

RS Series 85°C

Features

General capacitors

Applications

- ◆ Frequency converters
- ◆ Professional power supplies
- ◆ Uninterruptible power supplies

Features

- ◆ Wide temperature range
- ◆ All-welded construction ensures reliable electrical contact
- ◆ Self-extinguishing electrolyte
- ◆ RoHS-compatible

Construction

- ◆ Charge-discharge proof, polar
- ◆ Aluminum case with insulating sleeve
- ◆ Poles with screw terminal connections
- ◆ Mounting with ring clips, clamps or threaded stud

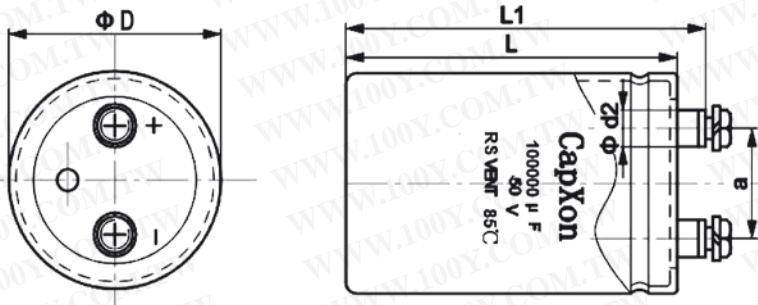


Specifications

Item	Performance Characteristics					
Rated voltage V_R	16... 100 V DC					
Surge voltage V_S	1.15 V_R					
Rated capacitance C_R	3300 ... 1000000 μF					
Capacitance tolerance	$\pm 20\%$					
tan δ (at 20°C · 120Hz)	Less than the value under table(%)					
	ΦD	35	51	63.5	76.2	89
	WV					
	16	60	70	80	120	140
	25	40	50	70	80	130
	35	30	50	60	70	90
	50	25	30	50	60	80
	63	20	25	30	40	60
Leakage Current I_{leak} (20 °C, 5 min)	$I_{\text{leak}} \leq 0.3\mu\text{A} * (C*V)^{0.7} + 4\mu\text{A}$					
	Endurance test 85 °C; V_R	2000 h	Requirements: $\Delta C/C \leq \pm 20\%$ of initial value ESR ≤ 2 times initial specified limit I _{leak} \leq initial specified limit			
Vibration Resistance test	To IEC 60068-2-6, test Fc: Displacement amplitude 0.75 mm, frequency range 10 ... 55 Hz, acceleration max. 10 g, duration 3X2 h. Capacitor mounted by its body which is rigidly clamped to the work surface.					
Low Temperature Characteristics	Max. impedance ratio at 120 Hz					
	$Z_{-25^\circ\text{C}} / Z_{20^\circ\text{C}}$					3
	$Z_{-40^\circ\text{C}} / Z_{20^\circ\text{C}}$					12
Sectional specification	IEC 60384-4 and JIS-C-5101					

Dimensional drawings

Ring clip/clamp mounting:



M5:Min.reach of screw = 8mm
M6:Min.reach of screw = 12mm

Dimensions

Terminal	Dimensions(mm) with insulating sleeve				
	$D \pm 2$	$L \pm 3$	$L_1 \pm 3$	$d_2 \text{max.}$	$a \pm 0.5$
M5	35	50~120	56.5~126.5	10.3	12.7
M5	51	80~140	86.5~146.5	10.3	22
M5	63.5	80~140	86.5~146.5	10.3	28.6
M5	76.2/89	100~240	106.4~246.5	10.3	31.8
M6	76.2/89	100~240	106.4~246.5	17.5	31.8

Packing

Diameter D(mm)	Length L(mm)	Packing (pcs.)
35	$\leq 70\text{mm}$	120
	$> 70\text{mm}$	60
42	$\leq 70\text{mm}$	120
	$> 70\text{mm}$	60
51	$\leq 70\text{mm}$	70
	$> 70\text{mm}$	35
63.5	all	24
76.2	all	15
89	all	12

Accessories

The following items are included in the delivery package, but are not fastened to the capacitors.

	Thread	Maximum torque
For terminal	M5	2 Nm
	M6	2.5 Nm

Case Size

φ D×L(mm)

WV(V) Cap(μF)	16		25		35		50			
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple		
6800							35x50	3.7		
10000					35x60	4.5	35x60	5.0		
15000			35x50	5.0	35x80	5.7	35x80	7.8		
22000	35x60	7.3	35x60	7.7	35x80	8.0	35x100	11.5		
33000	35x60	8.5	35x80	10	35x100	11.0	51x80	11.8		
	35x80	9.5					51x100	13.2		
47000	35x80	11.0	35x100	12.5	35x120	13.7	51x100	14.7		
	35x100	12.0	35x105	13.0						
68000	35x100	11.3	35x120	13.5	51x80	14.5	51x120	16.5		
	35x105	13.0							51x80	14.3
	51x80	13.5							51x100	15.1
100000	35x120	13.5	51x100	15.5	51x120	19.2	63.5x120	19.0		
	51x80	14.0					63.5x140	21.5		
	51x100	15.0	51x105	16.0			76.2x100	19.5		
150000	51x80	15.0	51x120	21.2	63.5x120	25.0	76.2x120	26.5		
	51x100	16.5	51x140	24.2			76.2x140	28.0		
	51x140	17.6	63.5x105	24.0						
220000	51x120	17.8	63.5x120	25.8	76.2x100	26.0	76.2x160	32.7		
	63.5x105	20.0			76.2x140	27.4				
	63.5x120	21.5								
330000	63.5x105	21.0	76.2x120	26.7	76.2x140	33.0	89x160	36.0		
	63.5x120	23.0							76.2x140	28.5
	63.5x140	25.2								
470000	76.2x120	25.5	76.2x150	31.3	89x170	39.0	89x220	41.0		
	76.2x140	27.5								
680000	76.2x160	35.1	89x160	37.0	89x220	41.0				
820000	76.2x220	38.0	89x190	40.0						
1000000	89x200	41.1	89x220	42.0						

Ripple Current(A,rms) at 85°C 120Hz

WV(V) Cap(μF)	63		80		100	
	Size	Ripple	Size	Ripple	Size	Ripple
3300					35x60	4.1
4700			35x60	5.0	35x80	5.8
					35x80	6.7
6800	35x50	5.0	35x60	6.0	35x80	8.0
10000	35x60	6.2	35x80	8.0	35x105	8.7
		7.7			35x100	9.0
	51x80	10.0			51x80	10.0
15000	35x80	8.7	35x120	11.0	51x80	11.0
	35x105	10.0			51x100	12.4
					51x105	13.0
22000	35x120	13.1	51x80	14.0	51x120	16.2
	51x80	13.0			63.5x105	17.0
33000	51x100	13.9	51x120	16.1	51x140	21.3
	51x105	14.0			76.2x105	23.0
47000	51x120	18.6	63.5x120	21.0	63.5x140	24.3
	63.5x105	19.0			76.2x140	25.0
68000	63.5x120	21.3	63.5x140	24.1	76.2x140	26.4
	76.2x105	22.0				
100000	76.2x120	24.0	76.2x160	27.0	89x160	27.2
	76.2x145	25.0				
150000	76.2x160	27.0	89x160	30.0	89x230	29.0
220000	89x160	29.0	89x230	35.0		
330000	89x220	32.0				

Ripple Current(A,rms) at 85°C 120Hz