

EWL Series

- Useful life with ripple current : 15,000 hours at 85°C
- Endurance with ripple current : 2,000 hours at 85°C
- RoHS Compliant

◆ SPECIFICATIONS

Items	Characteristics						
Category							
Temperature Range	-25 to +85°C						
Rated Voltage Range	315 to 450V _{dc}						
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 (tanδ)	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 _{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°C after subjected to DC voltage with the rated ripple current is applied for 2,000 hours at 85°C. <table border="1" style="width: 100%; margin-top: 5px;"> <tr> <td>Capacitance change</td> <td>≤±20% of the initial value</td> </tr> <tr> <td>D.F. (tanδ)</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. (tanδ)	≤200% of the initial specified value	Leakage current	≤The initial specified value
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D.F. (tanδ)	≤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" style="width: 100%; margin-top: 5px;"> <tr> <td>Capacitance change</td> <td>≤±20% of the initial value</td> </tr> <tr> <td>D.F. (tanδ)</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. (tanδ)	≤200% of the initial specified value	Leakage current	≤The initial specified value
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◆ USEFUL LIFE

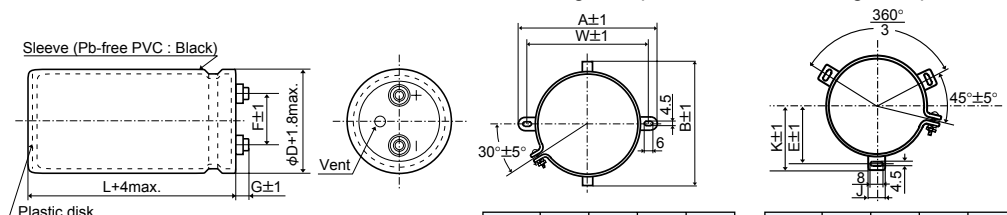
Items	Characteristics								
Useful life	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied for 15,000 hours at 85°C. <table border="1" style="width: 100%; margin-top: 5px;"> <tr> <td>Capacitance change</td> <td>≤±30% of the initial value</td> </tr> <tr> <td>D.F. (tanδ)</td> <td>≤300% of the initial specified value</td> </tr> <tr> <td>Leakage current</td> <td>≤The initial specified value</td> </tr> <tr> <td>Failure rate</td> <td>≤1%</td> </tr> </table>	Capacitance change	≤±30% of the initial value	D.F. (tanδ)	≤300% of the initial specified value	Leakage current	≤The initial specified value	Failure rate	≤1%
Capacitance change	≤±30% of the initial value								
D.F. (tanδ)	≤300% of the initial specified value								
Leakage current	≤The initial specified value								
Failure rate	≤1%								

◆ DIMENSIONS (Screw-Mount) [mm]

● Terminal Code : LG

● Mounting Clamp Code : B

● Mounting Clamp Code : C



<Screw specifications>
 Plus hexagon-headed screw :
 M5×0.8×10
 Maximum screw tightening torque :
 3.23Nm

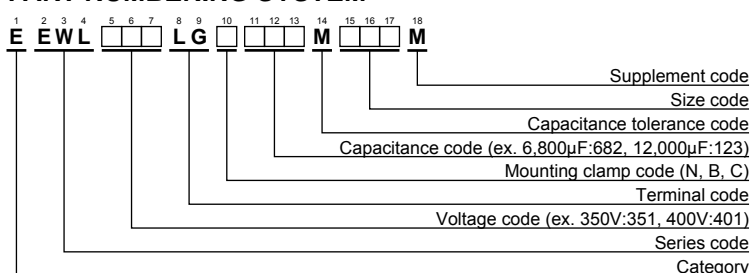
φ63.5 : G=6
 φ76.2 & φ89 : G=5

φD	A	B	W	F
63.5	90.0	76.0	80.0	28.0
76.2	104.5	90.0	93.5	31.5

φD	E	K	F	J
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

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

◆ PART NUMBERING SYSTEM



Specifications in this bulletin are subject to change without notice.

EWL Series

◆STANDARD RATINGS

WV (Vdc)	Cap (μF)	Case size φD×L(mm)	tanδ	Rated ripple current (Arms/85°C,120Hz)	Part No.	WV (Vdc)	Cap (μF)	Case size φD×L(mm)	tanδ	Rated ripple current (Arms/85°C,120Hz)	Part No.
315	4,700	63.5 × 115	0.25	10.7	EEWL3B1LGC472MDB5M	400	3,300	63.5 × 115	0.25	9.2	EEWL401LGC332MDB5M
	5,600	63.5 × 130	0.25	12.1	EEWL3B1LGC562MDD0M		3,900	63.5 × 130	0.25	10.4	EEWL401LGC392MDD0M
	5,600	63.5 × 155	0.25	12.7	EEWL3B1LGC562MDF5M		3,900	63.5 × 155	0.25	11.0	EEWL401LGC392MDF5M
	8,200	76.2 × 130	0.25	15.6	EEWL3B1LGC822MED0M		5,600	76.2 × 130	0.25	13.3	EEWL401LGC562MED0M
	8,200	76.2 × 155	0.25	16.2	EEWL3B1LGC822MEF5M		6,800	76.2 × 155	0.25	15.0	EEWL401LGC682MEF5M
	10,000	76.2 × 170	0.25	19.1	EEWL3B1LGC103MEH0M		8,200	76.2 × 170	0.25	17.6	EEWL401LGC822MEH0M
	12,000	89 × 155	0.25	17.6	EEWL3B1LGC123MFF5M		8,200	89 × 155	0.25	15.0	EEWL401LGC822MFF5M
	15,000	89 × 170	0.25	20.4	EEWL3B1LGC153MFH0M		10,000	89 × 170	0.25	17.3	EEWL401LGC103MFH0M
350	3,900	63.5 × 115	0.25	9.9	EEWL351LGC392MDB5M	450	2,700	63.5 × 115	0.25	8.3	EEWL451LGC272MDB5M
	4,700	63.5 × 130	0.25	11.2	EEWL351LGC472MDD0M		3,300	63.5 × 130	0.25	9.5	EEWL451LGC332MDD0M
	5,600	63.5 × 155	0.25	12.7	EEWL351LGC562MDF5M		3,900	63.5 × 155	0.25	10.7	EEWL451LGC392MDF5M
	6,800	76.2 × 130	0.25	14.4	EEWL351LGC682MED0M		4,700	76.2 × 130	0.25	12.1	EEWL451LGC472MED0M
	8,200	76.2 × 155	0.25	16.2	EEWL351LGC822MEF5M		5,600	76.2 × 155	0.25	13.6	EEWL451LGC562MEF5M
	10,000	76.2 × 170	0.25	19.1	EEWL351LGC103MEH0M		6,800	76.2 × 170	0.25	15.9	EEWL451LGC682MEH0M
	10,000	89 × 155	0.25	16.3	EEWL351LGC103MFF5M		6,800	89 × 155	0.25	13.6	EEWL451LGC682MFF5M
	12,000	89 × 170	0.25	18.6	EEWL351LGC123MFH0M		8,200	89 × 170	0.25	15.6	EEWL451LGC822MFH0M

◆RATED RIPPLE CURRENT MULTIPLIERS

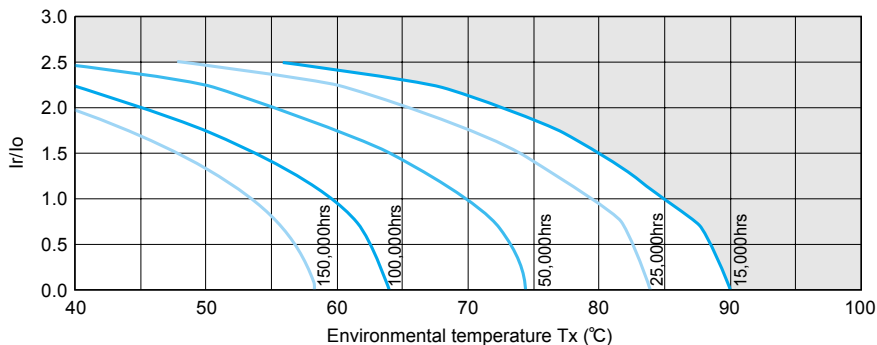
●Frequency Multipliers

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 currents 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.

◆USEFUL LIFE

Useful life depending on ambient temperature Tx under ripple current operating conditions



Useful life

85 °C, 15,000hours

[After useful life specifications]

Capacitance change $\leq \pm 30\%$ of the initial value

D.F. (tanδ) $\leq 300\%$ of the initial specified value

Leakage current \leq The initial specified value

Failure rate $\leq 1\%$

Ir : Operating ripple current

Io : Rated ripple current (85°C, 120Hz)