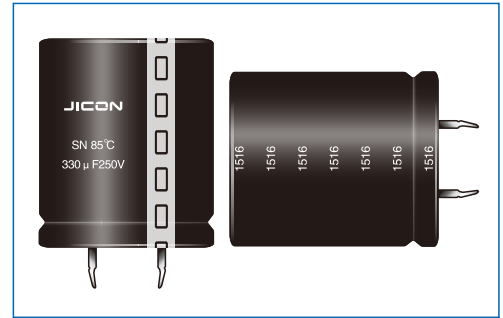


# SN 系列 SERIES

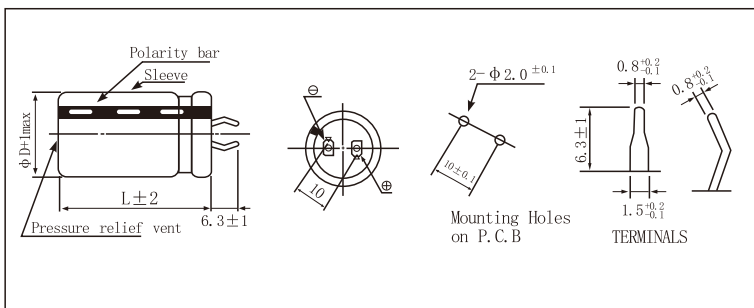
- Small Size
- Long Useful life ( 85°C 3000h)
- High Ripple Current
- Industrial Power Supplies and Inverters



## ◆ SPECIFICATION

Items	Characteristics												
Operating Temperature Range(°C)	-25 ~ +85°C												
Voltage range (V)	160~450V												
Capacitance Range (μF)	68~2200 μF												
Capacitance Tolerance	±20% (at 20°C, 120Hz)												
Dissipation Factor(Tan δ)	<table border="1"> <tr> <td>U<sub>R</sub> (V)</td> <td>160</td> <td>200</td> <td>250</td> <td>400</td> <td>450</td> </tr> <tr> <td>tg δ</td> <td colspan="3">0.15</td> <td colspan="2">0.2</td> </tr> </table>	U <sub>R</sub> (V)	160	200	250	400	450	tg δ	0.15			0.2	
	U <sub>R</sub> (V)	160	200	250	400	450							
tg δ	0.15			0.2									
<p>▲For capacitance of more than 1000μF, add 0.02 for every increase of 1000μF. ▲(at 20°C, 120Hz)</p>													
Low Temperature Characteristics	<table border="1"> <tr> <td>U<sub>R</sub> (V)</td> <td>160~450</td> </tr> <tr> <td>Z-25°C/Z+20°C</td> <td>4</td> </tr> </table>	U <sub>R</sub> (V)	160~450	Z-25°C/Z+20°C	4								
	U <sub>R</sub> (V)	160~450											
Z-25°C/Z+20°C	4												
(at 120Hz)													
leakage current (μA)	<p>I=0.01C<sub>R</sub>U<sub>R</sub> or 1.5mA whichever is smaller. (at20°C,After 5 minutes application of rated voltage)</p> <p>I=Leakage Current    U<sub>R</sub>=Rated Voltage    C<sub>R</sub>=Rated Capacitance</p>												
Load Life	<p>The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated rippled current is applied for 3000 hours at 85°C</p> <table border="1"> <tr> <td>Capacitance change</td> <td>Within ±20%initial value</td> </tr> <tr> <td>D. F. (Tan δ)</td> <td>Not more than200% of specified value</td> </tr> <tr> <td>leakage current</td> <td>Not more than specified value</td> </tr> </table>	Capacitance change	Within ±20%initial value	D. F. (Tan δ)	Not more than200% of specified value	leakage current	Not more than specified value						
Capacitance change	Within ±20%initial value												
D. F. (Tan δ)	Not more than200% of specified value												
leakage current	Not more than specified value												
Shelf Life	<p>After leaving capacitors under no load at 85° C for 1000 hours, they meet the characteristic requirements listed at right.</p> <table border="1"> <tr> <td>Capacitance change</td> <td>Within ±20%initial value</td> </tr> <tr> <td>D. F. (Tan δ)</td> <td>Not more than 200% of specified value</td> </tr> <tr> <td>leakage current</td> <td>Not more than 200% of specified value</td> </tr> </table>	Capacitance change	Within ±20%initial value	D. F. (Tan δ)	Not more than 200% of specified value	leakage current	Not more than 200% of specified value						
	Capacitance change	Within ±20%initial value											
	D. F. (Tan δ)	Not more than 200% of specified value											
	leakage current	Not more than 200% of specified value											

## ◆ DIMENSIONS(mm)



## ◆ Frequency Coefficient

Frequency	50/60	120	1k	10k	100k
Coefficiency	0.87	1.00	1.20	1.35	1.40

## ◆ Temperature Coefficient

Temperature(°C)	+40	+55	+70	+85
Coefficient	1.7	1.5	1.3	1.0

**SN**系列  
SERIES

◆ STANDARD RATINGS

UR (Surge Voltage) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 85°C 120Hz	Size φD×L	
(V)	(μF)	(mΩ)	(mΩ)	(A rms)	(mm)	
160V (200) 2C	330	603	355	1.5	22×25	
	390	510	300	1.6	25×25	
	470	424	245	1.8	22×35	
	560		355	215	2.1	22×35
			355	215	2.2	25×30
			355	215	2.1	30×25
	680		293	178	2.6	22×40
			293	178	2.5	25×35
	820		243	145	2.8	22×50
			243	145	2.7	25×40
			243	145	2.9	30×30
			243	145	2.8	35×25
	1000		199	115	3.3	25×45
			199	115	3.4	30×35
			199	115	3.3	35×30
	1200		166	95	3.7	25×50
		166	95	3.8	30×40	
		166	95	3.6	35×35	
1500		133	75	4.4	30×45	
		133	75	4.3	35×40	
1800	111	75	4.4	35×45		
2200	91	58	5.9	35×50		
200 (250) 2D	220	905	375	1.2	22×25	
	330		603	258	1.5	22×30
			603	258	1.6	25×25
	390		510	221	1.8	22×35
			510	221	1.8	25×30
	470		424	175	2.0	22×40
			424	175	2.1	30×25
	560		355	150	2.2	22×45
			355	150	2.2	25×35
			355	150	2.3	30×30
			355	150	2.2	35×25
	680		293	128	2.6	25×40
			293	128	2.4	30×30
	820		243	105	2.7	25×50
			243	105	2.8	30×40
			243	105	2.6	35×30
1000		199	80	3.4	30×40	
		199	80	3.6	35×35	
1200		166	70	3.8	30×50	
		166	70	3.7	35×40	
1500	133	55	4.7	35×50		
250 (300) 2E	150	1327	550	0.92	22×25	
	180	1106	470	0.98	22×25	
	220		905	370	1.25	22×30
			905	370	1.25	25×25
	270		737	370	1.25	22×35
			603	250	1.64	22×40
			603	255	1.64	25×30
	330	603	255	1.64	30×25	

**SN** 系列  
SERIES

◆ STANDARD RATINGS

UR (Surge Voltage) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 85°C 120Hz	Size ΦD×L
(V)	(μF)	(mΩ)	(mΩ)	(A rms)	(mm)
250 (300) 2E	390	510	220	1.9	22×45
		510	220	1.9	25×35
	470	424	175	2.2	22×50
		424	175	2.2	25×40
		424	175	2.2	30×30
		424	175	2.2	35×25
		424	175	2.2	35×25
	560	355	150	2.4	25×45
		355	150	2.4	30×35
	680	293	123	2.8	30×40
		293	123	2.8	35×30
	820	243	105	3.2	30×45
		243	105	3.2	35×35
1000	199	80	3.7	35×40	
1200	166	70	4.1	35×45	
1500	133	60	4.6	35×50	
400 (450) 2G	68	3902	1561	0.62	22×25
	100	2654	1061	0.81	22×30
		2654	1061	0.83	25×25
	120	2211	884	0.93	22×35
	150	1769	707	1.2	22×40
		1769	707	1.2	25×30
		1769	707	1.2	30×25
	180	1474	589	1.3	22×45
		1474	589	1.3	25×35
		1474	589	1.3	30×30
		1474	589	1.3	35×25
	220	1206	482	1.5	22×50
		1206	482	1.5	25×40
		1206	482	1.5	30×35
	270	982	393	1.7	25×45
		982	393	1.7	30×40
		982	393	1.7	35×30
	330	804	321	2.1	30×45
		804	321	2.1	35×35
	390	680	272	2.3	30×50
680		272	2.3	35×40	
470	564	225	2.7	35×45	
560	474	189	3	35×50	
450V (500) 2W	47	5646	2800	0.52	22×25
	68	3902	1940	0.66	22×30
		3902	1940	0.66	25×25
	100	2653	1310	0.90	22×35
		2653	1310	0.90	25×30
		2653	1310	0.90	30×25
	120	2211	910	1.10	22×40
		2211	910	1.10	25×35
	150	1769	880	1.30	22×50
		1769	880	1.30	25×40
		1769	880	1.30	30×30
	180	1474	740	1.40	25×45
		1474	740	1.40	30×35
		1474	740	1.40	35×25

# SN系列

SERIES

## ◆ STANDARD RATINGS

UR (Surge Voltage) Code	Rated Capacitance	Max ESR 20°C, 120Hz	Typ ESR 20°C, 120Hz	Rated Ripple Current 85°C 120Hz	Size ΦD×L
(V)	(μF)	(mΩ)	(mΩ)	(A rms)	(mm)
450V (500) 2W	220	1206	590	1.60	25×50
		1206	590	1.60	30×40
		1206	590	1.60	35×30
	270	982	490	1.90	30×45
		982	490	1.90	35×35
	330	804	395	2.20	35×40
	390	680	300	2.40	35×45
	470	564	280	2.80	35×50

Customer products are available on request