

USC SERIES

85°C Standard, Snap-in Terminal Type

◆FEATURES

- Load Life : 85°C 3000 hours.
- Smaller size with higher ripple current endurance than USR series.
- RoHS compliance.



◆SPECIFICATIONS

Items	Characteristics																																
Category Temperature Range	-40~ +85℃								-25~ +85℃																								
Rated Voltage Range	10~ 250V.DC								315~ 450V.DC																								
Capacitance Tolerance	±20% (20℃, 120Hz)																																
Leakage Current(MAX)	I=3 √CV (After 5 minutes application of rated voltage) I=Leakage Current(μA) C=Rated Capacitance(μF) V=Rated Voltage(V)																																
(tanδ) Dissipation Factor(MAX)	<table><tr><td>Rated Voltage (V)</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>80</td><td>100</td><td>160~400</td><td>420~450</td></tr><tr><td>tan δ</td><td>0.55</td><td>0.50</td><td>0.45</td><td>0.40</td><td>0.35</td><td>0.30</td><td>0.25</td><td>0.20</td><td>0.15</td><td>0.25</td></tr></table> (20℃, 120Hz)											Rated Voltage (V)	10	16	25	35	50	63	80	100	160~400	420~450	tan δ	0.55	0.50	0.45	0.40	0.35	0.30	0.25	0.20	0.15	0.25
Rated Voltage (V)	10	16	25	35	50	63	80	100	160~400	420~450																							
tan δ	0.55	0.50	0.45	0.40	0.35	0.30	0.25	0.20	0.15	0.25																							
Impedance Ratio(MAX)	<table><tr><td>Rated Voltage (V)</td><td colspan="2">10~250</td><td colspan="2">315~400</td><td colspan="2">420~450</td></tr><tr><td>Z (-25℃)/Z (20℃)</td><td colspan="2">3</td><td colspan="2">8</td><td colspan="2">12</td></tr><tr><td>Z (-40℃)/Z (20℃)</td><td colspan="2">12</td><td colspan="2">—</td><td colspan="2">—</td></tr></table> (120Hz)											Rated Voltage (V)	10~250		315~400		420~450		Z (-25℃)/Z (20℃)	3		8		12		Z (-40℃)/Z (20℃)	12		—		—		
Rated Voltage (V)	10~250		315~400		420~450																												
Z (-25℃)/Z (20℃)	3		8		12																												
Z (-40℃)/Z (20℃)	12		—		—																												
Endurance	After applying rated voltage with rated ripple current for 3000hrs at 85℃, the capacitors shall meet the following requirements. <table><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><tr><td>Leakage Current</td><td>Not more than the specified value.</td></tr></table>											Capacitance Change	Within ±20% of the initial value.	Dissipation Factor	Not more than 200% of the specified value.	Leakage Current	Not more than the specified value.																
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◆MULTIPLIER FOR RIPPLE CURRENT

Frequency coefficient

Frequency (Hz)		60 (50)	120	500	1k	10k ≤
Coefficient	10~100WV	0.90	1.00	1.05	1.10	1.15
	160~250WV	0.80	1.00	1.20	1.30	1.50
	315~450WV	0.80	1.00	1.20	1.25	1.40

◆PART NUMBER

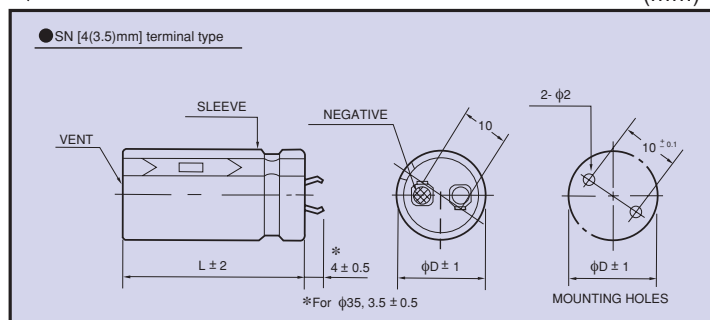
 USC SN DXL
 Rated Voltage Series Rated Capacitance Capacitance Tolerance Option Terminal Code Case Size

◆Option

	Code
PET Sleeve without plate	EFC
PVC Sleeve without plate	OOE
PVC Sleeve with plate	Blank

◆DIMENSIONS

(mm)



◆ **STANDARD SIZE**

Cap (μ F)	WV ϕ D	10					16				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
8200							20X25: 2.56				
10000		20X25: 2.22					20X30: 2.85	22X25: 2.85			
12000		20X30: 2.44	22X25: 2.41				20X35: 3.20	22X30: 3.20			
15000		20X35: 2.90	22X30: 2.88	25X25: 2.88			20X40: 3.70	22X35: 3.70	25X25: 3.70		
18000		20X40: 3.31	22X35: 3.22	25X30: 3.08				22X40: 3.98	25X30: 3.98		
22000			22X40: 3.79	25X30: 3.66	30X25: 3.58			22X45: 4.52	25X35: 4.52	30X25: 4.52	
27000			22X45: 4.04	25X35: 4.04	30X30: 3.99			22X50: 4.98	25X40: 4.98	30X30: 4.98	
33000			22X50: 4.58	25X40: 4.56	30X30: 4.58				25X45: 5.49	30X35: 5.49	35X30: 5.49
39000				25X45: 5.29	30X35: 5.21	35X30: 5.05			25X50: 6.11	30X40: 6.11	35X35: 6.11
47000				25X50: 5.78	30X40: 5.78	35X35: 5.55				30X45: 6.80	35X35: 6.80
56000					30X45: 6.59	35X35: 6.40				30X50: 7.62	35X40: 7.62
68000					30X50: 7.50	35X40: 7.48				35X45: 8.45	
82000						35X50: 8.50					35X50: 9.14

Cap (μ F)	WV ϕ D	25					35				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
3300							20X25: 2.14				
3900							20X30: 2.28				
4700							20X35: 2.46	22X25: 2.46			
5600		20X25: 2.33					20X40: 2.79	22X30: 2.79	25X25: 2.79		
6800		20X30: 2.56	22X25: 2.56					22X35: 2.89	25X30: 2.89		
8200		20X35: 2.91	22X30: 2.91					22X40: 3.47	25X30: 3.47	30X25: 3.47	
10000		20X40: 3.18	22X35: 3.18	25X25: 3.18				22X45: 3.59	25X35: 3.59	30X30: 3.59	
12000			22X40: 3.53	25X30: 3.53				22X50: 4.51	25X40: 4.51	30X30: 4.51	
15000			22X45: 4.08	25X35: 4.08	30X25: 4.08				25X45: 4.80	30X35: 4.80	35X30: 4.80
18000			22X50: 4.68	25X40: 4.68	30X30: 4.68					30X40: 5.70	35X35: 5.70
22000				25X45: 5.19	30X35: 5.19	35X30: 5.19				30X45: 6.38	35X40: 6.38
27000				25X50: 6.02	30X40: 6.02	35X35: 6.02					35X45: 6.90
33000					30X45: 6.75	35X40: 6.75					35X50: 7.49
39000					30X50: 7.56	35X45: 7.56					
47000						35X50: 8.30					

Cap (μ F)	WV ϕ D	50					63				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
1500							20X25: 1.69				
1800							20X30: 2.04	22X25: 2.04			
2200		20X25: 2.07					20X35: 2.40	22X30: 2.40			
2700		20X30: 2.21	22X25: 2.21				20X40: 2.52	22X35: 2.52	25X25: 2.52		
3300		20X35: 2.41	22X30: 2.41					22X40: 2.69	25X30: 2.69		
3900		20X40: 2.72	22X30: 2.72	25X25: 2.72				22X45: 3.10	25X35: 3.10	30X25: 3.10	
4700			22X35: 3.01	25X30: 3.01				22X50: 3.49	25X40: 3.49	30X30: 3.49	
5600			22X40: 3.43	25X35: 3.43	30X25: 3.43				25X45: 3.81	30X35: 3.81	
6800			22X45: 3.94	25X35: 3.94	30X30: 3.94				25X50: 4.41	30X40: 4.41	35X30: 4.41
8200				25X40: 4.37	30X35: 4.37					30X45: 4.90	35X35: 4.90
10000				25X50: 5.02	30X40: 5.02	35X30: 5.02				30X50: 5.49	35X40: 5.49
12000					30X45: 5.60	35X35: 5.60					35X45: 6.30
15000					30X50: 6.44	35X40: 6.44					
18000						35X45: 6.71					

Cap (μ F)	WV ϕ D	80					100				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
680							20X25: 1.66				
820							20X30: 1.86	22X25: 1.86			
1000		20X25: 1.56					20X30: 2.02	22X30: 2.02			
1200		20X30: 1.80	22X25: 1.80				20X35: 2.12	22X30: 2.12	25X25: 2.12		
1500		20X30: 2.10	22X30: 2.10				20X40: 2.45	22X35: 2.45	25X30: 2.45		
1800		20X35: 2.30	22X30: 2.30	25X25: 2.30				22X40: 2.77	25X30: 2.77	30X25: 2.77	
2200		20X40: 2.53	22X35: 2.53	25X30: 2.53				22X45: 3.12	25X35: 3.12	30X30: 3.12	
2700			22X40: 2.93	25X35: 2.93	30X25: 2.93				25X40: 3.61	30X30: 3.61	
3300			22X45: 3.25	25X35: 3.25	30X30: 3.25				25X50: 4.06	30X35: 4.06	35X30: 4.06
3900				25X40: 3.62	30X35: 3.62					30X40: 4.60	35X35: 4.60
4700				25X45: 4.28	30X40: 4.28	35X30: 4.28				30X45: 5.13	35X40: 5.13
5600					30X45: 4.55	35X35: 4.55					35X45: 5.75
6800					30X45: 5.83	35X40: 5.83					35X50: 6.01
8200						35X45: 6.40					
10000						35X50: 7.03					

↑ Ripple Current (A r.m.s./120Hz, 85°C)
↑ Case Size ϕ D X L (mm)

◆ STANDARD SIZE

Cap (μ F)	WV ϕ D	160					180				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
270		20X25; 1.28					20X25; 1.29				
330		20X25; 1.55					20X30; 1.77	22X25; 1.49			
390		20X30; 1.63	22X25; 1.63				20X30; 1.84	22X25; 1.84			
470		20X30; 1.90	22X30; 1.86	25X25; 1.86			20X35; 1.91	22X30; 1.91	25X25; 2.08		
560		20X35; 2.14	22X30; 2.15	25X25; 2.15			20X40; 2.15	22X35; 2.25	25X25; 2.25		
680		20X40; 2.35	22X35; 2.35	25X30; 2.33	30X25; 2.33			22X35; 2.48	25X30; 2.50	30X25; 2.46	
820			22X40; 2.68	25X30; 2.65	30X25; 2.64			22X40; 2.86	25X35; 2.75	30X25; 2.69	
1000			22X45; 3.02	25X35; 3.00	30X30; 2.96			22X50; 3.10	25X40; 3.06	30X30; 3.10	
1200				25X40; 3.43	30X30; 3.41	35X30; 3.40			25X45; 3.63	30X35; 3.55	35X30; 3.49
1500				25X50; 3.96	30X35; 3.96	35X30; 3.94				30X40; 4.10	35X35; 4.02
1800					30X40; 4.31	35X35; 4.28				30X45; 4.55	35X35; 4.54
2200					30X50; 4.96	35X40; 4.96					35X40; 4.83
2700						35X45; 5.57					35X50; 5.30

Cap (μ F)	WV ϕ D	200					220				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
220		20X25; 1.19					20X25; 1.23				
270		20X25; 1.39	22X25; 1.37				20X30; 1.46	22X25; 1.42			
330		20X30; 1.56	22X25; 1.51				20X35; 1.64	22X30; 1.59			
390		20X35; 1.74	22X30; 1.73	25X25; 1.71			20X35; 1.79	22X30; 1.80	25X25; 1.75		
470		20X35; 2.03	22X30; 1.97	25X25; 1.95			20X40; 2.12	22X35; 2.06	25X30; 2.08		
560		20X40; 2.18	22X35; 2.18	25X30; 2.15	30X25; 2.15			22X40; 2.22	25X35; 2.38	30X25; 2.18	
680			22X40; 2.48	25X30; 2.48	30X25; 2.48			22X45; 2.62	25X35; 2.56	30X30; 2.52	
820			22X45; 2.81	25X35; 2.79	30X30; 2.75				25X45; 2.91	30X35; 2.84	35X30; 2.79
1000			22X50; 3.28	25X40; 3.28	30X35; 3.15					30X35; 3.36	35X30; 3.29
1200				25X45; 3.61	30X35; 3.61	35X30; 3.57				30X40; 3.72	35X35; 3.68
1500					30X45; 4.13	35X35; 4.06				30X50; 4.18	35X40; 4.10
1800					30X50; 4.60	35X40; 4.59					35X45; 4.52
2200						35X45; 5.25					

Cap (μ F)	WV ϕ D	250					315				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
150							20X30; 1.00				
180		20X25; 1.20					20X35; 1.13	22X30; 1.29	25X25; 1.38		
220		20X25; 1.26	22X25; 1.24				20X35; 1.29	22X30; 1.41	25X25; 1.47		
270		20X30; 1.42	22X25; 1.50					22X35; 1.68	25X30; 1.70		
330		20X35; 1.68	22X30; 1.66	25X25; 1.61				22X40; 1.91	25X35; 1.94	30X25; 1.98	
390		20X40; 1.92	22X35; 1.88	25X30; 1.88				22X45; 2.07	25X40; 2.11	30X30; 2.15	
470			22X35; 2.15	25X35; 2.15	30X25; 2.04				25X50; 2.31	30X35; 2.38	35X30; 2.36
560			22X40; 2.48	25X35; 2.35	30X25; 2.35					30X35; 2.63	35X30; 2.69
680				25X40; 2.67	30X30; 2.71					30X45; 2.80	35X35; 3.05
820				25X45; 3.01	30X35; 2.98	35X30; 2.96				30X50; 3.28	35X40; 3.45
1000					30X40; 3.56	35X35; 3.48					35X45; 3.57
1200					30X45; 3.99	35X35; 3.84					
1500						35X40; 4.33					
1800						35X50; 4.54					

Cap (μ F)	WV ϕ D	350					385				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
68							20X25; 0.68				
82							20X30; 0.74	22X25; 0.76			
100							20X30; 0.86	22X30; 0.89			
120		20X30; 0.96	22X25; 1.04				20X35; 0.96	22X30; 0.98	25X25; 1.02		
150		20X30; 1.10	22X30; 1.20	25X25; 1.22			20X35; 1.10	22X35; 1.12	25X30; 1.14		
180		20X35; 1.24	22X30; 1.34	25X25; 1.37			20X40; 1.27	22X35; 1.27	25X30; 1.30	30X25; 1.37	
220			22X35; 1.47	25X30; 1.53	30X25; 1.54			22X40; 1.42	25X35; 1.48	30X30; 1.49	
270			22X40; 1.70	25X35; 1.73	30X25; 1.80			22X50; 1.60	25X40; 1.61	30X30; 1.64	
330			22X45; 1.87	25X35; 1.97	30X30; 2.03				25X45; 1.80	30X35; 1.85	35X30; 1.87
390				25X40; 2.14	30X35; 2.23	35X30; 2.30			25X50; 2.04	30X40; 2.05	35X35; 2.07
470				25X50; 2.55	30X35; 2.53	35X30; 2.55				30X45; 2.26	35X35; 2.26
560					30X40; 2.73	35X35; 2.75				30X50; 2.57	35X40; 2.59
680					30X50; 3.15	35X40; 3.15					35X45; 2.80
820						35X45; 3.47					
1000						35X50; 3.60					

↑ Ripple Current (A r.m.s./120Hz, 85°C)
Case Size ϕ D $\times$ L(mm)

◆ STANDARD SIZE

Cap (μ F)	WV ϕ D	400					420				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35	ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
68		20X25; 0.75					20X25; 0.70				
82		20X30; 0.82	22X25; 0.84				20X30; 0.80	22X25; 0.85			
100		20X30; 0.95	22X30; 0.99				20X35; 0.90	22X30; 0.97	25X25; 0.98		
120		20X35; 1.07	22X30; 1.09	25X25; 1.13			20X35; 1.04	22X30; 1.07	25X25; 1.08		
150		20X40; 1.22	22X35; 1.24	25X30; 1.27			20X40; 1.17	22X35; 1.21	25X30; 1.26	30X25; 1.30	
180			22X40; 1.41	25X30; 1.44	30X25; 1.52			22X40; 1.33	25X35; 1.42	30X25; 1.48	
220			22X45; 1.58	25X35; 1.64	30X30; 1.66			22X45; 1.55	25X35; 1.58	30X30; 1.65	
270				25X40; 1.79	30X30; 1.82				25X40; 1.74	30X35; 1.90	35X30; 1.94
330				25X45; 2.00	30X35; 2.05	35X30; 2.05			25X50; 2.20	30X35; 1.98	35X35; 2.17
390					30X40; 2.26	35X35; 2.28				30X40; 2.22	35X35; 2.27
470					30X45; 2.51	35X40; 2.54				30X45; 2.50	35X40; 2.61
560					30X50; 2.85	35X40; 2.85					35X45; 2.95
680						35X50; 3.10					

Cap (μ F)	WV ϕ D	450				
		ϕ 20	ϕ 22	ϕ 25	ϕ 30	ϕ 35
56		20X25; 0.61				
68		20X30; 0.70	22X25; 0.71			
82		20X35; 0.80	22X25; 0.86			
100		20X35; 0.88	22X30; 0.95	25X25; 0.97		
120		20X40; 0.99	22X35; 1.07	25X30; 1.09	30X25; 1.12	
150			22X40; 1.18	25X30; 1.25	30X25; 1.29	
180			22X45; 1.32	25X35; 1.40	30X30; 1.45	
220				25X40; 1.59	30X30; 1.64	35X30; 1.66
270				25X45; 1.73	30X35; 1.89	35X30; 1.90
330				25X50; 2.12	30X40; 2.12	35X35; 2.15
390					30X45; 2.35	35X40; 2.38
470					30X50; 2.65	35X45; 2.68
560						35X50; 2.88

Ripple Current (A r.m.s./120Hz, 85°C)

Case Size ϕ D $\times$ L(mm)