I14102 (WP)

Screw Terminal Type, Long Useful Life Series

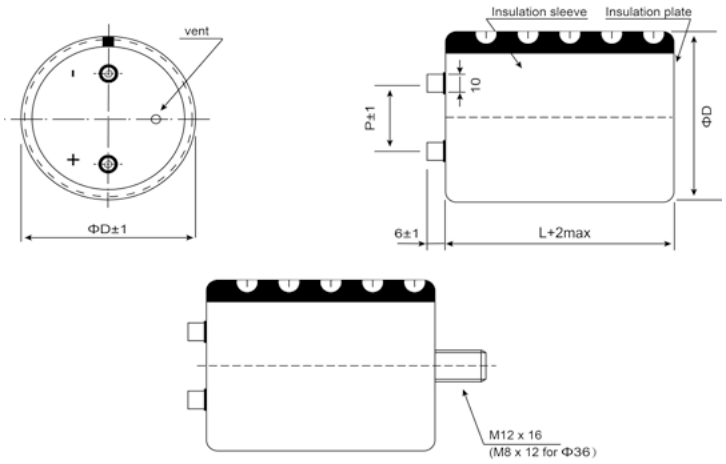
· Long Useful Life at 105℃
· Highest Professional Power
· Complied to the RoHS directive

Items	Performance characteristics			
Operating temperature range	-40 ~ +105℃			
Leakage current max.	I=0.01CV or 5mA whichever is smaller (after 5 minutes)			
Capacitance tolerance	±20% at 120Hz, 20℃			
Dissipation factor max. (at 120Hz, 20℃)	WV	350	400	450
	Tanδ	0.15	0.15	0.15
Low temperature characteristics (Capacitance ratio at 120Hz)	WV	350	400	450
	C-25℃ /C+20℃	≥0.7	≥0.7	≥0.7

	Useful Life		Load Life	Endurance Test	Shelf Life
Life Time	>9000h	>200000h	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:					After test
Applied Voltage	U_R	U_R	U_R	U_R	U_R=0 U_R to be applied
Applied Current	I_R	1.2×I_R	I_R	I_R=0	I_R=0 for 60min>24h
Applied Temperature	105℃	40℃	105℃	105℃	105℃ before measurement

DRAWING

Unit: mm



ΦD/mm	51	64	77	90	101
P/mm	22.0	28.2	31.4	31.4	41.5

*Hex head screw M5×10 and M6×12 are standard screws.
Longer screws are available on request.
*Max tightening torque for screw terminanl M5:3Nm,M6:4Nm.
Max troque for bolt mounting M12:12.5Nm.
*Screws, Bracket and cap nut will be delivered separately if necessary.

Ripple Current Coefficient

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

Ambient Temp(℃)	40	60	85	105
Coefficient	2.44	2.16	2.00	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 exeeding the rated ripple current without any cooling measures as this will shorten capacitor's life.

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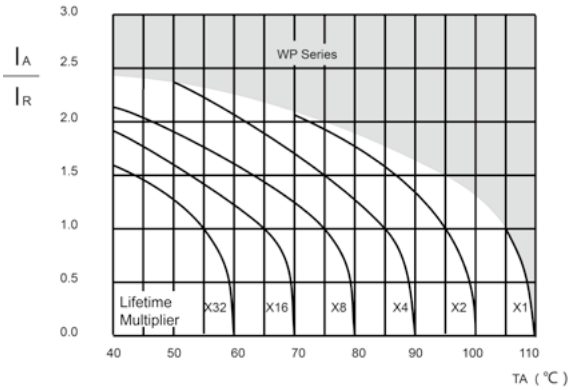
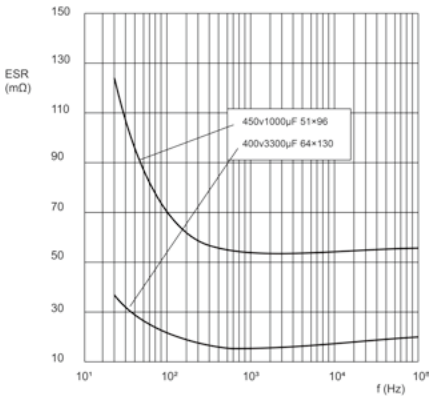
Typical Curves

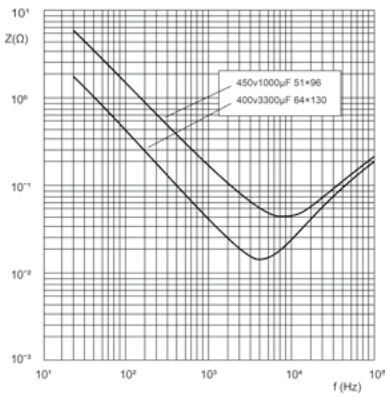
Lifetime Diagram



ESR ~ Frequency at 20℃



Impedance Z ~ Frequency at 20℃



I_A=actual ripple current at 120Hz,I_R=rated ripple current at 120Hz,105℃

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

● DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

WV(SV) / μF	350 (400)				400 (450)				450 (500)			
1000	51×75	259	69	3.9	51×75	215	70	3.9	51×96	215	70	4.2
1200	51×75	215	65	4.2	51×96	179	64	4.6	51×115	179	66	5.0
1500	51×96	172	55	5.2	51×115	143	54	5.6	51×130	143	54	5.9
1800	51×96	143	43	5.7	51×130	119	43	6.4	64×96	119	44	6.3
2200	51×130	117	30	7.1	64×96	98	41	6.9	64×115	98	42	7.4
2700	64×96	96	27	7.7	64×115	80	38	8.2	64×130 77×115	80 80	40 42	8.6 8.7
3300	64×115	78	23	9.1	64×130	65	29	9.5	64×155 77×130	65 65	31 35	10.2 10.1
3900	64×130	66	19	10.4	64×155 77×115	55 55	26 28	11.1 10.4	64×195	55	28	12.3
4700	64×155 77×115	55 55	15 16	12.2 11.5	64×195 77×130	46 46	20 22	13.4 12.0	77×155	46	25	12.9
5600	64×195 77×130	46 46	13 14	14.6 13.1	64×195 77×155	39 39	19 19	14.6 14.0	77×195 90×157	38 38	22 24	15.4 14.9
6800	77×155	38	13	15.5	90×157	32	17	16.5	90×196	32	21	18.0
8200	90×157	31	11	18.1	90×157	26	15	18.1	90×196	27	18	19.8
10000	90×157	26	10	19.9	90×196	22	12	21.7	90×236	22	16	23.6
12000	90×196	22	8	23.8	90×236	18	8	25.8				
15000	90×236	17	6	28.8								

Ripple current (A rms) at 105℃ , 120Hz
Typ ESR(mΩ)at 20℃ ,120Hz
Max.ESR(mΩ)at 20℃ ,120Hz
Case size Φ D×L (mm)