

RWQ Series

- Downsized and high ripple current from RWE series
- Endurance with ripple current : 2,000 hours at 85°C
- RoHS2 Compliant

RWQ

Downsized

RWE

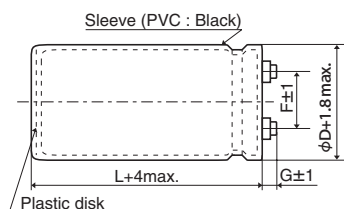


◆ SPECIFICATIONS

Items	Characteristics			
Category	-25 to +85℃			
Temperature Range				
Rated Voltage Range	350 to 550V _{dc}			
Capacitance Tolerance	± 20% (M)			(at 20℃, 120Hz)
Leakage Current	I=0.02CV or 5mA, whichever is smaller. Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V _{dc}) (at 20℃ after 5 minutes)			
Dissipation Factor (tan δ)	0.25 max.			(at 20℃, 120Hz)
Low Temperature Characteristics	Rated voltage (V _{dc})	350 to 450V	500 to 550V	(at 120Hz)
	C(-25℃) / C(+20℃)	≥0.7	≥0.6	
Insulation Resistance	When measured between the terminals shorted each other and the mounting clamp on the insulating sleeve covering the case by using an insulation resistance meter of 500V _{dc} , the insulation resistance shall not be less than 100MΩ.			
Insulation Withstanding Voltage	When a voltage of 2,000V _{ac} is applied for 1 minute between the terminals shorted each other and the mounting clamp on the insulating sleeve covering the case, there shall not be electrical damage.			
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20℃ after subjected to DC voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for 2,000 hours at 85℃.			
	Capacitance change	≤ ±20% of the initial value		
	D.F. (tan δ)	≤300% of the initial specified value		
	Leakage current	≤The initial specified value		
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 500 hours at 85℃ without voltage applied.Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JISC 5101-4.			
	Capacitance change	≤ ±20% of the initial value		
	D.F. (tan δ)	≤300% of the initial specified value		
	Leakage current	≤The initial specified value		

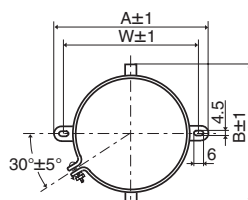
◆ DIMENSIONS (Screw-Mount) [mm]

- Terminal Code : LG



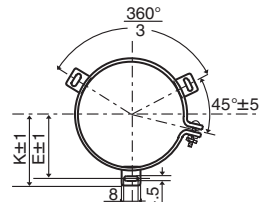
φ50 & φ63.5 : G=6
φ76.2 & φ89 : G=5

- Mounting Clamp Code : B



φD	A	B	W	F
50	78.0	64.0	68.0	22.4
63.5	90.0	76.0	80.0	28.0
76.2	104.5	90.0	93.5	31.5

- Mounting Clamp Code : C



φD	E	K	F	J
50	32.5	37.0	22.4	14.0
63.5	38.1	43.5	28.0	14.0
76.2	44.5	50.0	31.5	14.0
89	50.8	56.5	31.5	16.0

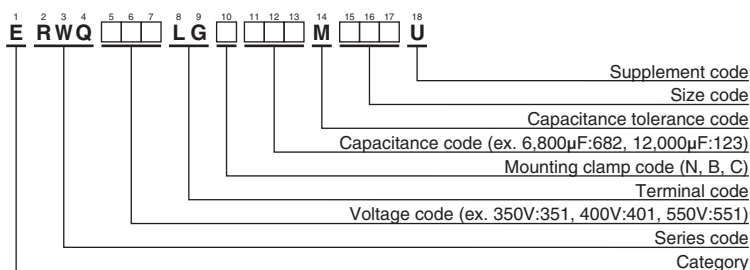
<Screw specifications>

Plus hexagon-headed screw : M5×0.8×10

Maximum screw tightening torque : 3.23Nm

* The screw and the mounting clamp are separately supplied and not attached to the product.

◆ PART NUMBERING SYSTEM



Please refer to "Product code guide (screw-mount terminal type)"

◆STANDARD RATINGS

WV (V _{dc})	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (Arms/ 85°C, 120Hz)	Part No.	WV (V _{dc})	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (Arms/ 85°C, 120Hz)	Part No.
350	1,500	50 × 65	0.25	5.09	ERWQ351LGC152MC65U	500	470	50 × 60	0.25	2.17	ERWQ501LGC471MC60U
	1,800	50 × 75	0.25	5.93	ERWQ351LGC182MC75U		680	50 × 65	0.25	2.70	ERWQ501LGC681MC65U
	2,200	50 × 96	0.25	7.30	ERWQ351LGC222MC96U		820	50 × 75	0.25	3.15	ERWQ501LGC821MC75U
	2,700	50 × 115	0.25	8.76	ERWQ351LGC272MCB5U		1,000	50 × 85	0.25	3.67	ERWQ501LGC102MC85U
	3,300	63.5 × 85	0.25	9.71	ERWQ351LGC332MD85U		1,200	50 × 96	0.25	4.22	ERWQ501LGC122MC96U
	3,900	50 × 130	0.25	11.1	ERWQ351LGC392MCD0U		1,500	50 × 115	0.25	5.14	ERWQ501LGC152MCB5U
	3,900	63.5 × 96	0.25	11.1	ERWQ351LGC392MD96U		1,500	63.5 × 96	0.25	5.42	ERWQ501LGC152MD96U
	4,700	63.5 × 115	0.25	13.2	ERWQ351LGC472MDB5U		1,800	50 × 130	0.25	5.95	ERWQ501LGC182MCD0U
	5,600	63.5 × 130	0.25	15.2	ERWQ351LGC562MDD0U		1,800	63.5 × 96	0.25	5.94	ERWQ501LGC182MD96U
	5,600	76.2 × 96	0.25	14.3	ERWQ351LGC562ME96U		2,200	63.5 × 115	0.25	7.10	ERWQ501LGC222MDB5U
	6,800	76.2 × 115	0.25	17.0	ERWQ351LGC682MEB5U		2,200	76.2 × 96	0.25	7.30	ERWQ501LGC222ME96U
	8,200	76.2 × 130	0.25	19.6	ERWQ351LGC822MED0U		2,700	63.5 × 130	0.25	8.31	ERWQ501LGC272MDD0U
	10,000	76.2 × 155	0.25	23.4	ERWQ351LGC103MEF5U		3,300	76.2 × 115	0.25	9.65	ERWQ501LGC332MEB5U
	12,000	89 × 130	0.25	24.1	ERWQ351LGC123MFD0U		3,900	76.2 × 130	0.25	11.1	ERWQ501LGC392MED0U
400	1,200	50 × 65	0.25	4.55	ERWQ401LGC122MC65U	550	4,700	76.2 × 155	0.25	13.1	ERWQ501LGC472MEF5U
	1,500	50 × 75	0.25	5.41	ERWQ401LGC152MC75U		6,800	89 × 155	0.25	15.9	ERWQ501LGC682MFF5U
	1,800	50 × 85	0.25	6.26	ERWQ401LGC182MC85U		390	50 × 60	0.25	1.98	ERWQ551LGC391MC60U
	2,200	50 × 96	0.25	7.30	ERWQ401LGC222MC96U		560	50 × 65	0.25	2.45	ERWQ551LGC561MC65U
	2,700	50 × 115	0.25	8.76	ERWQ401LGC272MCB5U		680	50 × 75	0.25	2.87	ERWQ551LGC681MC75U
	3,300	63.5 × 96	0.25	10.2	ERWQ401LGC332MD96U		820	50 × 85	0.25	3.32	ERWQ551LGC821MC85U
	3,900	63.5 × 115	0.25	12.0	ERWQ401LGC392MDB5U		1,200	50 × 115	0.25	4.60	ERWQ551LGC122MCB5U
	4,700	63.5 × 130	0.25	13.9	ERWQ401LGC472MDD0U		1,500	63.5 × 96	0.25	5.42	ERWQ551LGC152MD96U
	4,700	76.2 × 96	0.25	13.1	ERWQ401LGC472ME96U		1,800	76.2 × 80	0.25	6.12	ERWQ551LGC182ME80U
	5,600	63.5 × 155	0.25	16.5	ERWQ401LGC562MDF5U		2,200	76.2 × 96	0.25	7.30	ERWQ551LGC222ME96U
	6,800	76.2 × 115	0.25	17.0	ERWQ401LGC682MEB5U		2,700	76.2 × 115	0.25	8.73	ERWQ551LGC272MEB5U
	8,200	76.2 × 155	0.25	21.2	ERWQ401LGC822MEF5U		3,300	76.2 × 130	0.25	10.2	ERWQ551LGC332MED0U
	10,000	89 × 130	0.25	22.0	ERWQ401LGC103MFD0U		5,600	89 × 155	0.25	14.5	ERWQ551LGC562MFF5U
	12,000	89 × 155	0.25	26.0	ERWQ401LGC123MFF5U	450	1,000	50 × 70	0.25	3.87	ERWQ451LGC102MC70U
450	1,200	50 × 75	0.25	4.36	ERWQ451LGC122MC75U		1,200	50 × 75	0.25	4.36	ERWQ451LGC122MC75U
	1,500	50 × 90	0.25	5.28	ERWQ451LGC152MC90U		1,500	50 × 90	0.25	5.28	ERWQ451LGC152MC90U
	1,800	50 × 96	0.25	5.95	ERWQ451LGC182MC96U		1,800	50 × 96	0.25	5.95	ERWQ451LGC182MC96U
	2,200	50 × 130	0.25	7.54	ERWQ451LGC222MCD0U		2,200	50 × 130	0.25	7.54	ERWQ451LGC222MCD0U
	2,700	63.5 × 96	0.25	8.34	ERWQ451LGC272MD96U		2,700	63.5 × 96	0.25	8.34	ERWQ451LGC272MD96U
	3,300	63.5 × 115	0.25	9.97	ERWQ451LGC332MDB5U		3,300	63.5 × 115	0.25	9.97	ERWQ451LGC332MDB5U
	3,900	63.5 × 130	0.25	11.4	ERWQ451LGC392MDD0U		3,900	63.5 × 130	0.25	11.4	ERWQ451LGC392MDD0U
	3,900	76.2 × 96	0.25	11.1	ERWQ451LGC392ME96U		3,900	76.2 × 96	0.25	11.1	ERWQ451LGC392ME96U
	4,700	63.5 × 155	0.25	13.6	ERWQ451LGC472MDF5U		4,700	63.5 × 155	0.25	13.6	ERWQ451LGC472MDF5U
	4,700	76.2 × 115	0.25	13.2	ERWQ451LGC472MEB5U		4,700	76.2 × 115	0.25	13.2	ERWQ451LGC472MEB5U
	5,600	76.2 × 130	0.25	15.2	ERWQ451LGC562MED0U		5,600	76.2 × 130	0.25	15.2	ERWQ451LGC562MED0U
	6,800	76.2 × 155	0.25	18.1	ERWQ451LGC682MEF5U		6,800	76.2 × 155	0.25	18.1	ERWQ451LGC682MEF5U
	8,200	89 × 130	0.25	19.2	ERWQ451LGC822MFD0U		8,200	89 × 130	0.25	19.2	ERWQ451LGC822MFD0U

◆RATED RIPPLE CURRENT MULTIPLIERS

●Frequency Multipliers

Frequency (Hz)	50	120	300	1k	3k
Coefficient	0.8	1.0	1.1	1.3	1.4

The deterioration of aluminum electrolytic capacitors accelerates their life due to the internal heating produced by ripple current. For details, refer to Section "5-3 Ripple Current Effect on Lifetime" in the catalog, Technical Note.

Also, for the RWQ series capacitors, using them at operating voltage less than their rated voltage can extend their lifetime. For the details, please contact a representative of Nippon Chemi-Con.



- Always read "Notes on Use" before using the product in order to enable you to use the product correctly and prevent any faults and accidents from occurring.
- Request the Product Specification on the product of NIPPON CHEMI-CON CORPORATION to refer to it as well as this brochure prior to the order of the products. Some specific notes on use of the ordered product may be described in the specifications.
- The products listed in this catalog are designed and manufactured for general electronics equipment use and are not intended for use in applications that can adversely affect human life; where the malfunction of equipment may cause damage to life or property. In addition, our products are not intended to be used in specific applications that may cause a major social impact. Please consult with us in advance of usage of our products in the following listed applications. ① Aerospace equipment ② Power generation equipment such as thermal power, nuclear power etc. ③ Medical equipment ④ Transport equipment (automobiles, trains, ships, etc.) ⑤ Transportation control equipment ⑥ Disaster prevention / crime prevention equipment ⑦ Highly publicized information processing equipment ⑧ Submarine equipment ⑨ Other applications that are not considered general-purpose applications.
- The circuits described as examples in this catalog and the "delivery specifications" are featured in order to show the operations and usage of our products, however, this fact does not guarantee that the circuits are available to function in your equipment systems. We are not in any case responsible for any failures or damage caused by the use of information contained herein. You should examine our products, of which the characteristics are described in the "delivery specifications" and other documents, and determine whether or not our products suit your requirements according to the specifications of your equipment systems. Therefore, you bear final responsibility regarding the use of our products.
Please make sure that you take appropriate safety measures such as use of redundant design and malfunction prevention measures in order to prevent fatal accidents and/or fires in the event any of our products malfunction.
- We strongly recommend our customers to purchase Nippon Chemi-Con products only through our official sales channels. We assume no responsibility for any defects or damages caused by using products purchased from outside our official sales channel or of counterfeit goods. In addition, we will ask the customer to pay the investigation cost for products purchased outside our official sales channel.
- We reserve the right to discontinue production and delivery of products. We do not guarantee that all the products included in this catalog will be available in the future.
The aforementioned does not apply in the case of individual agreements deviating from the foregoing for customer-specific products
- We continually strive to improve the quality and reliability of our products, but in any case that our product does not meet our published specifications, please stop using it promptly and contact us immediately. As for compensation for non-conforming goods delivered by Chemi-Con, we will limit it only to goods found in non-compliance of our published specifications. This may be accomplished by a no cost replacement of non-conforming individual products, a credit of the piece price paid per each individual non-conforming product, or in other ways deemed necessary.
In addition, we have an established system with enhanced traceability, therefore we will limit the applicable lot items for any potential compensation.

[Part Numbering System](#)

[Part Numbering System \(Appendix\)](#)

[Standardization](#)

[Available Items by Manufacturing Locations](#)

[Environmental Measures](#)

[Technical Note](#)

[Precautions and Guidelines](#)

[Recommended Soldering Conditions](#)

[Taping, Lead-preforming and Packaging](#)

[Available Terminals for Snap-in and Screw Mount Type](#)