

RL Series 105°C

Features

Long Endurance

Applications

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

Features

- ◆ Outstanding reliability
- ◆ Wide temperature range
- ◆ Version with low-inductance design available
- ◆ 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

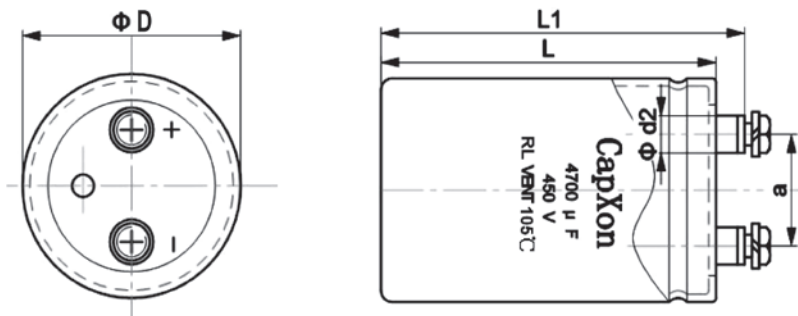
Item	Performance Characteristics					
Rated voltage V_R	350... 450 V DC					
Surge voltage V_S	1.15 V_R (for $V_R \leq 315$ V) or 1.10 V_R (for $V_R > 315$ V)					
Rated capacitance C_R	680 ... 15000 μ F					
Capacitance tolerance	$\pm 20\%$					
tan δ (at 20°C, 120Hz)	Less than the value under table(%)					
	ΦD	35	51	63.5	76.2	89
	WV	20	20	25	25	25
Leakage Current I_{leak} (20°C, 5 min)	$I_{leak} \leq 0.3\mu A * (C*V)^{0.7} + 4\mu A$					
Endurance test 105°C; V_R	5000 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					
	$Z_{-25^\circ C} / Z_{20^\circ C}$	3				
	$Z_{-40^\circ C} / Z_{20^\circ C}$	12				
Sectional specification	IEC 60384-4 and JIS-C-5101					

Multiplier for Ripple Current vs. Frequency

Frequency(Hz)	50	120	1K	3K	$\geq 10K$
<400V	0.8	1	1.20	1.22	1.25
400~450V	0.8	1	1.22	1.24	1.28

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 DxL(mm)					
Cap(μF)	WV(V)	350		400		450	
		Size	Ripple	Size	Ripple	Size	Ripple
680		51x80	4.0				
1000		51x80	6.5	51x80	6.6	63.5x115	12.1
1200		51x80	6.8	51x80	7.0	63.5x120	12.3
1500		51x100	8.6	51x120	9.0	63.5x120	12.5
1800		51x120	9.2	51x140	10.8	63.5x120	13.0
				63.5x100	10.8		
2200		51x120	11.0	63.5x110	11.6	76.2x100	14.0
2700		63.5x100	12.5	63.5x115	13.7	76.2x110	16.9
3300		63.5x110	14.5	63.5x130	16.1	76.2x130	18.0
3900		63.5x130	16.5	63.5x150	17.9	76.2x140	19.0
				76.2x110	18.2	89x120	19.5
4700		63.5x150	20.0	76.2x130	21.2	76.2x140	22.6
		76.2x120	20.0			89x140	24.5
5600		63.5x170	22.5	76.2x150	24.3	76.2x160	25.2
		76.2x130	22.5			89x150	26.5
6800		76.2x150	26.0	89x150	27.1	89x160	26.0
8200		76.2x170	30.0	89x170	29.8	89x190	28.3
		89x150	29.0				
10000		89x150	32.5				
12000		89x190	36.0				
15000		89x220	43.0				

Ripple Current(A,rms) at 105°C 120Hz