

WR

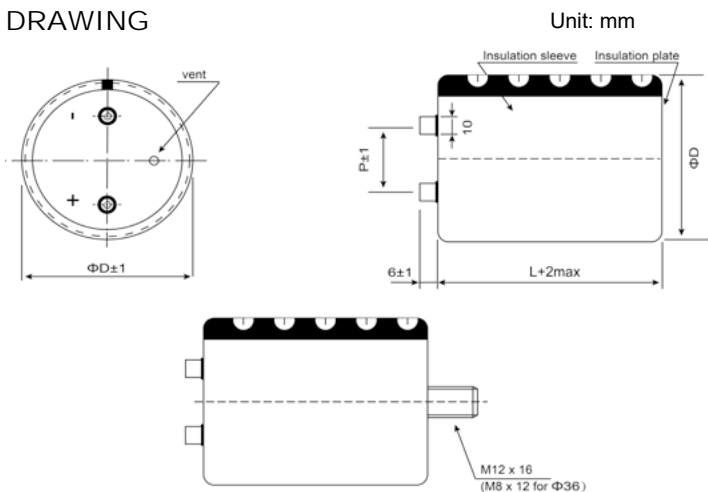
Screw Terminal Type, Higher Current, Long Life Series

- Long Useful Life at 105°C
- Higher current and High Reliability
- Highest Professional Power
- Complied to the RoHS directive

Items	Performance characteristics			
Operating temperature range	-40 ~ +105°C			
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	350	400	450
	Tanδ	0.15	0.15	0.15
Low temperature characteristics (Capacitance ratio at 120Hz)	WV	350	400	450
	C-25°C /C+20°C	≥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:					<div style="border: 1px solid black; padding: 5px;"> After test U_R to be applied for 60min>24h before measurement </div>
Applied Voltage	U _R	U _R	U _R	U _R	
Applied Current	I _R	1.2×I _R	I _R	I _R =0	
Applied Temperature	105°C	40°C	105°C	105°C	

DRAWING



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

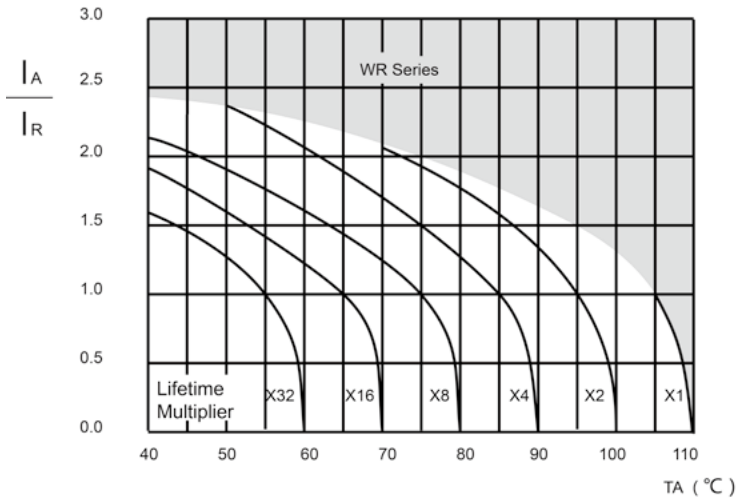
Ambient Temp(°C)	40	60	85	105
Coefficient	2.44	2.16	2.00	1.00

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 exceeding the rated ripple current without any cooling measures as this will shorten capacitor's life.

WR Series

Lifetime Diagram



I_A =actual ripple current at 120Hz, I_R =rated ripple current at 120Hz, 105°C
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)			
	2200									64×115	69	38
2700					64×115	56	28	13.1	64×130	56	31	13.7
									77×115	56	31	14.5
3300	64×115	55	23	14.4	64×130	46	23	15.2	64×155	46	23	16.5
									77×130	46	25	16.9
3900	64×130	46	19	16.6	64×155	39	21	17.9				
					77×115	39	21	18.2				
4700	64×155	39	17	19.8	77×130	32	17	20.1	77×155	32	18	21.7
	77×115	39	17	19.1								
5600	77×130	32	14	21.9	77×155	27	15	23.8	77×195	27	16	26.4
									90×157	27	16	24.2
6800	77×155	27	12	26.2	90×157	22	13	26.7	90×196	22	14	29.5
8200	90×157	22	11	29.3	90×157	18	11	29.3	90×196	19	12	32.4
10000	90×157	18	10	32.3	90×196	15	9	35.6				
12000	90×196	15	8	39.0								

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