

LARGE ALUMINUM ELECTROLYTIC CAPACITORS

I14098 (WM)

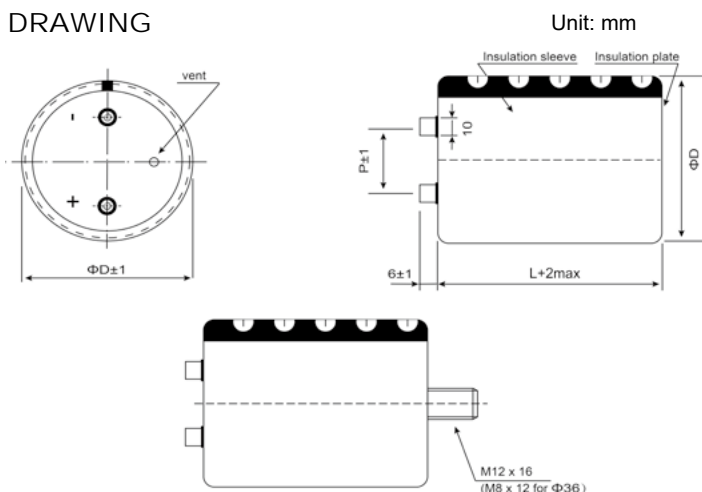
Screw Terminal Type, Long Life Series

- High Reliability at High Voltage
- Long Life at Compact Size
- Professional Inverters and Power Supplies
- Complied to the RoHS directive

Items	Performance characteristics					
Operating temperature range	-40 ~ +85°C (400V~550V); -25 ~ +85°C (600V)					
Leakage current max.	I=0.01CV or 5mA whichever is smaller (after 5 minutes)					
Capacitance tolerance	±20% at 120Hz, 20°C					
Dissipation factor max. (at 120Hz, 20°C)	WV	400	450	500	550	600
	Tanδ	0.15	0.15	0.20	0.20	0.25

	Useful Life		Load Life	Endurance Test	Shelf Life
Life Time	>10000h	>100000h	5000h	5000h	1000h
Leakage Current	Not more than specified value		Not more than specified value	Not more than specified value	Not more than specified value
Capacitance Change	Within ±30% of initial value		Within ±20% of initial value	Within ±10% of initial value	Within ±20% of initial value
Dissipation Factor	Not more than 300% of specified value		Not more than 200% of specified value	Not more than 130% of specified value	Not more than 200% of specified value
Condition:					
Applied Voltage	U_R	U_R	U_R	U_R	$U_R=0$
Applied Current	I_R	$1.2 \times I_R$	I_R	$I_R=0$	$I_R=0$
Applied Temperature	85°C	40°C	85°C	85°C	85°C
					After test U_R to be applied for 60min>24h before measurement

DRAWING



$\Phi D/mm$	51	64	77	90	101
P/mm	22.0	28.2	31.4	31.4	41.5

Ripple Current Coefficient

Frequency(Hz)	50/60	120	300	1k	>10k
Coefficient	0.80	1.00	1.10	1.30	1.40

Ambient Temp(°C)	40	60	85
Coefficient	1.89	1.67	1.00

The useful life can be prolonged by operating capacitor at loads below the rated values (e.g.lower operating voltage, Rms ripple current or ambient temperature) and by appropriate cooling measures.

It is advisable not to apply a ripple current exceeding the rated ripple current without any cooling measures as this will shorten capacitor's life.

*Hex head screw M5×10 and M6×12 are standard screws.

Longer screws are available on request.

*Max tightening torque for screw terminal M5:3Nm, M6:4Nm.

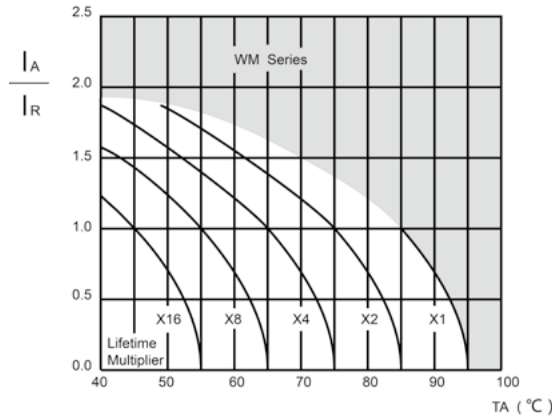
Max torque for bolt mounting M12:12.5Nm.

*Screws, Bracket and cap nut will be delivered separately if necessary.

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Lifetime Diagram

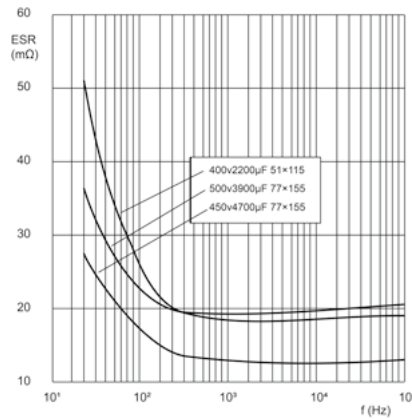


I_A =actual ripple current at 120Hz, I_R =rated ripple current at 120Hz, 85°C

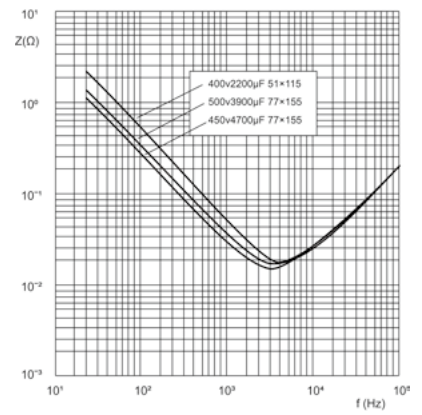
Multiplier of Useful Life as a function of ambient temperature and ripple current load.

Typical Curves

ESR ~ Frequency at 20°C



Impedance Z ~ Frequency at 20°C



● DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

μF \ WV(SV)	400 (450)				450 (500)				500 (550)				
1200										51×115	215	94	6.2
										64×96	215	94	6.3
1500										51×130	172	72	7.3
										64×96	172	72	7.1
1800					51×115	119	45	7.6	64×115	143	51	8.3	
2200	51×115	98	28	8.8	51×130	98	35	8.8	64×130	117	40	9.6	
2700	51×130	80	24	10.2	64×96	80	30	9.5	77×115	96	35	10.7	
3300	64×96	65	21	11.0	64×115	65	24	11.2	77×130	78	35	12.4	
3900	64×115	55	19	12.8	64×130	55	20	12.8	77×155	66	25	14.4	
4700	64×130	46	15	14.8	77×115	46	16	14.1	77×171	55	24	16.5	
									90×131	55	24	15.8	
5600	77×115	38	14	16.2	77×130	38	13	16.2	77×195	46	22	19.0	
									90×157	46	22	18.6	
6800	77×130	32	13	18.7	77×155	32	11	19.1	90×171	38	19	21.2	
8200	77×155	26	12	22.0	77×195	26	10	23.0	90×196	31	14	24.5	
					90×131	26	10	21.0	101×175	31	14	24.2	
10000	77×195	22	10	26.7	90×171	22	9	25.7	90×236	26	12	29.3	
	90×131	22	10	24.2					101×195	26	12	27.9	
12000	90×157	18	8	28.5	90×196	18	8	29.7	101×237	22	11	33.1	
					101×175	18	8	29.3					
15000	90×196	14	6	34.8	90×236	14	7	35.9	↑ Case size Φ D×L (mm)				
					101×195	14	7	34.2	← Ripple current (A rms) at 85°C, 120Hz				
18000	90×236	12	5	41.2	101×237	12	6	40.5	← Typ ESR (mΩ) at 20°C, 120Hz				
22000	101×237	10	5	47.0					← Max.ESR (mΩ) at 20°C, 120Hz				

μF \ WV(SV)	550 (600)				600 (650)			
1000	51×130	258	110	5.9	64×130	210	105	5.4
1200	64×115	215	95	6.8	77×115	188	94	6.1
1500	64×130	172	74	8.0	77×130	150	75	7.3
1800	77×115	143	72	8.7	77×150	124	62	8.9
2200	77×130	117	50	10.1	90×131	102	51	9.7
2700	77×155	96	40	12.0	90×157	90	45	11.6
3300	77×155	78	36	13.3	90×171	76	38	13.4
3900	90×157	66	30	15.5	90×196	66	33	16.2
4700	90×171	55	24	17.6	90×196	56	28	19.5
5600	90×196	46	20	20.3	101×220	50	25	22.5
6800	90×236	38	16	24.1				