



RXQ Series

Features

- 105°C, 8,000 ~ 10,000 hours assured
- Suitable for switching power supplies, UPS, Ballast
- Smaller case size current
- RoHS Compliance

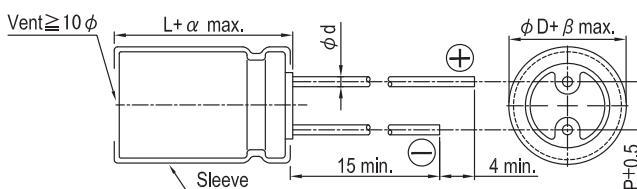


Sleeve & Marking Color: Black & Golden

Specifications

Items	Performance							
Category Temperature Range	160 ~ 400V				450V			
	-40℃ ~ +105℃				-25℃ ~ +105℃			
Capacitance Tolerance	±20% (at 120Hz, 20℃)							
Leakage Current (at 20℃)	Time		after 5 minutes					
	Leakage Current		CV ≤ 1,000 I = 0.03CV + 15(μA)		CV > 1,000 I = 0.02CV + 25(μA)			
	Where, C = rated capacitance in μF V = rated DC working voltage in V							
Tanδ (at 120Hz, 20℃)								
	Rated Voltage	160	200	250	350	400	450	
	Tanδ (max)	0.20	0.20	0.20	0.24	0.24	0.24	
Low Temperature Characteristics (at 120Hz)	Impedance ratio shall not exceed the values given in the table below.							
	Rated Voltage		160	200	250	350	400	450
	Impedance Ratio	Z(-25℃)/Z(+20℃)	3	3	3	5	5	6
Z(-40℃)/Z(+20℃)		6	6	6	6	6	-	
Endurance	Test Time		8,000 Hrs for ϕ D = 10mm; 10,000 Hrs for ϕ D ≥ 12.5mm					
	Capacitance Change		Within ±20% of initial value					
	Tanδ		Less than 200% of specified value					
	Leakage Current		Within specified value					
	* The above specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage applied with rated ripple current for 8,000 / 10,000 hours at 105℃.							
Shelf Life Test	Test Time		1,000 Hrs					
	Capacitance Change		Within ±20% of initial value					
	Tanδ		Less than 200% of specified value					
	Leakage Current		Within specified value					
	* The above specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 1,000 hours at 105℃ without voltage applied. The rated voltage shall be applied to the capacitors before the measurements (Refer to JIS C 5101-4 4.1).							
Ripple Current and Frequency Multipliers								
	Frequency (Hz)		120	1k	10k	100k up		
	Cap. (μF)							
	6.8 ~ 82	1.00	1.75	2.25	2.50			
	100 up	1.00	1.67	2.05	2.25			

Diagram of Dimensions

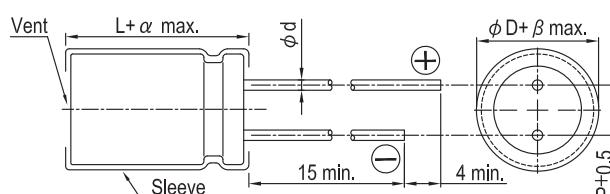


Lead Spacing and Diameter

Unit: mm

ϕD	10	12.5	16	18
P	5.0	5.0	7.5	7.5
ϕd	0.6		0.8	
α	L<20: 1.5, L $\geq$ 20: 2.0			
β	0.5			

The case size of 16×20, 18×20 and 18×25 are suitable for below diagram:





Dimension and Permissible Ripple Current

Dimension: $\phi D \times L$ (mm)

Ripple Current: mA/rms at 105°C

V _{DC} Contents Cap.(μ F)	160V (2C)			200V (2D)			250V (2E)			350V (2V)			400V (2G)		
	$\phi D \times L$	Ripple Current		$\phi D \times L$	Ripple Current		$\phi D \times L$	Ripple Current		$\phi D \times L$	Ripple Current		$\phi D \times L$	Ripple Current	
		120 Hz	100k Hz		120 Hz	100k Hz		120 Hz	100k Hz		120 Hz	100k Hz		120 Hz	100k Hz
6.8										10×16	110	275	10×16	110	275
10	10×12.5	100	250	10×16	125	313	10×20	140	350	10×20	140	350	10×20	140	350
22	10×16 10×20	170 200	425 500	10×20	200	500	10×20	200	500	12.5×20	260	650	12.5×20	260	650
33	10×20	250	625	10×20	260	650	12.5×20	320	800	16×20	360	900	16×20	360	900
47	10×20	300	750	12.5×20	390	975	12.5×20	390	975	16×20	430	1,075	16×25 18×20	470 450	1,175 1,125
68	12.5×20	470	1,175	12.5×20	470	1,175	16×20	520	1,300	16×25 18×20	560 550	1,400 1,375	18×25	585	1,463
82	12.5×20	510	1,275	16×20	550	1,375	16×20	550	1,375	18×25	610	1,525	18×25	610	1,525
100	12.5×25 16×20	620 630	1,395 1,418	16×20	630	1,418	16×25	680	1,530	18×25	700	1,575	18×31.5	765	1,721
120										18×31.5	830	1,868	18×35.5	865	1,946
150	16×25	770	1,733	16×25	840	1,890	18×25	860	1,935	18×35.5	960	2,160	18×40	985	2,216
220	16×31.5	1,020	2,295	18×25	1,050	2,363	18×31.5	1,130	2,543						
330	18×35.5	1,390	3,128	18×35.5	1,430	3,218									

V _{DC} Contents Cap.(μ F)	450V (2W)		
	$\phi D \times L$	Ripple Current	
		120 Hz	100k Hz
6.8	10×20	110	275
10	12.5×20	180	450
22	16×20	290	725
33	16×25 18×20	390 380	975 950
47	18×25	480	1,200
68	18×31.5	630	1,575
82	18×35.5	715	1,788
100	18×40	800	1,800

Part Numbering System

RXQ Series	10 μ F	±20%	450V	Bulk Package	Gas Type	12.5 ϕ ×20L	Pb-free and PET sleeve
RXQ	100	M	2W	BK	-	1320	
Series Name	Capacitance	Capacitance Tolerance	Rated Voltage	Lead Configuration & Package	Rubber Type	Case Size	Lead Wire and Sleeve type

Note: For more details, please refer to "Part Numbering System (Radial Type)" on page 13.



RQL Series

Features

- 105°C, 10,000 hours assured
- 10 ϕ ~ 18 ϕ with large permissible ripple current
- Slim type included
- RoHS Compliance

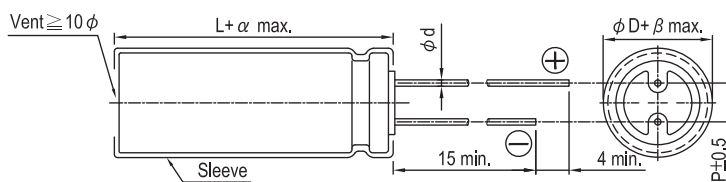


Sleeve & Marking Color: Black & Golden

Specifications

Items	Performance				
Category Temperature Range	400V		420 ~ 450V		
	-40℃ ~ +105℃		-25℃ ~ +105℃		
Capacitance Tolerance	±20% (at 120Hz, 20℃)				
Leakage Current (at 20℃)	Time		after 5 minutes		
	Leakage Current	CV ≤ 1,000 I = 0.03CV + 15(μA)	CV > 1,000 I = 0.02CV + 25(μA)		
		Where, C = rated capacitance in μF V = rated DC working voltage in V			
Tanδ (at 120Hz, 20℃)	Rated Voltage		400	420	450
	Tanδ (max)		0.24	0.24	0.24
Low Temperature Characteristics (at 120Hz)	Impedance ratio shall not exceed the values given in the table below.				
	Rated Voltage		400	420	450
	Impedance Ratio	Z(-25℃)/Z(+20℃)	5	6	6
Z(-40℃)/Z(+20℃)		6	-	-	
Endurance	Test Time		10,000 Hrs		
	Capacitance Change		Within ±20% of initial value		
	Tanδ		Less than 200% of specified value		
	Leakage Current		Within specified value		
	* The above specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage applied with rated ripple current for 10,000 hours at 105℃.				
Shelf Life Test	Test Time		1,000 Hrs		
	Capacitance Change		Within ±20% of initial value		
	Tanδ		Less than 200% of specified value		
	Leakage Current		Within specified value		
	* The above specifications shall be satisfied when the capacitors are restored to 20° C after exposing them for 1,000 hours at 105℃ without voltage applied. The rated voltage shall be applied to the capacitors before the measurements (Refer to JIS C 5101-4 4.1).				
Ripple Current and Frequency Multipliers	Frequency (Hz)		60	120	500
	Multipliers		0.80	1.00	1.25

Diagram of Dimensions



Lead Spacing and Diameter

ϕD	10	12.5	16	18
P	5.0	5.0	7.5	7.5
ϕd	0.6		0.8	
α	2.0			
β	0.5			

Unit: mm



Dimension: $\phi D \times L(\text{mm})$

Ripple Current: mA/rms at 105°C

Dimension and Permissible Ripple Current

Rated Voltage V_{DC}	Cap. (μF)	10 ϕ				12.5 ϕ				16 ϕ				18 ϕ			
		$\phi D \times L$	Ripple Current		$\phi D \times L$	Ripple Current		$\phi D \times L$	Ripple Current		$\phi D \times L$	Ripple Current		$\phi D \times L$	Ripple Current		$\phi D \times L$
			120 Hz	100k Hz		120 Hz	100k Hz		120 Hz	100k Hz		120 Hz	100k Hz		120 Hz	100k Hz	
400V (2G)	33	10×40	315	475													
	39	10×45	360	545													
	47	10×50	420	630	12.5×30	440	660										
	56				12.5×35	500	750										
	68				12.5×40	580	870	16×31.5	530	795							
	82				12.5×50	625	935	16×35.5	615	920							
	100							16×40	715	1,070							
	120							16×40 16×45	800 840	1,200 1,260	18×35.5 18×40	790 870	1,185 1,305				
	150							16×50	990	1,485	18×45	985	1,475				
	180										18×50	1,120	1,685				
420V (2P)	33	10×40	370	555													
	39	10×45	410	615	12.5×30	390	585										
	47	10×50	465	700	12.5×35	450	675										
	56				12.5×40	520	780	16×31.5	500	750							
	68				12.5×45	580	870	16×35.5	580	870							
	82				12.5×50	660	990	16×35.5 16×40	730 675	1,095 1,010							
	100							16×40 16×45	750 755	1,125 1,130	18×35.5	725	1,085				
	120							16×50	865	1,300	18×40 18×45	835 880	1,250 1,320				
	150										18×50	1,030	1,550				
450V (2W)	33	10×45	330	495	12.5×30	370	555										
	39	10×50	380	570	12.5×35	420	630										
	47				12.5×40	480	720										
	53				12.5×45	500	750										
	56				12.5×45	530	795	16×31.5	510	765							
	68				12.5×50	620	930	16×35.5	590	885							
	82							16×40	615	920	18×35.5	645	965				
	100							16×45	715	1,070	18×40	750	1,125				
	120							16×50	820	1,230	18×45	835	1,250				
	150										18×50	975	1,465				

Remark: Other sizes and specification are available, please contact us for detail.

Part Numbering System

RQL Series	39 μF	$\pm 20\%$	450V	Bulk Package	Gas Type	10 ϕ ×50L	Pb-free and PET sleeve
RQL	390	M	2W	BK	-	1050	
Series Name	Capacitance	Capacitance Tolerance	Rated Voltage	Lead Configuration & Package	Rubber Type	Case Size	Lead Wire and Sleeve type

Note: For more details, please refer to "Part Numbering System (Radial Type)" on page 13.