

SHELCON LARGE CAPACITANCE ALUMINUM ELECTROLYTIC CAPACITORS

SHR SERIES

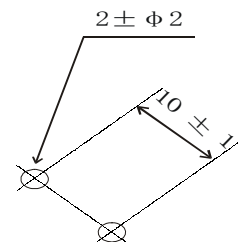
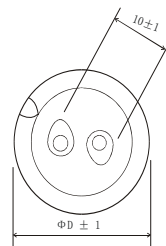
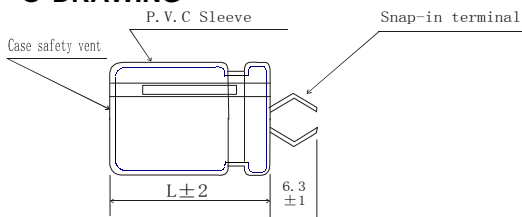
- Endurance with ripple current: 85°C 3000 hours
- Non solvent-proof type



◆ SPECIFICATIONS

Item	Characteristics			
Category Temperature Range	-25~+85°C			
Voltage Range	160 ~ 450V.DC			
Nominal Cap. Range	82 ~ 3900 µF			
Capacitance Tolerance	±20%(M)		20°C, 120Hz	
Leakage Current	$I \leq 3 \sqrt{CV}$ I: Leakage Current (µA); C: Nominal Capacitance (µF); V: Rated Voltage (V) (at 20°C after 5 min.)			
Dissipation Factor(tanδ) (at 120Hz, 20°C)	Rated voltage (V.DC)	160 to 400V	315 to 400V	420 & 450V
	tanδ (max)	0.15	0.15	0.20
Low Temp. Impedance Stability at 120Hz	Rated voltage(V.DC)	160 to 400V	315 to 400V	420 & 450V
	Z-25°C/Z+20°C	4	8	8
High Temp. Load Test	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied for 3000 hours at 85°C Capacitance change --- $\leq \pm 20\%$ of the initial measured value tanδ --- $\leq 200\%$ of the initial specified value Leakage Current --- \leq the initial specified value			
High Temp. Non-Load Test	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1000 hours at 85°C without voltage applied. Capacitance Change --- $\leq \pm 15\%$ of the initial measured value tanδ --- $\leq 150\%$ of the initial specified value Leakage Current --- \leq the initial specified value			

● DRAWING



● MULTIPLIER FOR RIPPLE CURRENT

(1) Frequency Coefficient

Freq.(Hz)	50	120	300	1K	10K	50K
Cap.(µF)						
160~250VDC	0.81	1.00	1.17	1.32	1.45	1.50
315~450VDC	0.77	1.00	1.16	1.30	1.41	1.43

(2) Temperature Coefficient

Ambient Temperature (°C)	40	60	70	85
Coefficient	2.40	2.10	1.50	1.00

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Standard Ratings

Cap.(μ F)	WV(Vdc)	ϕ D	160				180				200			
			22	25	30	35	22	25	30	35	22	25	30	35
390											22X25 1.68			
470						22X25 2.08					22X30 1.85			
560			22X25 2.25			22X30 2.25					22X30 2.43	25X25 2.43		
680			22X30 2.50			22X30 2.50	25X25 2.50				22X35 2.68	25X30 2.68		
820			22X35 2.75			22X35 2.75	25X30 2.75				22X40 2.93	25X30 2.93	30X25 2.93	
1000			22X40 3.00	25X30 3.00				30X25 3.00			22X45 3.25	25X35 3.25	30X30 3.25	35X25 3.25
1200			22X45 3.25	25X35 3.25	30X25 3.25			30X30 3.31	35X25 3.31			25X40 3.50	30X30 3.5	35X30 3.50
1500			22X50 3.73	25X40 3.73	30X30 3.73	35X25 3.73		25X45 3.83	30X35 3.83	35X30 3.83		25X50 3.87	30X35 3.87	35X30 3.87
1800				25X45 4.20	30X35 4.20	35X30 4.20		25X50 4.32	30X40 4.32	35X30 4.32			30X45 4.32	35X35 4.32
2200					30X40 4.78	35X35 4.78			30X45 4.92	35X40(45) 4.92			30X50 4.92	35X40 4.92
2700					35X40 5.45					35X45 5.52				35X50 5.45
3300					35X45 5.75					35X50 5.75				
3900					35X50 6.00									

Upper: Case Size ϕ DxL (mm)
Lower: Rated Ripple Current(Arms)(85 °C 120Hz)

Cap.(μ F)	WV(Vdc)	ϕ D	250				315				350			
			22	25	30	35	22	25	30	35	22	25	30	35
150											22X25 1.12			
180											22X30 1.22			
220											22X35 1.44			
270			22X25 1.31								22X40 1.66	25X30 1.66		
330			22X30 1.75					25X30 1.82	30X25 1.82		22X45 1.88	25X35 1.88		
390			22X30 1.91	25X25 1.91				25X35 2.01	30X30 2.01		22X50 2.06	25X40 2.06	30X30 2.06	35X25 2.06
470			22X35 2.11	25X30 2.11				25X40 2.27	30X30 2.27	35X25 2.27		25X45 2.40	30X35 2.4	35X30 2.4
560			22X40 2.25	25X30 2.25	30X25 2.25			25X45 2.56	30X35 2.56	35X30 2.56		25X50 2.6	30X40 2.6	35X30 2.60
680			22X45 2.5	25X35 2.5	30X30 2.5				30X40 2.87	35X35 2.87			30X45 2.96	35X35 2.96
820			22X45 2.77	25X40 2.77	30X30 2.77	3525 2.77			30X45 3.25	35X40 3.25			30X50 3.25	35X45 3.25
1000				25X45 3.32	30X35 3.32	35X30 3.32			30X50 3.63	35X45 3.63				35X50 3.54
1200					30X40 3.53	35X35 3.53								
1500					30X50 4.04	35X40 4.04								
1800					35X45 4.55									

Upper: Case Size ϕ DxL (mm)
Lower: Rated Ripple Current(Arms)(85 °C 120Hz)

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■ Standard Ratings

Cap.(μ F)	VV(Vdc) ϕ D	400				420				450					
		22	25	30	35	22	25	30	35	22	25	30	35		
82										22X25 0.83					
100					22X25 0.97					22X25 0.93					
120	22X25 1.02				22X25 1.08					22X30 1.04					
150	22X30 1.16				22X30 1.3	25X25 1.3				22X35 1.19	25X25 1.19				
180	22X35 1.44				22X35 1.48	25X30 1.48				22X40 1.35	25X30 1.35				
220	22X40 1.49	25X30 1.49			22X40 1.65	25X35 1.65	30X25 1.65			22X45 1.55	25X40 1.55	30X30 1.55	35X25 1.55		
270	22X45 1.67	25X35 1.67	30X25 1.67		22X50 1.94	25X35 1.94	30X30 1.94			22X50 1.78	25X40 1.78	30X30 1.78			
330	22X50 1.9	25X40 1.9	30X30 1.9	35X25 1.9		25X45 2.17	30X35 2.17	35X30 2.17		25X50 2.01	30X40 2.01	35X30 2.01			
390		25X45 2.13	30X35 2.13	35X30 2.13		25X50 2.27	30X35 2.27	35X30 2.27			30X40 2.24	35X35 2.24			
470		25X50 2.39	30X40 2.39	35X30 2.39			30X40 2.61	35X35 2.61			30X45 2.53	35X40 2.53			
560			30X45 2.69	35X35 2.69			30X50 2.82	35X40 2.82			30X50 2.82	35X45 2.82			
680			30X50 2.96	35X40 2.96				35X45 3.11							
820				35X45 3.25	← Upper: Case Size ϕ DxL (mm) ← Lower: Rated Ripple Current(Arms)(85°C 120Hz)										