

- 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 and impedance.
- High ripple current capability. Extended temperature range.
- High level reliability with outstanding high frequency characteristics.

## APPLICATIONS

High professional power supplies.  
Switch power supplies, power converters, filtering devices, motor drive.

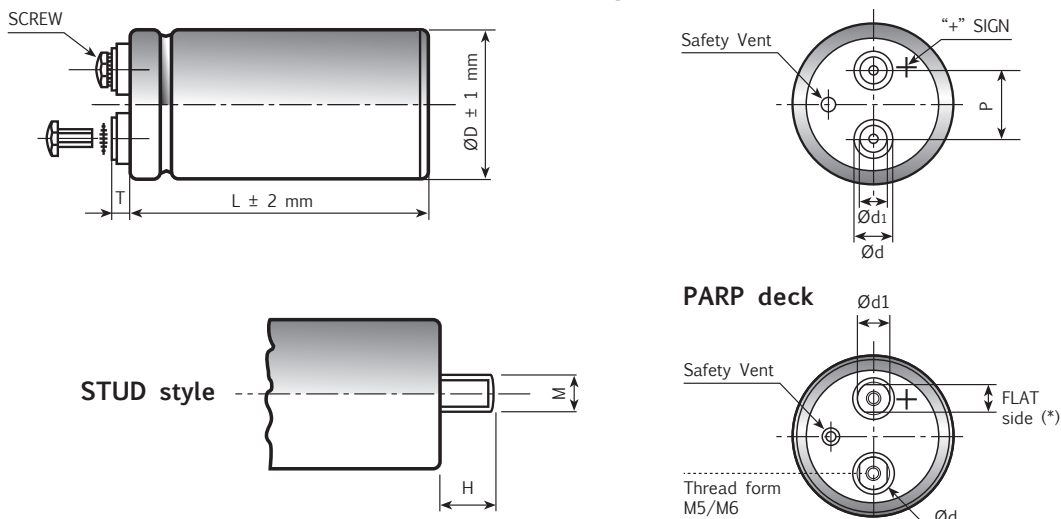


Diagram of dimensions (unit=mm) - Insert and screw threads: Metric (mm), UNF (inches)

ØD	d ±0.3	d1 ±0.3	P ±0.5	T ±2.0	STUD		INSERT	SCREW	INSERT STYLE CODE
					M	H			
35	11.6	7.9	12.7	6.5	M8	12	M5	5MA x 9.5	0
51	18.2	13	22.2	5	M12	16	M5	5MA x 9.5	H
63	18.2	13	28.5	5	M12	16	M5	5MA x 9.5	H
76	18.2	13	31.8	4.5	M12	16	M5	5MA x 9.5	H
76	18.2	13	31.8	6.5	M12	16	M5 long	5MA x 9.5	L
76	23.2	17.7	31.8	5	M12	16	M6	6MA x 10	6
90	23.2	17.7	31.8	5	M12	16	M6	6MA x 10	H
51	13	13(10)*	22.2	5	M12	16	PARP M5	5MA x 9.5	K
63	13	13(10)*	28.5	5	M12	16	PARP M5	5MA x 9.5	B
63	19	15(13)*	28.5	6	M12	16	PARP M5	5MA x 9.5	K
76	19	15(13)*	31.8	6	M12	16	PARP M5	5MA x 9.5	K
76	19	15(13)*	31.8	6	M12	16	PARP M6	6MA x 10	Q
90	19	15(13)*	31.8	6	M12	16	PARP M6	6MA x 10	Q
35	11.6	7.9	12.7	6.5	M12	16	UNF 10-32 High Post	10-32 x 3/8"	U
63	17.3	17.3	28.5	2.5	M12	16	UNF 1/4-28 Low Post	1/4-28 x 3/8"	W
63	17.3	17.3	28.5	6	M12	16	UNF 1/4-28 High Post	1/4-28 x 1/2"	R
63	7.9	7.9	28.5	2	M12	16	UNF 10-32 Low Post	10-32 x 1/4"	Z
63	12	7.9	28.5	6.5	M12	16	UNF 10-32 High Post	10-32 x 3/8"	U
76	17.3	17.3	31.8	2.5	M12	16	UNF 1/4-28 Low Post	1/4-28 x 3/8"	W
76	17.3	17.3	31.8	6	M12	16	UNF 1/4-28 High Post	1/4-28 x 1/2"	R
76	7.9	7.9	31.8	2	M12	16	UNF 10-32 Low Post	10-32 x 1/4"	Z
76	12	7.9	31.8	6.5	M12	16	UNF 10-32 High Post	10-32 x 3/8"	U

Note: (\*) quote on the PARP deck of the flat side (PARP = Protection Against Reverse Polarity).

## K02 TYPE SPECIFICATIONS

<b>Temperature Range</b>	Operating: -40°C +105°C Storage : Preferably below +25°C, not exceeding +40°C	[Environmental classification 40/105/56 IEC-68]																																																								
<b>Rated Voltage Range (V<sub>r</sub>)</b>	from 16V to 500V DC																																																									
<b>Surge Voltage (V<sub>p</sub>)</b>	V <sub>p</sub> = 1.15 V <sub>r</sub> (V <sub>r</sub> ≤ 250V DC) V <sub>p</sub> = 1.10 V <sub>r</sub> (V <sub>r</sub> > 250V DC)																																																									
<b>Rated Capacitance Range</b>	from 100 μF to 470,000 μF																																																									
<b>Capacitance Tolerance</b>	±20% at 100 Hz, 20°C [M class IEC-62] on request: -10% +30% at 100 Hz, 20°C [Q class IEC-62]																																																									
<b>Leakage Current (I<sub>L</sub>)</b> (mA, 5 min, 20°C)	max I <sub>L</sub> = 0.003 C <sub>r</sub> V <sub>r</sub> + 4 μA At 85°C max I <sub>L</sub> = 0.02 C <sub>r</sub> V <sub>r</sub> μA																																																									
<b>Ripple current (I<sub>r</sub>)</b>	Refer to table at 105°C and 100Hz. For different temperature and frequency multiplier must be used as follows:																																																									
	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: left;">FREQUENCY</td> <td>50Hz</td> <td>100Hz</td> <td>500 Hz</td> <td>1000Hz</td> <td>&gt;10kHz</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: left;">MULTIPLIER</td> <td>0.8</td> <td>1.0</td> <td>1.2</td> <td>1.3</td> <td>1.5</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: left;">AMBIENT TEMP</td> <td>35°C</td> <td>45°C</td> <td>55°C</td> <td>65°C</td> <td>75°C</td> <td>85°C</td> <td>95°C</td> <td>105°C</td> <td>110°C</td> <td></td> </tr> <tr> <td style="text-align: left;">MULTIPLIER</td> <td>3.0</td> <td>2.80</td> <td>2.60</td> <td>2.40</td> <td>2.20</td> <td>1.80</td> <td>1.5</td> <td>1.0</td> <td>0.5</td> <td></td> </tr> </table> <p>Maximum internal temperature 108°C</p> <p>Due to the current load capability of the contact elements, the following limits must not be exceeded:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: left;">CAPACITOR DIAMETER</td> <td>35mm</td> <td>51mm</td> <td>63mm</td> <td>76mm</td> <td>90mm</td> </tr> <tr> <td style="text-align: left;">Maximum current</td> <td>20A</td> <td>30A</td> <td>40A</td> <td>50A</td> <td>70A</td> </tr> </table>		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	105°C	110°C		MULTIPLIER	3.0	2.80	2.60	2.40	2.20	1.80	1.5	1.0	0.5		CAPACITOR DIAMETER	35mm	51mm	63mm	76mm	90mm	Maximum current	20A	30A	40A	50A	70A
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	105°C	110°C																																																	
MULTIPLIER	3.0	2.80	2.60	2.40	2.20	1.80	1.5	1.0	0.5																																																	
CAPACITOR DIAMETER	35mm	51mm	63mm	76mm	90mm																																																					
Maximum current	20A	30A	40A	50A	70A																																																					
<b>Insulation Resistance</b>	At 100V DC for 1 min is >100 MΩ across insulating sleeve and terminals.																																																									
<b>Vibration Resistance</b>	Frequency range: 10 Hz to 55 Hz Capacitor length ≤ 143 : max acceleration 0.75mm or 10g for 3x2 h Capacitor length > 143 : max acceleration 0.35mm or 5g for 3x0.5 h																																																									
<b>Withstand voltage</b> (between terminals bundled and plate)	2500 VAC for 1 min																																																									
<b>Life test</b>	After 2,000 hours application of rated voltage at 105°C capacitors meet characteristics aside	Cap change ≤ 10% tan δ ≤ 130% Leakage current (I <sub>L</sub> ) < initial limit Impedance (Z) ≤ 130%																																																								
<b>Shelf life</b>	After leaving capacitors under no load for 500 hours at 105°C when restored at 20°C meet specifications aside	Cap change ≤ ±15% tan δ ≤ 150% Leakage current (I <sub>L</sub> ) < initial limit																																																								
<b>Useful life</b> (V <sub>n</sub> , Temp rated I ripple applied)	250000 h at 40°C 5000 h at 105°C																																																									
<b>Failure percentage</b> <b>Failure rate</b>	≤ 1% (during useful life) ≤ 30 fit (30 10 <sup>-9</sup> /h) (V <sub>r</sub> ≤ 160V DC) ≤ 40 fit (40 10 <sup>-9</sup> /h) (V <sub>r</sub> > 160V DC)																																																									
<b>Self inductance</b>	Approx. 20 nH																																																									
<b>Damp heat test</b> (V <sub>n</sub> applied, 2000 hours, 85% RH)	Stable electrical parameters in humidity ambient condition 85°C																																																									
<b>Electrolyte</b>	All the capacitors of this series have self-extinguishing electrolyte in accordance with IEC EN 60695-11-10																																																									
<b>Reference standards</b>	CECC 30.300 IEC 60384-4 LONG LIFE GRADE																																																									

## K02 TYPE STANDARD RATINGS

**RATED  
VOLTAGE  
VDC**

**16V**

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP mΩ 100 Hz 20°C	Z TYP mΩ 10 kHz 20°C	Ir a.c. A max 100 Hz 105°C	PART NUMBER stud and insert style excluded
10000	35x60	0,25	25	24	3,3	K02016103_M0E060
15000	35x60	0,3	16	16	3,5	K02016153_M0E060
22000	35x60	0,35	12	12	4,4	K02016223_M0E060
33000	35x60	0,4	12	12	4,6	K02016333_M0E060
47000	35x79	0,55	9	10	7,5	K02016473_M0E079
68000	51x79	0,6	8	8	11,9	K02016683_M0G079
82000	51x79	0,7	8	8	12,1	K02016823_M0G079
100000	51x79	0,8	8	8	12,2	K02016104_M0G079
100000	51x105	0,8	8	8	12,3	K02016104_M0G105
150000	63x105	1,1	7	7	15,4	K02016154_M0H105
220000	76x105	1,5	7	7	18,8	K02016224_M0J105
330000	76x105	1,9	7	7	19,7	K02016334_M0J105
470000	76x143	2	6	6	22,5	K02016474_M0J143
1000000	90x220	2,6	3	3	29,4	K02016105_M0L220

**RATED  
VOLTAGE  
VDC**

**25V**

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP mΩ 100 Hz 20°C	Z TYP mΩ 10 kHz 20°C	Ir a.c. A max 100 Hz 105°C	PART NUMBER stud and insert style excluded
10000	35x60	0,2	23	18	3,8	K02025103_M0E060
15000	35x60	0,25	16	12	4,8	K02025153_M0E060
22000	35x60	0,3	12	12	7	K02025223_M0E060
33000	51x79	0,35	10	10	8,9	K02025333_M0G079
47000	51x79	0,4	9	9	11,6	K02025473_M0G079
68000	51x79	0,5	8	8	12	K02025683_M0G079
68000	51x105	0,5	8	8	13	K02025683_M0G105
100000	63x105	0,6	8	8	15,8	K02025104_M0H105
150000	76x105	0,9	7	7	18,3	K02025154_M0J105
220000	76x143	1,3	7	7	21,6	K02025224_M0J143
330000	76x143	2	7	7	23,8	K02025334_M0J143
680000	90x220	3	3	3	38,1	K02025684_M0L220

## K02 TYPE STANDARD RATINGS

**RATED  
VOLTAGE  
VDC**

**40V**

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP mΩ 100 Hz 20°C	Z TYP mΩ 10 kHz 20°C	Ir a.c. A max 100 Hz 105°C	PART NUMBER stud and insert style excluded
4700	35x60	0,2	31	29	3,3	K02040472_M0E060
6800	35x60	0,2	23	20	3,9	K02040682_M0E060
10000	35x60	0,2	16	12	4,4	K02040103_M0E060
10000	35x79	0,2	16	12	4,8	K02040103_M0E079
15000	35x79	0,2	12	10	5,4	K02040153_M0E079
22000	35x79	0,25	10	10	6,6	K02040223_M0E079
22000	51x79	0,25	10	10	8,9	K02040223_M0G079
33000	51x79	0,35	10	10	9,9	K02040333_M0G079
33000	51x105	0,35	10	10	11,2	K02040333_M0G105
47000	51x105	0,45	9	9	13,8	K02040473_M0G105
47000	63x105	0,45	9	9	14,5	K02040473_M0H105
68000	63x105	0,6	7	7	15	K02040683_M0H105
68000	76x105	0,6	7	7	15,9	K02040683_M0J105
100000	63x105	0,9	7	7	17,2	K02040104_M0H105
100000	76x105	0,9	7	7	19,1	K02040104_M0J105
100000	76x143	0,9	7	7	21	K02040104_M0J143
150000	76x105	1,3	7	7	18,9	K02040154_M0J105
150000	76x143	1,3	7	7	25,9	K02040154_M0J143
220000	76x143	1,5	5	5	25,7	K02040224_M0J143
470000	90x220	2	3	3	36,3	K02040474_M0L220

**RATED  
VOLTAGE  
VDC**

**63V**

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP mΩ 100 Hz 20°C	Z TYP mΩ 10 kHz 20°C	Ir a.c. A max 100 Hz 105°C	PART NUMBER stud and insert style excluded
47000	63x105	0,45	9	8	12,4	K02063473_M0H105
47000	76x105	0,45	9	8	17,7	K02063473_M0J105
47000	76x143	0,45	9	8	19	K02063473_M0J143
2200	35x60	0,15	72	60	2,5	K02063222_M0E060
3300	35x60	0,15	48	39	3,5	K02063332_M0E060
4700	35x60	0,15	33	28	4,2	K02063472_M0E060
6800	35x60	0,18	18	13	5,2	K02063682_M0E060
6800	35x79	0,18	18	13	6,3	K02063682_M0E079
10000	35x79	0,2	15	11	7,6	K02063103_M0E079
10000	51x79	0,2	15	11	8,2	K02063103_M0G079
15000	51x79	0,25	15	13	8,9	K02063153_M0G079
15000	51x105	0,25	13	10	18	K02063153_M0G105
22000	51x79	0,3	11	10	9,5	K02063223_M0G079
22000	51x105	0,3	11	10	11,8	K02063223_M0G105
22000	63x105	0,3	11	10	13,5	K02063223_M0H105
33000	51x105	0,35	11	10	11,1	K02063333_M0G105
33000	63x105	0,35	11	10	14,8	K02063333_M0H105
33000	76x105	0,35	11	8	16,6	K02063333_M0J105

## K02 TYPE STANDARD RATINGS

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP mΩ 100 Hz 20°C	Z TYP mΩ 10 kHz 20°C	I <sub>r</sub> a.c. A max 100 Hz 105°C	PART NUMBER stud and insert style excluded
68000	63x105	0,7	8	8	18,6	K02063683_M0H105
68000	76x105	0,45	8	8	20,1	K02063683_M0J105
68000	76x143	0,7	8	8	22,8	K02063683_M0J143
100000	76x143	0,7	8	8	24,1	K02063104_M0J143
150000	76x143	0,7	5	5	25,2	K02063154_M0J143
220000	90x220	0,8	5	5	30	K02063224_M0L220

**RATED  
VOLTAGE  
VDC**

**63V**

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP mΩ 100 Hz 20°C	Z TYP mΩ 10 kHz 20°C	I <sub>r</sub> a.c. A max 100 Hz 105°C	PART NUMBER stud and insert style excluded
1000	35x60	0,15	110	100	2,9	K02100102_M0E060
1500	35x60	0,15	80	73	3,2	K02100152_M0E060
2200	35x60	0,15	59	53	4,4	K02100222_M0E060
3300	35x60	0,15	33	32	3,9	K02100332_M0E060
3300	35x79	0,15	33	31	5,8	K02100332_M0E079
4700	51x79	0,15	25	22	7,2	K02100472_M0G079
6800	51x79	0,15	19	17	8,9	K02100682_M0G079
6800	51x105	0,15	19	17	8,9	K02100682_M0G105
8200	51x79	0,15	18	15	9,7	K02100822_M0G079
10000	51x79	0,15	17	15	10,1	K02100103_M0G079
10000	51x105	0,15	17	15	11	K02100103_M0G105
10000	63x105	0,15	17	15	12,5	K02100103_M0H105
15000	51x105	0,15	12	12	13,2	K02100153_M0G105
15000	63x105	0,15	12	12	15,1	K02100153_M0H105
22000	63x105	0,18	10	9	15,3	K02100223_M0H105
22000	76x105	0,18	10	9	16,5	K02100223_M0J105
33000	76x105	0,22	8	8	18,7	K02100333_M0J105
33000	76x143	0,22	8	8	20,9	K02100333_M0J143
47000	76x143	0,25	5	5	23,4	K02100473_M0J143
68000	90x220	0,25	3	3	32,8	K02100683_M0L220

**RATED  
VOLTAGE  
VDC**

**100V**

## K02 TYPE STANDARD RATINGS

**RATED  
VOLTAGE  
VDC**

**160V**

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP mΩ 100 Hz 20°C	Z TYP mΩ 10 kHz 20°C	Ir a.c. A max 100 Hz 105°C	PART NUMBER stud and insert style excluded
1000	35x79	0,11	105	90	3,3	K02160102_M0E079
1500	35x79	0,11	65	60	3,1	K02160152_M0E079
1500	51x79	0,11	65	60	4,1	K02160152_M0G079
2200	51x79	0,11	46	43	4,6	K02160222_M0G079
2200	51x105	0,11	46	43	4,8	K02160222_M0G105
3300	51x79	0,11	32	30	5,5	K02160332_M0G079
3300	63x105	0,11	32	30	6,8	K02160332_M0H105
4700	63x105	0,11	27	25	8,5	K02160472_M0H105
6800	63x105	0,13	23	20	8,8	K02160682_M0H105
6800	76x105	0,13	23	20	11,3	K02160682_M0J105
10000	76x105	0,14	22	20	14,2	K02160103_M0J105
10000	76x143	0,15	17	16	14,9	K02160103_M0J143
15000	76x143	0,2	16	12	17,2	K02160153_M0J143
22000	76x214	0,2	11	10	19	K02160223_M0J214
47000	90x220	0,3	6	5	24,9	K02160473_M0L220

**RATED  
VOLTAGE  
VDC**

**200V**

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP mΩ 100 Hz 20°C	Z TYP mΩ 10 kHz 20°C	Ir a.c. A max 100 Hz 105°C	PART NUMBER stud and insert style excluded
680	35x60	0,11	133	98	2,5	K02200681_M0E060
820	35x60	0,11	97	72	3,2	K02200821_M0E060
1000	51x79	0,11	85	64	4,6	K02200102_M0G079
1500	51x79	0,11	65	58	4,4	K02200152_M0G079
1500	51x105	0,11	65	58	5,1	K02200152_M0G105
2200	51x79	0,11	60	53	5,1	K02200222_M0G079
2200	51x105	0,11	60	53	6,1	K02200222_M0G105
3300	51x105	0,11	40	35	6,8	K02200332_M0G105
3300	63x105	0,11	40	35	7,9	K02200332_M0H105
4700	63x105	0,11	25	23	8,7	K02200472_M0H105
5600	63x105	0,11	22	20	9,8	K02200562_M0H105
6800	63x105	0,11	18	16	8,7	K02200682_M0H105
6800	76x105	0,11	18	16	11,8	K02200682_M0J105
8200	76x105	0,11	17	15	12,8	K02200822_M0J105
10000	76x105	0,13	15	13	14,5	K02200103_M0J105
10000	76x143	0,15	13	12	16	K02200103_M0J143
15000	76x143	0,2	12	11	17,3	K02200153_M0J143
22000	76x214	0,2	11	10	18,9	K02200223_M0J214
33000	90x220	0,25	6	5	28,8	K02200333_M0L220

## K02 TYPE STANDARD RATINGS

**RATED  
VOLTAGE  
VDC**

**250V**

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP mΩ 100 Hz 20°C	Z TYP mΩ 10 kHz 20°C	I <sub>r</sub> a.c. A max 100 Hz 105°C	PART NUMBER stud and insert style excluded
470	35x60	0,11	211	193	2	K02250471_M0E060
680	35x60	0,11	130	98	2,1	K02250681_M0E060
680	35x79	0,11	130	98	2,2	K02250681_M0E079
820	35x60	0,11	120	90	2,4	K02250821_M0E060
820	35x79	0,11	120	91	2,8	K02250821_M0E079
1000	51x79	0,11	110	85	4,1	K02250102_M0G079
1500	51x79	0,11	74	65	4,5	K02250152_M0G079
1500	51x105	0,11	74	65	5,4	K02250152_M0G105
2200	51x105	0,11	41	39	6,8	K02250222_M0G105
3300	51x105	0,11	30	26	7	K02250332_M0G105
3300	63x105	0,11	30	26	8,2	K02250332_M0H105
4700	63x105	0,11	18	17	9,5	K02250472_M0H105
4700	76x105	0,11	18	17	11,9	K02250472_M0J105
5600	63x105	0,11	24	19	10,2	K02250562_M0H105
5600	76x105	0,11	17	16	13,2	K02250562_M0J105
6800	76x105	0,15	16	14	13,3	K02250682_M0J105
6800	76x143	0,15	15	14	14,3	K02250682_M0J143
8200	76x143	0,15	14	14	15,2	K02250822_M0J143
10000	76x143	0,2	14	13	16	K02250103_M0J143
15000	76x214	0,2	12	10	17,4	K02250153_M0J214
22000	76x214	0,22	11	10	20,2	K02250223_M0J214
33000	90x220	0,24	6	5	27,1	K02250333_M0L220

**RATED  
VOLTAGE  
VDC**

**350V**

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP mΩ 100 Hz 20°C	Z TYP mΩ 10 kHz 20°C	I <sub>r</sub> a.c. A max 100 Hz 105°C	PART NUMBER stud and insert style excluded
330	35x60	0,11	255	196	1,8	K02350331_M0E060
470	35x79	0,11	170	141	2,1	K02350471_M0E079
680	35x79	0,11	128	97	2,8	K01350681_M0E079
680	51x79	0,11	128	96	3,8	K02350681_M0G079
1000	51x79	0,11	110	85	4	K02350102_M0G079
1000	51x105	0,11	85	68	5	K02350102_M0G105
1500	51x79	0,11	74	66	5	K02350152_M0G079
1500	51x105	0,11	59	52	5,6	K02350152_M0G105
1500	63x105	0,11	59	52	6,4	K02350152_M0H105
2200	63x105	0,11	44	40	7,2	K02350222_M0H105
2200	76x105	0,11	44	40	8,1	K02350222_M0J105
3300	76x105	0,11	26	23	10,2	K02350332_M0J105
4700	76x105	0,11	18	17	11,1	K02350472_M0J105
4700	76x143	0,11	18	16	13,5	K02350472_M0J143

## K02 TYPE STANDARD RATINGS

**RATED  
VOLTAGE  
VDC**

**350V**

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP mΩ 100 Hz 20°C	Z TYP mΩ 10 kHz 20°C	Ir a.c. A max 100 Hz 105°C	PART NUMBER stud and insert style excluded
5600	76x105	0,12	18	16	11,5	K02350562_M0J105
5600	76x143	0,12	18	17	14,3	K02350562_M0J143
6800	76x143	0,15	16	15	15,1	K02350682_M0J143
8200	76x143	0,15	16	15	16,5	K02350822_M0J143
8200	76x143	0,15	16	15	17,8	K02350822_M0J143
10000	76x214	0,2	15	14	19,9	K02350103_M0J214
20000	90x220	0,2	10	10	26	K02350203_M0L220

**RATED  
VOLTAGE  
VDC**

**400V**

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP mΩ 100 Hz 20°C	Z TYP mΩ 10 kHz 20°C	Ir a.c. A max 100 Hz 105°C	PART NUMBER stud and insert style excluded
220	35x60	0,11	350	280	1,4	K02400221_M0E060
330	35x60	0,11	250	210	2,2	K02400331_M0E060
470	51x79	0,11	170	150	2,8	K02400471_M0G079
680	51x79	0,11	110	100	3,2	K02400681_M0G079
820	51x79	0,11	108	82	3,2	K02400821_M0G079
1000	51x79	0,11	95	82	3,4	K02400102_M0G079
1000	51x105	0,11	95	82	4,1	K02400102_M0G105
1500	51x105	0,11	64	53	4,7	K02400152_M0G105
1500	63x105	0,11	64	53	5,8	K02400152_M0H105
2200	63x105	0,11	45	53	6	K02400222_M0H105
2200	76x105	0,11	45	39	7,3	K02400222_M0J105
3300	76x105	0,11	28	25	8,3	K02400332_M0J105
3300	76x143	0,11	28	25	11,1	K02400332_M0J143
4700	76x143	0,11	24	23	12,8	K02400472_M0J143
5600	76x143	0,12	21	17	12,9	K02400562_M0J143
6800	76x214	0,15	19	15	15,5	K02400682_M0J214
8200	76x214	0,15	18	16	18	K02400822_M0J214
10000	90x220	0,2	16	14	22,5	K02400103_M0L220
15000	90x220	0,22	12	10	23	K02400153_M0L220



## K02 TYPE STANDARD RATINGS

**RATED  
VOLTAGE  
VDC**

**450V**

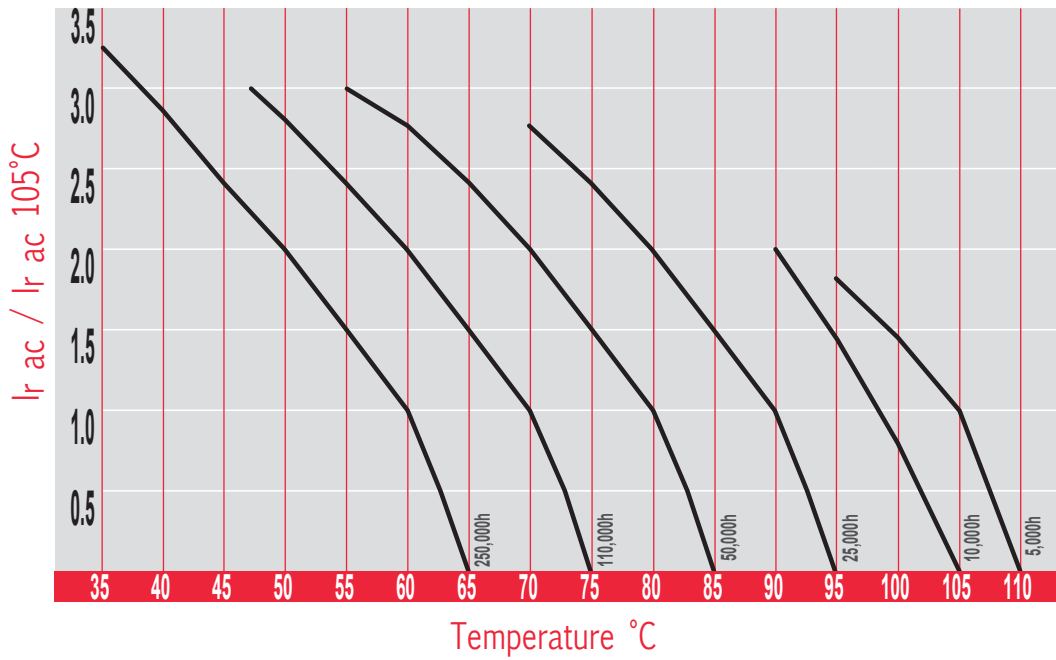
Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP mΩ 100 Hz 20°C	Z TYP mΩ 10 kHz 20°C	Ir a.c. A max 100 Hz 105°C	PART NUMBER stud and insert style excluded
100	35x60	0,11	800	650	1,2	K02450101_M0E060
150	35x60	0,11	550	490	1,6	K02450151_M0E060
220	35x60	0,11	370	310	1,8	K02450221_M0E060
330	35x79	0,11	240	210	2,4	K02450331_M0E079
470	51x79	0,11	200	179	3	K02450471_M0G079
680	51x79	0,11	140	128	3,1	K02450681_M0G079
680	51x105	0,11	140	128	4,2	K02450681_M0G105
1000	51x105	0,11	100	88	4,4	K02450102_M0G105
1000	63x105	0,11	100	88	5,3	K02450102_M0H105
1500	63x105	0,11	63	57	5,7	K02450152_M0H105
1500	76x105	0,11	63	57	6,6	K02450152_M0J105
2200	76x105	0,11	48	38	7,6	K02450222_M0J105
2200	76x143	0,11	48	38	8,8	K02450222_M0J143
3300	76x143	0,15	35	30	10,4	K02450332_M0J143
4700	76x143	0,15	28	25	10,9	K02450472_M0J143
5600	76x143	0,15	21	17	11,2	K0245056_2_M0J143
6800	76x214	0,15	21	16	15,5	K02450682_M0J214
8200	76x214	0,15	18	16	19,2	K02450822_M0J214
10000	90x220	0,2	16	14	22,5	K02450103_M0L220
12000	90x220	0,2	15	13	23	K02450123_M0L220

**RATED  
VOLTAGE  
VDC**

**500V**

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP mΩ 100 Hz 20°C	Z TYP mΩ 10 kHz 20°C	Ir a.c. A max 100 Hz 105°C	PART NUMBER stud and insert style excluded
1000	51x105	0,11	100	88	4	K02500102_M0G105
1500	63x105	0,11	64	58	5,4	K02500152_M0H105
1500	63x105	0,11	64	58	5,4	K02500152_M0H105
1800	63x105	0,11	61	53	5,7	K02500182_M0H105
2200	76x105	0,11	60	47	6,9	K02500222_M0J105
2700	76x143	0,13	40	32	8,7	K02500272_M0J143
3300	76x143	0,15	37	31	9,4	K02500332_M0J143
3900	76x143	0,15	31	28	10,1	K02500392_M0J143
4700	76x143	0,15	29	26	10,3	K02500472_M0J143
5600	76x214	0,15	23	19	14,3	K02500562_M0J214
6800	76x214	0,15	21	16	14,8	K02500682_M0J214
6800	90x145	0,15	21	16	13,3	K02500682_M0L145
8200	90x220	0,15	19	15	18,6	K02500822_M0L220
10000	90x220	0,2	17	15	20	K02500103_M0L220

## USEFUL LIFE K02



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](http://www.kendeil.com) or enquiry our technical service.

**PLEASE TO CONTACT OUR TECHNICAL SERVICE FOR MORE INFORMATION OR SPEC-IN ANALYSIS.**