

USG SERIES

UPGRADE

85°C Miniaturized, Snap-in Terminal Type

◆FEATURES

- Load Life : 85°C 3000 hours.
- Smaller size than USC series.
- RoHS compliance.



◆SPECIFICATIONS

Items	Characteristics																
Category Temperature Range	-40~+85°C	-25~+85°C															
Rated Voltage Range	160~250V.DC	400~450V.DC															
Capacitance Tolerance	±20% (20°C, 120Hz)																
Leakage Current(MAX)	$I=3\sqrt{CV}$ (After 5 minutes application of rated voltage) I=Leakage Current(µA) C=Capacitance(µF) V=Rated Voltage(V)																
(tanδ) Dissipation Factor(MAX)	0.2 (20°C, 120Hz)																
Endurance	After applying rated voltage with rated ripple current for 3000 hours at 85°C, the capacitors shall meet the following requirements. <table border="1" style="margin-left: 20px;"> <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.									
Capacitance Change	Within ±20% of the initial value.																
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Low Temperature Stability Impedance Ratio(MAX)	<table border="1" style="margin-left: 20px;"> <tr> <td>Rated Voltage (V)</td> <td>160~250</td> <td>400</td> <td>420~450</td> <td>(120Hz)</td> </tr> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>4</td> <td>8</td> <td>12</td> <td></td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>12</td> <td>-</td> <td>-</td> <td></td> </tr> </table>		Rated Voltage (V)	160~250	400	420~450	(120Hz)	Z(-25°C)/Z(20°C)	4	8	12		Z(-40°C)/Z(20°C)	12	-	-	
Rated Voltage (V)	160~250	400	420~450	(120Hz)													
Z(-25°C)/Z(20°C)	4	8	12														
Z(-40°C)/Z(20°C)	12	-	-														

◆MULTIPLIER FOR RIPPLE CURRENT

Frequency Coefficient

Coefficient	Frequency (Hz)	60(50)	120	500	1k	10k≤
	160~250WV		0.80	1.00	1.20	1.30
400~450WV		0.80	1.00	1.20	1.25	1.40

◆OPTION

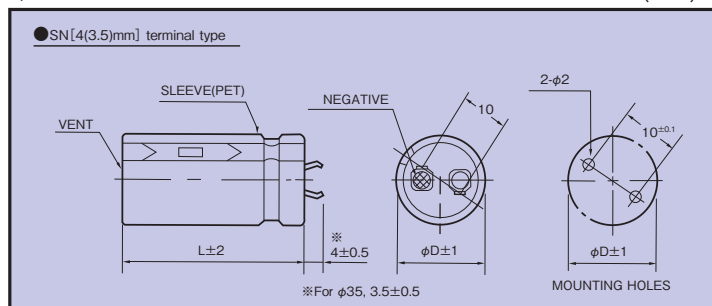
	Code
PET Sleeve without plate	EFC

◆PART NUMBER

□□□ / USG / □□□□□ / M / □□□ / SN / DXL
 Rated Voltage Series Capacitance Capacitance Tolerance Option Terminal Code Case Size

◆DIMENSIONS

(mm)



◆ STANDARD SIZE

Cap (μF) \ WV / φD	160					180				
	φ20	φ22	φ25	φ30	φ35	φ20	φ22	φ25	φ30	φ35
390	20×25; 1.19					20×25; 1.84				
470	20×30; 1.76	22×25; 1.76				20×30; 2.08	22×25; 2.08			
560	20×30; 2.25	22×25; 2.25				20×35; 2.25	22×30; 2.25			
680	20×35; 2.50	22×30; 2.50	25×25; 2.50			20×40; 2.50	22×35; 2.50	25×25; 2.50		
820	20×40; 2.75	22×35; 2.75	25×30; 2.75			20×45; 2.75	22×40; 2.75	25×30; 2.75		
1000		22×40; 3.00	25×30; 3.00	30×25; 3.00			22×45; 3.00	25×35; 3.00	30×25; 3.00	
1200		22×45; 3.25	25×35; 3.25	30×30; 3.25			22×50; 3.31	25×40; 3.31	30×30; 3.31	35×25; 3.31
1500			25×45; 3.73	30×35; 3.73				25×50; 3.83	30×35; 3.83	35×30; 3.83
1800			25×50; 4.20	30×35; 4.20	35×30; 4.20				30×40; 4.32	35×35; 4.32
2200				30×45; 4.78	35×35; 4.78				30×50; 4.92	35×40; 4.92
2700				30×50; 5.45	35×40; 5.45					35×45; 5.52
3300					35×45; 5.75					

Cap (μF) \ WV / φD	200					220				
	φ20	φ22	φ25	φ30	φ35	φ20	φ22	φ25	φ30	φ35
270						20×25; 1.42				
330	20×25; 1.44					20×30; 1.58	22×25; 1.58			
390	20×30; 1.68	22×25; 1.68				20×35; 1.75	22×30; 1.75			
470	20×35; 1.93	22×30; 1.93	25×25; 1.93			20×35; 1.99	22×30; 1.99	25×25; 1.99		
560	20×35; 2.43	22×30; 2.43	25×25; 2.43			20×40; 2.28	22×35; 2.28	25×30; 2.28		
680	20×40; 2.68	22×35; 2.68	25×30; 2.68	30×25; 2.68			22×40; 2.46	25×30; 2.46	30×25; 2.46	
820		22×40; 2.93	25×30; 2.93	30×25; 2.93			22×45; 2.81	25×35; 2.81	30×30; 2.81	
1000		22×45; 3.25	25×35; 3.25	30×30; 3.25	35×25; 3.25			25×45; 3.29	30×30; 3.29	
1200			25×45; 3.50	30×35; 3.50	35×30; 3.50			25×50; 3.60	30×35; 3.60	35×30; 3.60
1500			25×50; 3.87	30×40; 3.87	35×30; 3.87				30×45; 3.92	35×35; 3.92
1800				30×45; 4.32	35×35; 4.32				30×50; 4.30	35×40; 4.30
2200				30×50; 4.92	35×40; 4.92					35×50; 4.95
2700					35×50; 5.45					

Cap (μF) \ WV / φD	250					400				
	φ20	φ22	φ25	φ30	φ35	φ20	φ22	φ25	φ30	φ35
82						20×25; 0.80				
100						20×30; 0.94	22×25; 0.94			
120						20×30; 1.08	22×25; 1.08			
150						20×35; 1.21	22×30; 1.21	25×25; 1.21		
180						20×40; 1.45	22×35; 1.45	25×25; 1.45		
220	20×25; 1.23						22×40; 1.58	25×30; 1.58	30×25; 1.58	
270	20×30; 1.31	22×25; 1.31					22×45; 1.67	25×35; 1.67	30×25; 1.67	
330	20×30; 1.75	22×25; 1.75					22×50; 1.90	25×40; 1.90	30×30; 1.90	35×25; 1.90
390	20×35; 1.91	22×30; 1.91	25×25; 1.91					25×45; 2.13	30×35; 2.13	35×30; 2.13
470	20×40; 2.11	22×35; 2.11	25×25; 2.11					25×50; 2.39	30×40; 2.39	35×30; 2.39
560		22×40; 2.25	25×30; 2.25	30×25; 2.25					30×45; 2.69	35×35; 2.69
680		22×45; 2.50	25×35; 2.50	30×30; 2.50						35×40; 2.96
820			25×40; 2.77	30×30; 2.77	35×25; 2.77					35×50; 3.25
1000			25×45; 3.32	30×35; 3.32	35×30; 3.32					
1200				30×40; 3.84	35×35; 3.84					
1500				30×50; 4.25	35×40; 4.25					
1800					35×45; 4.55					

Cap (μF) \ WV / φD	420					450				
	φ20	φ22	φ25	φ30	φ35	φ20	φ22	φ25	φ30	φ35
68						20×25; 0.66				
82	20×25; 0.83					20×25; 0.83				
100	20×30; 0.97	22×25; 0.97				20×30; 0.93	22×25; 0.93			
120	20×30; 1.08	22×25; 1.08				20×35; 1.04	22×30; 1.04	25×25; 1.04		
150	20×35; 1.30	22×30; 1.30	25×25; 1.30			20×40; 1.29	22×35; 1.29	25×25; 1.29		
180	20×40; 1.48	22×35; 1.48	25×30; 1.48				22×40; 1.40	25×30; 1.40	30×25; 1.40	
220		22×40; 1.65	25×35; 1.65	30×25; 1.65			22×45; 1.66	25×35; 1.66	30×25; 1.66	
270		22×50; 1.94	25×35; 1.94	30×30; 1.94			22×50; 1.81	25×40; 1.81	30×30; 1.81	35×25; 1.81
330			25×45; 2.17	30×35; 2.17	35×30; 2.17			25×45; 2.10	30×35; 2.10	35×30; 2.10
390			25×50; 2.27	30×35; 2.27	35×30; 2.27				30×40; 2.32	35×35; 2.32
470				30×40; 2.61	35×35; 2.61				30×45; 2.66	35×40; 2.66
560				30×50; 2.82	35×40; 2.82					35×40; 2.82
680					35×45; 3.11					35×50; 3.00

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