

# RWF Series

- High ripple capability
- Endurance with ripple current : 5,000 hours at 85°C
- Wide range of case sizes from  $\phi 50$  to  $\phi 100$
- RoHS2 Compliant



## SPECIFICATIONS

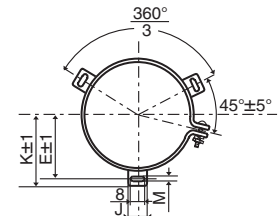
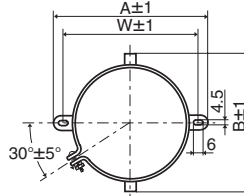
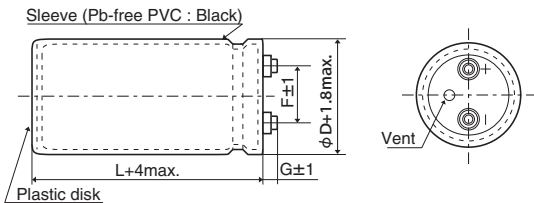
Items	Characteristics						
Category							
Temperature Range	-25 to +85°C						
Rated Voltage Range	350 to 450V <sub>dc</sub>						
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)						
Leakage Current	I=0.02CV or 5mA, whichever is smaller. Where, I : Max. leakage current (μA), C : Nominal capacitance (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 that are connected to each other and to 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 that are connected to each other and to 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°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. <table border="1"> <tr> <td>Capacitance change</td> <td>≤ ±20% of the initial value</td> </tr> <tr> <td>D.F. (tan δ)</td> <td>≤ 200% of the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>≤ The initial specified value</td> </tr> </table>	Capacitance change	≤ ±20% of the initial value	D.F. (tan δ)	≤ 200% of the initial specified value	Leakage current	≤ The initial specified value
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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. <table border="1"> <tr> <td>Capacitance change</td> <td>≤ ±20% of the initial value</td> </tr> <tr> <td>D.F. (tan δ)</td> <td>≤ 200% of the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>≤ The initial specified value</td> </tr> </table>	Capacitance change	≤ ±20% of the initial value	D.F. (tan δ)	≤ 200% of the initial specified value	Leakage current	≤ The initial specified value
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## DIMENSIONS (Screw-Mount) [mm]

● Terminal Code : LG

● Mounting Clamp Code : B

● Mounting Clamp Code : C



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

φD	E	K	M	F	J
50	32.5	37.0	4.5	22.4	14.0
63.5	38.1	43.5	4.5	28.0	14.0
76.2	44.5	50.0	4.5	31.5	14.0
89	50.8	56.5	4.5	31.5	16.0
100	56.5	63.4	5.5	41.5	18.0

- φ50 & φ63.5 : G=6
- φ76.2 & φ89 : G=5
- φ100 : G=10

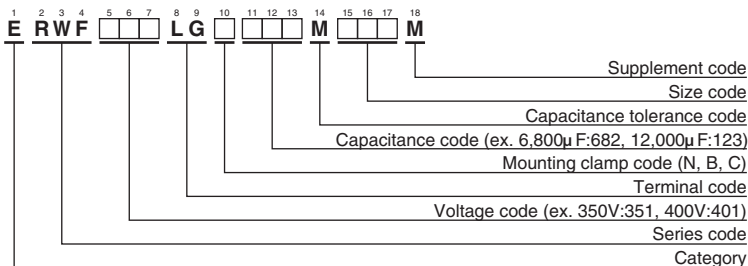
<Screw specifications>

to φ89 Plus hexagon-headed screw : M5×0.8×10  
Maximum screw tightening torque : 3.23Nm

φ100 Cross-recessed head (Phillips) screw : M8×1.25×16  
Spring washer, Washer  
Maximum screw tightening torque : 6.31Nm

\* 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 <sub>dc</sub> )	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (Arms/85°C, 120Hz)	Part No.	WV (V <sub>dc</sub> )	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (Arms/85°C, 120Hz)	Part No.	
350	1,200	50 × 60	0.25	4.90	ERWF351LGC122MC60M	400	5,600	63.5 × 190	0.25	18.2	ERWF401LGC562MDK0M	
	1,800	50 × 75	0.25	6.50	ERWF351LGC182MC75M		5,600	76.2 × 130	0.25	16.9	ERWF401LGC562MED0M	
	2,200	50 × 85	0.25	7.50	ERWF351LGC222MC85M		6,800	76.2 × 155	0.25	20.2	ERWF401LGC682MEF5M	
	2,200	50 × 96	0.25	7.70	ERWF351LGC222MC96M		8,200	76.2 × 170	0.25	22.8	ERWF401LGC822MEH0M	
	2,700	50 × 115	0.25	9.30	ERWF351LGC272MCB5M		10,000	89 × 155	0.25	26.6	ERWF401LGC103MFF5M	
	3,300	50 × 130	0.25	10.8	ERWF351LGC332MCD0M		12,000	89 × 170	0.25	30.0	ERWF401LGC123MFH0M	
	3,900	63.5 × 115	0.25	12.1	ERWF351LGC392MDB5M		15,000	100 × 190	0.25	33.7	ERWF401LGC153MGK0M	
	4,700	63.5 × 130	0.25	14.0	ERWF351LGC472MDD0M		18,000	100 × 220	0.25	37.4	ERWF401LGC183MGN0M	
	5,600	63.5 × 155	0.25	16.6	ERWF351LGC562MDF5M		450	820	50 × 60	0.25	4.00	ERWF451LGC821MC60M
	5,600	76.2 × 115	0.25	16.1	ERWF351LGC562MEB5M			1,000	50 × 75	0.25	4.80	ERWF451LGC102MC75M
	6,800	63.5 × 190	0.25	20.0	ERWF351LGC682MDK0M			1,200	50 × 85	0.25	5.60	ERWF451LGC122MC85M
	6,800	76.2 × 130	0.25	18.6	ERWF351LGC682MED0M			1,200	50 × 96	0.25	5.70	ERWF451LGC122MC96M
	8,200	76.2 × 155	0.25	22.2	ERWF351LGC822MEF5M			1,500	50 × 96	0.25	6.30	ERWF451LGC152MC96M
	10,000	76.2 × 170	0.25	25.2	ERWF351LGC103MEH0M			1,800	50 × 115	0.25	7.60	ERWF451LGC182MCB5M
	12,000	89 × 155	0.25	29.1	ERWF351LGC123MFF5M			2,200	50 × 130	0.25	8.80	ERWF451LGC222MCD0M
	15,000	89 × 190	0.25	35.7	ERWF351LGC153MFK0M			2,700	63.5 × 115	0.25	10.1	ERWF451LGC272MDB5M
18,000	100 × 190	0.25	36.9	ERWF351LGC183MGK0M	3,300	63.5 × 130		0.25	11.7	ERWF451LGC332MDD0M		
22,000	100 × 250	0.25	46.1	ERWF351LGC223MGR0M	3,900	63.5 × 155		0.25	13.8	ERWF451LGC392MDF5M		
400	1,000	50 × 60	0.25	4.40	ERWF401LGC102MC60M	3,900		76.2 × 115	0.25	13.4	ERWF451LGC392MEB5M	
	1,500	50 × 75	0.25	5.90	ERWF401LGC152MC75M	4,700		63.5 × 190	0.25	16.7	ERWF451LGC472MDK0M	
	1,800	50 × 85	0.25	6.80	ERWF401LGC182MC85M	4,700		76.2 × 130	0.25	15.5	ERWF451LGC472MED0M	
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	4,700	63.5 × 155	0.25	15.2	ERWF401LGC472MDF5M	15,000	100 × 250	0.25	37.0	ERWF451LGC153MGR0M		
	4,700	76.2 × 115	0.25	14.7	ERWF401LGC472MEB5M							

◆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 reduced 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 RWF series capacitors, using them at operating voltage less than their rated voltage can extend their lifetime. For details, please contact a representative of Nippon Chemi-Con.