

# RWV Series



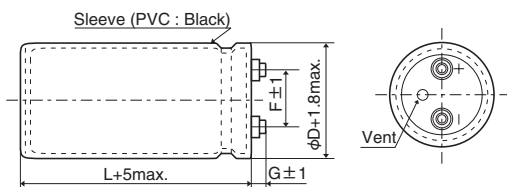
- For frequently change of regenerative voltage from AC servo amplifier and inverter control
- Improved the resistance for charge and discharge from same dimension of RWF series
- Endurance with ripple current : 5,000 hours at 85°C
- Rated voltage range : 350 to 450V<sub>dc</sub>, Capacitance 820 to 18,000μF
- RoHS2 Compliant

## ◆ SPECIFICATIONS

Items	Characteristics	
Category Temperature Range	-25 to +85°C	
Rated Voltage Range	350 to 450V <sub>dc</sub>	
Capacitance Tolerance	±20% (M) (at 20°C, 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) (at 20°C after 5 minutes)	
Dissipation Factor (tan δ)	0.25 max. (at 20°C, 120Hz)	
Low Temperature Characteristics	Capacitance change $C(-25°C)/C(+20°C) \geq 0.7$ (at 120Hz)	
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 <sub>dc</sub> , the insulation resistance shall not be less than 100MΩ.	
Insulation Withstanding Voltage	When a voltage of 2,000V <sub>ac</sub> 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.	
Charge and Discharge	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to charge and discharge test with the voltage waveform shown below at room temperature (15 to 35°C).	
	Capacitance change	≤ ±20% of the initial value
	D.F. (tan δ)	≤ 200% of the initial specified value
	Leakage current	≤ The initial specified value
	Frequency	3Hz
	Number of cycles	50 million times
Endurance	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 (the peak voltage shall not exceed the rated voltage) for 5,000 hours at 85°C.	
	Capacitance change	≤ ±20% of the initial value
	D.F. (tan δ)	≤ 200% 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°C after exposing them for 500 hours at 85°C without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JIS C 5101-4.	
	Capacitance change	≤ ±20% of the initial value
	D.F. (tan δ)	≤ 200% of the initial specified value
	Leakage current	≤ The initial specified value

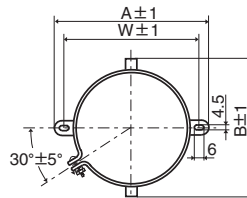
## ◆ DIMENSIONS (Screw-Mount) [mm]

● Terminal Code : LG



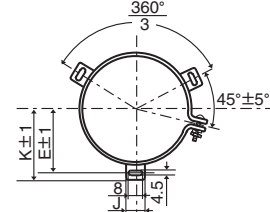
φ50 & φ63.5 : G=6  
φ76.2 & φ89 : G=5

● 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>

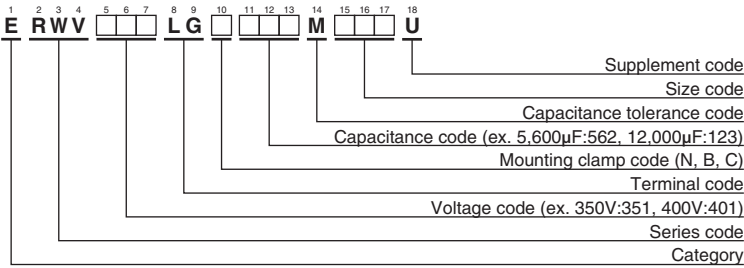
Plus hexagon-headed screw :M5×0.8×10

Maximum screw tightening torque :3.23Nm

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

RWV Series

◆PART NUMBERING SYSTEM



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

◆STANDARD RATINGS

WV (V <sub>dc</sub> )	Cap (µF)	Case size φD×L(mm)	Rated ripple current (Arms/ 85°C, 120Hz)	Max. charge current and Max. discharge current (Arms/ 3Hz)	Part No.	
350	1,200	50 × 60	4.70	1.56	ERWV351LGC122MC60U	
	1,500	50 × 70	5.50	1.83	ERWV351LGC152MC70U	
	1,800	50 × 80	6.40	2.13	ERWV351LGC182MC80U	
	2,200	50 × 96	7.60	2.53	ERWV351LGC222MC96U	
	2,700	50 × 105	8.80	2.94	ERWV351LGC272MCA5U	
	2,700	50 × 115	9.20	3.06	ERWV351LGC272MCB5U	
	3,300	50 × 130	10.8	3.58	ERWV351LGC332MCD0U	
	4,700	63.5 × 115	13.2	4.61	ERWV351LGC472MDB5U	
	5,600	63.5 × 130	15.2	5.30	ERWV351LGC562MDD0U	
	5,600	76.2 × 105	15.2	5.36	ERWV351LGC562MEA5U	
	6,800	63.5 × 155	18.1	6.32	ERWV351LGC682MDF5U	
	8,200	63.5 × 170	20.7	7.25	ERWV351LGC822MDH0U	
	8,200	76.2 × 130	20.2	6.57	ERWV351LGC822MED0U	
	10,000	76.2 × 155	24.2	8.47	ERWV351LGC103MEF5U	
	10,000	89 × 115	23.1	8.10	ERWV351LGC103MFB5U	
	12,000	76.2 × 170	27.6	9.66	ERWV351LGC123MEH0U	
	12,000	89 × 130	26.6	9.33	ERWV351LGC123MFD0U	
	15,000	89 × 155	32.1	11.2	ERWV351LGC153MFF5U	
15,000	89 × 170	33.5	11.7	ERWV351LGC153MFH0U		
18,000	89 × 190	38.5	13.5	ERWV351LGC183MFK0U		
375	1,000	50 × 60	4.30	1.42	ERWV3H1LGC102MC60U	
	1,200	50 × 70	4.90	1.64	ERWV3H1LGC122MC70U	
	1,500	50 × 80	5.80	1.94	ERWV3H1LGC152MC80U	
	2,200	50 × 96	7.60	2.54	ERWV3H1LGC222MC96U	
	2,200	50 × 105	8.00	2.65	ERWV3H1LGC222MCA5U	
	2,700	50 × 115	9.20	3.06	ERWV3H1LGC272MCB5U	
	3,300	50 × 130	10.8	3.58	ERWV3H1LGC332MCD0U	
	4,700	63.5 × 115	13.2	4.61	ERWV3H1LGC472MDB5U	
	5,600	63.5 × 130	15.2	5.30	ERWV3H1LGC562MDD0U	
	5,600	76.2 × 105	15.2	5.36	ERWV3H1LGC562MEA5U	
	6,800	63.5 × 155	18.1	6.32	ERWV3H1LGC682MDF5U	
	6,800	63.5 × 170	18.9	6.60	ERWV3H1LGC682MDH0U	
	8,200	76.2 × 130	20.2	7.09	ERWV3H1LGC822MCD0U	
	8,200	89 × 115	20.9	7.35	ERWV3H1LGC822MFB5U	
	10,000	76.2 × 155	24.2	8.48	ERWV3H1LGC103MEF5U	
	10,000	76.2 × 170	25.2	8.85	ERWV3H1LGC103MEH0U	
	10,000	89 × 130	24.3	8.54	ERWV3H1LGC103MFD0U	
	12,000	89 × 155	28.7	10.0	ERWV3H1LGC123MFF5U	
15,000	89 × 170	33.5	11.7	ERWV3H1LGC153MFH0U		
15,000	89 × 190	35.2	12.3	ERWV3H1LGC153MFK0U		
400	1,000	50 × 60	4.30	1.42	ERWV401LGC102MC60U	
	1,200	50 × 70	4.90	1.64	ERWV401LGC122MC70U	
	1,500	50 × 80	5.80	1.95	ERWV401LGC152MC80U	
	1,800	50 × 96	6.90	2.29	ERWV401LGC182MC96U	
	2,200	50 × 105	8.00	2.65	ERWV401LGC222MCA5U	
	2,200	50 × 115	8.30	2.77	ERWV401LGC222MCB5U	
	2,700	50 × 130	9.80	3.23	ERWV401LGC272MCD0U	
	3,900	63.5 × 115	12.0	4.21	ERWV401LGC392MDB5U	
	4,700	63.5 × 130	13.9	4.86	ERWV401LGC472MDD0U	
	5,600	63.5 × 155	16.4	5.75	ERWV401LGC562MDF5U	
	400	5,600	63.5 × 170	17.1	5.99	ERWV401LGC562MDH0U
		5,600	76.2 × 105	15.2	5.35	ERWV401LGC562MEA5U
		6,800	76.2 × 130	18.4	6.47	ERWV401LGC682MED0U
		8,200	76.2 × 155	21.9	7.68	ERWV401LGC822MEF5U
		8,200	76.2 × 170	22.8	8.02	ERWV401LGC822MEH0U
		8,200	89 × 115	20.9	7.35	ERWV401LGC822MFB5U
		10,000	89 × 130	24.3	8.26	ERWV401LGC103MFD0U
		12,000	89 × 155	28.7	10.0	ERWV401LGC123MFF5U
12,000		89 × 170	29.9	10.5	ERWV401LGC123MFH0U	
15,000		89 × 190	35.2	12.3	ERWV401LGC153MFK0U	
420		820	50 × 60	3.80	1.29	ERWV421LGC821MC60U
		1,000	50 × 70	4.40	1.50	ERWV421LGC102MC70U
		1,200	50 × 80	5.20	1.75	ERWV421LGC122MC80U
		1,800	50 × 96	6.80	2.30	ERWV421LGC182MC96U
		1,800	50 × 105	7.10	2.40	ERWV421LGC182MCA5U
		2,200	50 × 115	8.20	2.77	ERWV421LGC222MCB5U
		2,700	50 × 130	9.60	3.25	ERWV421LGC272MCD0U
		3,300	63.5 × 115	11.0	3.87	ERWV421LGC332MDB5U
	3,900	63.5 × 130	12.7	4.44	ERWV421LGC392MDD0U	
	4,700	63.5 × 155	15.0	5.28	ERWV421LGC472MDF5U	
	4,700	76.2 × 105	13.9	4.92	ERWV421LGC472MEA5U	
	5,600	63.5 × 170	17.1	6.02	ERWV421LGC562MDH0U	
	5,600	76.2 × 130	16.6	5.90	ERWV421LGC562MED0U	
	6,800	89 × 115	19.0	6.73	ERWV421LGC682MFB5U	
	8,200	76.2 × 170	22.7	8.04	ERWV421LGC822MEH0U	
	8,200	89 × 130	22.0	7.78	ERWV421LGC822MFD0U	
	10,000	89 × 155	26.2	9.24	ERWV421LGC103MFF5U	
	12,000	89 × 170	29.9	10.5	ERWV421LGC123MFH0U	
12,000	89 × 190	31.5	11.0	ERWV421LGC123MFK0U		
450	820	50 × 60	3.80	1.29	ERWV451LGC821MC60U	
	1,000	50 × 70	4.40	1.50	ERWV451LGC102MC70U	
	1,200	50 × 80	5.20	1.74	ERWV451LGC122MC80U	
	1,500	50 × 96	6.20	2.10	ERWV451LGC152MC96U	
	1,800	50 × 105	7.10	2.41	ERWV451LGC182MCA5U	
	1,800	50 × 115	7.40	2.51	ERWV451LGC182MCB5U	
	2,200	50 × 130	8.70	2.93	ERWV451LGC222MCD0U	
	3,300	63.5 × 115	11.0	3.88	ERWV451LGC332MDB5U	
	3,900	63.5 × 130	12.7	4.44	ERWV451LGC392MDD0U	
	3,900	76.2 × 105	13.2	4.49	ERWV451LGC392MEA5U	
	4,700	63.5 × 155	15.0	5.27	ERWV451LGC472MDF5U	
	4,700	63.5 × 170	15.6	5.50	ERWV451LGC472MDH0U	
	5,600	76.2 × 130	16.6	5.88	ERWV451LGC562MED0U	
	6,800	76.2 × 155	19.8	7.04	ERWV451LGC682MEF5U	
	6,800	89 × 115	19.0	6.72	ERWV451LGC682MFB5U	
	8,200	76.2 × 170	22.7	7.97	ERWV451LGC822MEH0U	
	8,200	89 × 130	22.0	7.72	ERWV451LGC822MFD0U	
	10,000	89 × 155	26.2	9.22	ERWV451LGC103MFF5U	
10,000	89 × 170	27.3	9.66	ERWV451LGC103MFH0U		
12,000	89 × 190	31.5	11.1	ERWV451LGC123MFK0U		



## RWV Series

### ◆ RATED RIPPLE CURRENT MULTIPLIERS

#### ● Frequency Multipliers

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

Note : The endurance of capacitors is shortened with internal heating produced by ripple current at the rate of halving the lifetime with every 5 to 10°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced. Also, for the RWV 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.