

MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS



KMG Series

● 105℃ 1,000~2,000Hrs assured.

- General
- RoHS compliant.
- Halogen-free capacitors are also available.

Solvent-proof

WV≤100V_{DC}

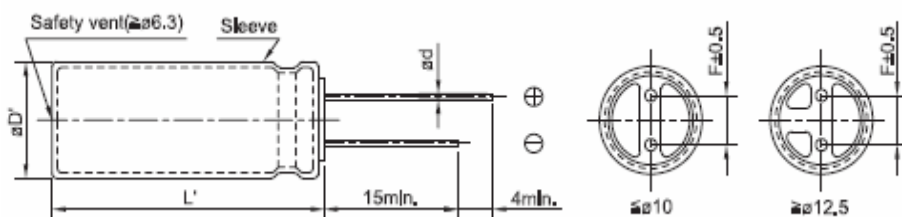


SPECCIFICATIONS

Iteam	Characteristics											
Rated Voltage Range	6.3 ~ 100 V _{DC}					160 ~ 400 V _{DC}			450 V _{DC}			
Operating Temperature Range	-55 ~ +105℃					-40 ~ +105℃			-25 ~ +105℃			
Capacitance Tolerance	±20% (M) (at 20℃, 120Hz)											
Leakage Current	After 1 minute : I = 0.03CV or 4μA, whichever is greater. After 2 minute : I = 0.01CV or 3μA, whichever is greater.					Time		After 1 minute		After 5 minute		
						C:V						
						≤ 1000		I = 0.1CV + 40		I = 0.03CV + 15		
		＞ 1000		I = 0.04CV + 100		I = 0.02CV + 25						
Where, I : Max. Leakage current(μA) C : Nominal capacitance(μF) V : Rated voltage(V _{DC}) (at 20℃)												
Dissipation Factor (tan δ)	Rated Voltage(V _{DC})	6.3	10	16	25	35	50	63	100	160~250	350~450	
	Tanδ(Max.)	0.34	0.24	0.2	0.16	0.14	0.12	0.10	0.09	0.20	0.24	
Temperature Characteristics (Capacitance change ratio)	(at 20℃, 120Hz)											
	Rated Voltage(V _{DC})	6.3	10	16	25	35	50	63~100	160	200~250	350~400	450
	Z(-25℃) / Z(+20℃)	5	4	3	2	2	2	3	3	3	6	6
	Z(-40℃) / Z(+20℃)	12	10	8	5	4	3	4	4	5	6	-
Load Life	(at 120Hz)											
	The following specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage is applied for 2,000 hours at 105℃.(Where, 1,000 hours ≤ Φ8)											
	Capacitance change	≤ ±20 % of the initial value										
	tan δ	≤ 200 % of the initial specified value										
Shelf Life	Leakage current	≤ The initial specified value										
	The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 1,000 hours at 105℃ without voltage applied. The rated volage shall be applied to the capacitors for a minimum of 30 minutes, at least 24 hours and not more than 48 hours before the measurements.(Where, 500 hours ≤ Φ8)											
	Capacitance change	≤ ±20 % of the initial value										
	tan δ	≤ 200 % of the initial specified value										
Others	Leakage current	≤ The initial specified value (Where, 200% for ≥ WV 160V _{DC})										
	Satisfied characteristics KS C IEC 60384-4											

* Please refer each approval sheet for detail specification.

DIMENSIONS OF KMG Series



Unit (mm)

Marking : BROWN SLEEVE , WHITE INK

ΦD	5	6.3	8	10	12.5	16	18
Φd	0.5	0.5	0.6	0.6	0.6	0.8	0.8
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5
ΦD'	ΦD + 0.5max.						
L'	L + 1.5max.			L + 2.0max.			

RATINGS OF KMG Series

μF V_{DC}	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450
0.1						5×11 2.1	5×11 3.2	5×11 3.6						
0.22						5×11 3.2	5×11 4.3	5×11 4.8						
0.33						5×11 6.3	5×11 7.2	5×11 7.8						
0.47						5×11 10	5×11 11	5×11 12	6.3×11 12	6.3×11 12	6.3×11 12	6.3×11 12		
0.68						5×11 12	5×11 13	5×11 14	6.3×11 14	6.3×11 15	6.3×11 15	6.3×11 15		
1						5×11 13	5×11 15	5×11 16	6.3×11 16	6.3×11 17	6.3×11 17	6.3×11 18	6.3×11 19	8×11.5 16
2.2						5×11 18	5×11 19	5×11 21	6.3×11 22	6.3×11 24	6.3×11 27	8×11.5 29	8×11.5 30	10×12.5 28
3.3						5×11 30	5×11 33	1 34	6.3×11 35	6.3×11 36	8×11.5 37	8×11.5 38	10×12.5 41	10×16 38
4.7				5×11 25	5×11 27	5×11 37	5×11 39	5×11 40	6.3×11 41	8×11.5 42	8×11.5 45	10×12.5 47	10×16 49	10×20 45
6.8				5×11 31	5×11 33	5×11 44	5×11 48	5×11 49	8×11.5 52	10×12.5 59	10×12.5 60	10×16 62	10×16 65	12.5×16 59
10			5×11 35	5×11 37	5×11 40	5×11 54	5×11 59	6.3×11 61	10×12.5 71	10×12.5 72	10×16 74	10×20 79	10×20 86	12.5×20 84
22		5×11 48	5×11 53	5×11 56	5×11 57	5×11 79	5×11 87	6.3×11 100	10×20 117	10×20 119	10×20 127	12.5×20 150	12.5×25 163	16×25 151
33	5×11 52	5×11 56	5×11 60	5×11 75	5×11 80	5×11 97	6.3×11 122	8×11.5 144	10×20 156	10×20 158	12.5×20 184	16×25 200	16×25 222	16×31.5 203
47	5×11 61	5×11 66	5×11 77	5×11 80	5×11 101	6.3×11 133	6.3×11 146	10×12.5 199	12.5×20 218	12.5×20 220	12.5×25 238	16×25 265	16×31.5 290	16×35.5 254
68	5×11 69	5×11 83	5×11 92	5×11 113	6.3×11 138	8×11.5 189	8×11.5 207	10×16 264	12.5×25 287	16×20 293	16×25 318	16×31.5 348	18×35.5 392	
100	5×11 90	5×11 100	5×11 119	6.3×11 159	6.3×11 168	8×11.5 229	10×12.5 251	10×20 349	12.5×25 360	16×25 386	16×31.5 422	18×31.5 450		
220	5×11 153	5×11 170	6.3×11 213	8×11.5 277	8×11.5 294	10×12.5 395	10×16 474	12.5×25 662	16×31.5 680	18×35.5 705	18×40 730			
330	6.3×11 216	6.3×11 239	8×11.5 308	8×11.5 340	10×12.5 419	10×16 529	10×20 633	16×20 810	18×35.5 863					
470	6.3×11 258	6.3×11 286	8×11.5 366	10×12.5 471	10×16 547	10×20 690	12.5×20 886	16×25 1072						
680	8×11.5 365	10×12.5 472	10×12.5 480	10×16 620	12.5×16 777	12.5×20 973	12.5×25 1160	18×31.5 1410						
1000	8×11.5 443	10×12.5 571	10×16 680	10×20 821	12.5×20 1023	12.5×25 1287	16×25 1565	18×40 2020						
2200	10×20 817	10×20 886	10×30 1170	12.5×25 1297	16×25 1497	16×35.5 1884								
3300	10×20 1032	12.5×20 1205	12.5×25 1389	16×25 1646	16×35.5 1950	18×35.5 2260								
4700	12.5×20 1280	12.5×25 1492	16×25 1740	16×31.5 2012	18×35.5 2335									
6800	12.5×25 1554	16×25 1824	16×31.5 2081	18×35.5 2452										
10000	16×25 1897	16×35.5 2201	18×35.5 2527											
15000	16×35.5 2344	18×35.5 2606												
22000	18×40 2787	← Case Size $\varnothing D \times L$ (mm) ← Rated Ripple Current (mA rms/105°C, 120Hz)												

RIPPLE CURRENT MULTIPLIERS**Frequency Multipliers**

Cap. (μF) \ Freq. (Hz)	120	1k	10k	50k	100k
0.1 ~ 6.8	1.00	1.75	2.30	2.40	2.50
10 ~ 68	1.00	1.50	1.75	1.77	1.80
100 ~ 1000	1.00	1.30	1.40	1.45	1.50
2200 ~ 22000	1.00	1.05	1.08	1.09	1.10