K01 TYPE -40°C +85°C 12000H

RoHS Compliant
Directive 2002/95/EC

- Surge-proof capacitor in aluminium can with insulation sleeve.
- Poles brought out to heavy duty screw terminals.
- To be mounted with ring clips or with threaded stud
- Very high CV for unit volume with low ESR.
- High ripple current.
- Excellent electricals data in small dimensions case size.

APPLICATIONS

Designed for professional power electronics. Switch mode power supplies, converters, filtering devices.

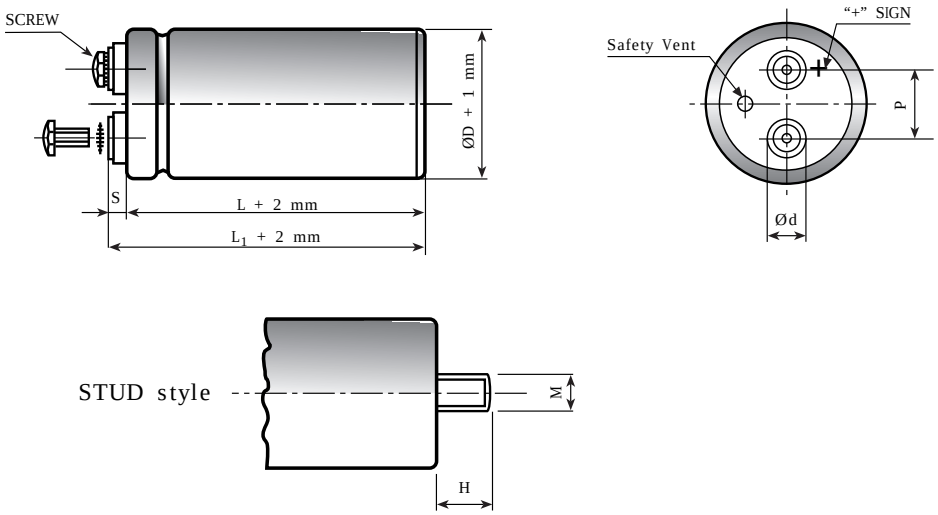


Diagram of dimensions (unit=mm)

ØD	d	P	M	H	SCREW
35	11	12.7	M 8	12	5MA x 9,5
51	18.5	22.7	M 12	16	5MA x 9,5
63	18.5	28.6	M 12	16	5MA x 9,5
76	18.5	31.8	M 12	16	5MA x 9,5
76	23.2	31.8	M 12	16	6MA x 10
90	23.2	31.8	M 12	16	6MA x 10

L_1	L_1 = L + 2.5 mm L_1 toll. - 0+3 mm	L_1 = L + 4.5 mm L_1 toll. - 1+3 mm
S	M5 = 5 - 0 + 1 mm From top of deck	M6 = 7 - 1 + 1 mm From top of deck

Temperature Range	Operating: -40°C +85°C [Environmental classification 40/85/56 IEC-68] Storage : Preferably below +25°C, not exceeding +40°C
Rated Voltage Range (V_r)	from 16V to 500V DC
Surge Voltage (V_p)	$V_p = 1.05\ V_r$ (V_r > 450V DC) $V_p = 1.15\ V_r$ ($V_r \leq$ 250V DC) $V_p = 1.10\ V_r$ (V_r > 250V DC)
Rated Capacitance Range	from 220 µF to 1500000 µF
Capacitance Tolerance	±20% at 100 Hz, 20°C [M class IEC-62] on request: -10% +30% at 100 Hz, 20°C [Q class IEC-62]
Leakage Current (I_L) (mA, 5 min, 20°C)	max $I_L = 0.006\ C_r\ V_r + 4$ µA Kendeil product limit: $I_L = 0.003\ C_r\ V_r$ At 85°C max $I_L = 0.04\ C_r\ V_r$ µA
Ripple current (I_r)	Refer to table at 85°C and 100Hz. For different temperature and frequency multiplier must be used as follows: FREQUENCY 50Hz 100Hz 500 Hz 1000Hz >10kHz MULTIPLIER 0.8 1.0 1.2 1.3 1.5 AMBIENT TEMP 35°C 45°C 55°C 65°C 75°C 85°C 95°C MULTIPLIER 2.2 2.1 1.8 1.6 1.4 1.0 0.5 Maximum internal temperature 98°C Due to the current load capability of the contact elements, the following limits must not be exceeded: CAPACITOR DIAMETER 35mm 51mm 63mm 76mm 90mm Maximum current 20A 30A 40A 50A 70A
Insulation Resistance	At 100V DC for 1 min is >100 MΩ across insulating sleeve and terminals.
Vibration Resistance	Frequency range: 10 Hz to 55 Hz, amplitude 0.75 mm Capacitor length ≤ 143 : max acceleration 10g for 3x2 h Capacitor length > 143 : max acceleration 5g for 3x0.5 h
Life test	After 2,000 hours application of rated voltage at 85°C capacitors meet characteristics aside Cap change ≤ 20% tan δ ≤ 200% Leakage current (I_L) < initial limit Impedance (Z) ≤ 200%
Shelf life	After leaving capacitors under no load for 500 hours at 85°C, when restored at 20°C meet specifications aside Cap change ≤ ±15% tan δ ≤ 150% Leakage current (I_L) < initial limit
Useful life	> 200000 h at 40°C > 12000 h at 85°C
Failure percentage Failure rate	≤ 1% (during useful life) ≤ 40 fit ($40\ 10^{-9}$/h ($V_r \leq$ 160V DC) ≤ 70 fit ($70\ 10^{-9}$/h (V_r > 160V DC)
Self inductance	Approx. 20 nH
Reference standards	CECC 30.300 IEC 60384-4 LONG LIFE GRADE

K01 TYPE STANDARD RATINGS

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z TYP m Ω 10 kHz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded	RATED VOLTAGE VDC
22000	35x60	0.35	18	16	6.6	K01016223__M0E060	16V
33000	35x60	0.40	15	13	9.2	K01016333__M0E060	
33000	35x79	0.40	15	13	10.2	K01016333__M0E079	
47000	35x79	0.55	13	12	10.8	K01016473__M0E079	
47000	51x79	0.55	13	12	12.5	K01016473__M0G079	
68000	51x79	0.60	12	11	15.7	K01016683__M0G079	
100000	51x79	0.80	10	11	16.5	K01016104__M0G079	
100000	51x105	0.80	10	10	18.7	K01016104__M0G079	
150000	51x105	1.10	10	9	19.5	K01016154__M0G105	
150000	63x105	1.10	10	9	21.5	K01016154__M0H105	
220000	63x105	1.50	8	8	22.4	K01016224__M0H105	
330000	63x105	1.90	8	8	23.3	K01016334__M0H105	
330000	76x105	1.90	8	8	25.0	K01016334__M0J105	
470000	76x105	1.90	5	5	28.5	K01016474__M0J105	
470000	76x143	1.90	5	5	32.0	K01016474__M0J143	
680000	76x143	2.50	4	4	32.5	K01016684__M0J143	
1000000	76x143	2.50	3	3	34.5	K01016105__M0J143	
1500000	90x220	3.00	3	3	48.7	K01016155__M0L220	

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z TYP m Ω 10 kHz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded	RATED VOLTAGE VDC
10000	35x60	0.25	27	21	5.9	K01025103__M0E060	25V
15000	35x60	0.28	16	12	9.3	K01025153__M0E060	
22000	35x79	0.35	18	16	11.8	K01025223__M0E079	
33000	35x79	0.40	15	14	12.1	K01025333__M0E079	
33000	51x79	0.40	15	14	13.3	K01025333__M0G079	
47000	51x79	0.50	12	10	15.7	K01025473__M0G079	
68000	51x79	0.60	10	9	16.4	K01025683__M0G079	
68000	51x105	0.60	10	9	18.7	K01025683__M0G105	
100000	63x105	0.70	10	9	19.5	K01025104__M0H105	
100000	51x105	0.70	10	9	21.5	K01025104__M0G105	
150000	63x105	1.00	9	9	22.0	K01025154__M0H105	
150000	76x105	1.00	9	9	23.5	K01025154__M0J105	
220000	76x105	1.50	9	9	24.2	K01025224__M0J105	
220000	76x143	1.50	9	9	28.5	K01025224__M0J105	
330000	76x143	2.00	9	9	30.5	K01025334__M0J143	
470000	76x214	2.00	5	5	35.6	K01025474__M0J214	

K01 TYPE STANDARD RATINGS

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z TYP m Ω 10 kHz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded	RATED VOLTAGE VDC
10000	35x60	0.20	18	12	6.5	K01040103__M0E060	40V
15000	35x60	0.25	13	10	7.4	K01040153__M0E060	
15000	35x79	0.25	13	10	8.6	K01040153__M0E079	
22000	35x79	0.30	16	14	8.9	K01040223__M0E079	
22000	51x79	0.30	16	14	10.4	K01040223__M0G079	
33000	51x79	0.35	15	13	13.5	K01040333__M0G079	
47000	51x79	0.40	10	9	14.2	K01040473__M0G079	
47000	51x105	0.40	10	9	15.1	K01040473__M0G105	
47000	63x105	0.40	10	9	17.6	K01040473__M0H105	
68000	51x105	0.50	10	8	18.2	K01040683__M0G105	
68000	63x105	0.50	10	8	19.5	K01040683__M0H105	
100000	63x105	0.60	9	8	21.2	K01040104__M0H105	
100000	76x75	0.70	8	8	21.0	K01040104__M0J075	
150000	76x105	0.90	9	8	25.7	K01040154__M0J105	
220000	76x143	1.00	6	6	31.5	K01040224__M0J143	
330000	76x214	1.20	5	5	38.5	K01040334__M0J214	

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z TYP m Ω 10 kHz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded	RATED VOLTAGE VDC
4700	35x60	0.20	33	30	5.6	K01050472__M0E060	50V
6800	35x60	0.20	25	24	7.0	K01050682__M0E060	
10000	35x60	0.20	21	20	10.0	K01050103__M0E060	
15000	35x79	0.25	17	15	11.3	K01050153__M0E079	
22000	51x79	0.30	16	13	13.1	K01050223__M0G079	
33000	51x105	0.35	15	13	16.0	K01050333__M0G105	
33000	63x105	0.35	15	13	17.5	K01050333__M0H105	
47000	51x105	0.40	12	10	16.2	K01050473__M0G105	
47000	63x105	0.40	12	10	18.3	K01050473__M0H105	
68000	63x105	0.60	12	9	18.0	K01050683__M0H105	
68000	76x105	0.60	12	9	22.1	K01050683__M0J105	
100000	76x105	0.90	8	8	23.8	K01050104__M0J105	
100000	76x143	0.90	8	8	25.8	K01050104__M0J143	
150000	76x143	1.00	6	6	31.5	K01050154__M0J143	

K01 TYPE STANDARD RATINGS

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z TYP m Ω 10 kHz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded	RATED VOLTAGE VDC
4700	35x60	0.15	29	25	6.2	K01063472__M0E060	63V
6800	35x60	0.18	21	20	7.0	K01063682__M0E060	
6800	35x79	0.18	21	20	8.2	K01063682__M0E079	
10000	35x79	0.20	21	20	8.7	K01063103__M0E079	
10000	51x79	0.20	18	16	10.1	K01063103__M0G079	
15000	51x79	0.25	15	13	11.1	K01063153__M0G079	
22000	51x79	0.30	13	11	12.4	K01063223__M0G079	
22000	51x105	0.30	13	11	14.6	K01063223__M0G105	
33000	51x105	0.35	11	10	15.6	K01063333__M0G105	
33000	63x105	0.35	11	10	17.9	K01063333__M0H105	
47000	51x105	0.45	10	9	15.8	K01063473__M0G105	
47000	63x105	0.45	11	10	18.8	K01063473__M0H105	
68000	76x105	0.70	11	10	25.7	K01063683__M0J105	
100000	76x105	0.70	8	8	31.5	K01063104__M0J105	
100000	76x143	0.70	8	8	34.5	K01063104__M0J143	
150000	76x143	0.95	6	6	36.1	K01063154__M0J143	

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z TYP m Ω 10 kHz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded	RATED VOLTAGE VDC
4700	35x60	0.15	29	25	5.4	K01075472__M0E060	75V
6800	35x79	0.18	20	20	8.5	K01075682__M0E079	
10000	51x79	0.20	18	16	11.0	K01075103__M0G079	
15000	51x105	0.25	15	13	12.7	K01075153__M0G105	
22000	51x105	0.30	12	11	15.2	K01075223__M0G105	
22000	63x105	0.30	12	11	15.2	K01075223__M0H105	
33000	63x105	0.35	11	10	18.5	K01075333__M0H105	
33000	76x105	0.35	11	10	18.5	K01075333__M0J105	
47000	76x105	0.45	10	10	22.1	K01075473__M0J105	
47000	76x143	0.45	10	10	22.1	K01075473__M0J143	
68000	76x143	0.80	10	10	26.0	K01075683__M0J143	
100000	76x143	0.95	8	8	34.9	K01075104__M0J143	

K01 TYPE STANDARD RATINGS

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z TYP m Ω 10 kHz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded	RATED VOLTAGE VDC
1500	35x60	0.15	84	65	4.0	K01100152__M0E060	100V
2200	35x60	0.15	57	47	5.0	K01100222__M0E060	
3300	35x60	0.15	48	39	5.3	K01100332__M0E060	
3300	35x79	0.15	48	39	6.8	K01100332__M0E079	
4700	35x79	0.15	30	26	7.5	K01100472__M0E079	
4700	51x79	0.15	30	26	10.0	K01100472__M0G079	
6800	51x79	0.20	23	20	11.1	K01100682__M0G079	
10000	51x79	0.20	16	14	11.9	K01100103__M0G079	
10000	51x105	0.20	16	14	13.9	K01100103__M0G105	
10000	63x105	0.20	16	14	14.5	K01100103__M0H105	
15000	51x105	0.25	13	12	14.8	K01100153__M0G105	
15000	63x105	0.25	13	12	17.5	K01100153__M0H105	
22000	63x105	0.25	12	12	18.2	K01100223__M0H105	
33000	76x105	0.25	10	10	23.1	K01100333__M0J105	
47000	76x143	0.30	10	9	30.2	K01100473__M0J143	
68000	76x143	0.30	8	8	36.5	K01100683__M0J143	
68000	76x214	0.50	6	5	39.5	K01100683__M0J214	

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z TYP m Ω 10 kHz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded	RATED VOLTAGE VDC
1000	35x79	0.10	98	90	4.0	K01160102__M0E079	160V
1500	51x79	0.10	62	71	5.3	K01160152__M0G079	
2200	51x79	0.10	50	43	7.0	K01160222__M0G079	
3300	51x105	0.12	35	30	8.6	K01160332__M0G105	
4700	51x105	0.12	25	25	10.9	K01160472__M0G105	
4700	63x105	0.12	25	25	10.9	K01160472__M0H105	
6800	51x105	0.12	21	22	11.4	K01160682__M0G105	
6800	63x105	0.12	20	22	13.0	K01160682__M0H105	
10000	76x105	0.15	13	12	17.4	K01160103__M0J105	
10000	76x143	0.15	13	12	17.4	K01160103__M0J143	
15000	76x143	0.15	13	12	20.9	K01160153__M0J143	
22000	76x143	0.20	10	10	26.4	K01160223__M0J143	
33000	76x214	0.20	8	8	34.1	K01160333__M0J214	

K01 TYPE STANDARD RATINGS

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z TYP m Ω 10 kHz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded	RATED VOLTAGE VDC
680	35X60	0.10	124	119	3.4	K01200681__M0E060	200V
1000	51x79	0.10	86	88	4.2	K01200102__M0G079	
1500	51x79	0.10	60	63	5.8	K01200152__M0G079	
2200	51x105	0.10	47	44	7.2	K01200222__M0G105	
3300	51x105	0.12	35	33	9.0	K01200332__M0G105	
3300	63x105	0.12	35	33	9.0	K01200332__M0H105	
4700	51x105	0.12	30	28	11.1	K01200472__M0G105	
4700	63x105	0.12	30	28	11.1	K01200472__M0H105	
6800	63x105	0.12	25	20	13.9	K01200682__M0H105	
6800	76x105	0.12	25	20	13.9	K01200682__M0J105	
10000	76x105	0.15	13	12	15.8	K01200103__M0J105	
10000	76x143	0.15	13	12	18.6	K01200103__M0J143	
15000	76x143	0.18	12	12	21.4	K01200153__M0J143	
22000	76x143	0.18	10	10	28.9	K01200223__M0J143	
33000	76x214	0.22	8	8	36.1	K01200333__M0J214	

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z TYP m Ω 10 kHz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded	RATED VOLTAGE VDC
470	35x60	0.10	211	200	2.8	K01250471__M0E060	250V
680	35x79	0.10	157	150	3.5	K01250681__M0E079	
1000	51x79	0.10	110	95	4.6	K01500102__M0G079	
1500	51x79	0.10	74	65	5.0	K01250152__M0G105	
1500	51x105	0.10	74	65	6.1	K01250152__M0G105	
2200	51x105	0.10	40	36	7.5	K01250222__M0G105	
3300	51x105	0.12	35	29	9.8	K01250332__M0G105	
3300	63x105	0.12	35	29	9.8	K01250332__M0H105	
4700	63x105	0.12	28	25	11.8	K01250472__M0H105	
4700	76x105	0.12	28	25	13.2	K01250472__M0J105	
6800	76x105	0.12	25	21	14.1	K01250682__M0J105	
10000	76x143	0.15	20	19	19.7	K01250103__M0J143	
15000	76x143	0.15	18	18	21.9	K01250153__M0J143	
22000	76x214	0.20	12	11	34.2	K01250223__M0J214	

K01 TYPE STANDARD RATINGS

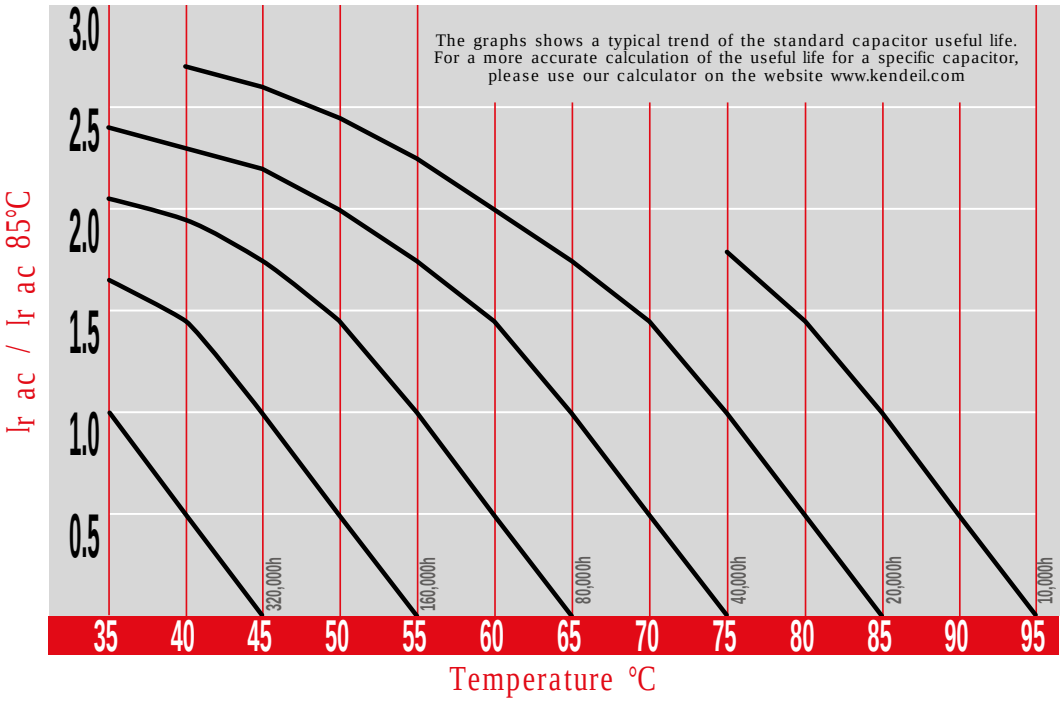
Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z TYP m Ω 10 kHz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded	RATED VOLTAGE VDC
470	35X60	0.10	170	136	3.3	K01350471__M0E060	350V
680	35X79	0.10	108	95	4.0	K01350681__M0E079	
1000	51x79	0.10	79	62	5.0	K01350102__M0G079	
1000	51x105	0.10	79	62	5.5	K01350102__M0G105	
1500	51x105	0.10	60	52	7.4	K01350152__M0G105	
2200	51x105	0.10	44	40	9.0	K01350222__M0G105	
2200	63x105	0.10	44	40	9.5	K01350222__M0H105	
3300	63x105	0.12	35	30	10.1	K01350332__M0H105	
3300	76x105	0.12	35	30	12.8	K01350332__M0J105	
4700	76x105	0.12	32	25	14.5	K01350472__M0J105	
4700	76x143	0.12	32	25	17.5	K01350472__M0J143	
5600	76x143	0.15	25	23	18.5	K01350562__M0J143	
6800	76x143	0.15	23	21	19.2	K01350682__M0J143	
10000	76x143	0.15	18	18	23.0	K01350103__M0J143	
10000	76x214	0.15	16	15	26.6	K01350103__M0J214	
15000	76x214	0.20	12	12	31.7	K01350153__M0J214	
22000	90x220	0.25	8	8	35.4	K01350223__M0L220	

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z TYP m Ω 10 kHz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded	RATED VOLTAGE VDC
220	35x60	0.10	455	375	2.1	K01400221__M0E060	400V
330	35x60	0.10	290	273	2.8	K01400331__M0E060	
470	35x60	0.10	160	149	3.0	K01400471__M0E060	
470	35x79	0.10	165	155	3.5	K01400471__M0E079	
680	51x79	0.10	120	115	4.7	K01400681__M0G079	
680	51x105	0.10	124	120	5.1	K01400681__M0G105	
1000	51x79	0.10	105	95	5.8	K01400102__M0G079	
1000	51x105	0.10	110	85	6.3	K01400102__M0G105	
1500	51x105	0.10	65	55	7.0	K01400152__M0G105	
1500	63x105	0.10	65	55	7.9	K01400152__M0H105	
2200	51x105	0.10	50	47	8.3	K01400222__M0G105	
2200	63x105	0.10	50	47	9.0	K01400222__M0H105	
2200	76x105	0.10	50	47	10.7	K01400222__M0J105	
3300	63x105	0.12	35	30	11.0	K01400332__M0H105	
3300	76x105	0.12	35	30	13.1	K01400332__M0J105	
3300	76x143	0.12	35	30	14.2	K01400332__M0J143	
4700	76x105	0.15	30	29	14.9	K01400472__M0J105	
4700	76x143	0.15	30	29	18.8	K01400472__M0J143	
6800	76x143	0.15	23	22	19.5	K01400682__M0J143	
10000	76x143	0.25	34	30	17.8	K01400103__M0J143	
10000	76x214	0.15	20	19	26.0	K01400103__M0J214	
15000	90x220	0.20	15	12	33.5	K01400153__M0L220	

K01 TYPE STANDARD RATINGS

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z TYP m Ω 10 kHz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded	RATED VOLTAGE VDC
220	35X60	0.10	360	300	2.0	K01450221__M0E060	450V
330	35X60	0.10	240	210	2.8	K01450331__M0E060	
470	51x79	0.10	200	179	4.0	K01450471__M0G079	
680	51X79	0.10	140	128	4.4	K01450681__M0G079	
680	51x105	0.10	140	128	5.0	K01450681__M0G105	
1000	51x79	0.10	100	88	4.8	K01450102__M0G079	
1000	51x105	0.10	100	88	6.4	K01450102__M0G105	
1500	51X105	0.10	67	55	7.1	K01450152__M0G105	
1500	63x105	0.10	67	55	8.0	K01450152__M0H105	
2200	63x105	0.10	60	55	9.0	K01450222__M0H105	
2200	76x105	0.10	60	47	11.2	K01450222__M0J105	
2200	76x143	0.10	60	47	12.5	K01450222__M0J143	
3300	76x105	0.12	35	30	11.2	K01450332__M0J105	
3300	76x143	0.12	35	30	12.9	K01450332__M0J143	
4700	76x143	0.15	32	30	15.0	K01450472__M0J143	
6800	76x143	0.15	25	22	19.2	K01450682__M0J143	
10000	76x143	0.25	34	30	17.8	K01450103__M0J143	
10000	76x214	0.20	20	19	23.1	K01450103__M0J214	
12000	76x214	0.25	15	12	29.8	K01450123__M0J214	
15000	90x220	0.20	14	12	32.6	K01450153__M0L220	

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP m Ω 100 Hz 20°C	Z TYP m Ω 10 kHz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded	RATED VOLTAGE VDC
1000	51x105	0.15	159	145	4.0	K01500102__M0G105	500V
1500	63x105	0.15	122	115	5.2	K01500152__M0H105	
2200	76x105	0.15	90	85	7.4	K01500222__M0J105	
2200	76x143	0.15	90	85	8.2	K01500222__M0J143	
3300	76x143	0.20	60	58	10.3	K01500332__M0J143	
4700	76x143	0.20	40	37	11.6	K01500472__M0J143	
6800	76x214	0.20	24	22	20.2	K01500682__M0J214	



The graphs shows a typical trend of the standard capacitor load life.
For a more accurate calculation of the load life for a specific capacitor, please use our calculator on the website www.kendeil.com or enquiry our technical service.