

K71 TYPE -40°C +85°C 15000H

RoHS Compliant

- Design optimized for extremely high miniaturization.
- Surge-proof capacitor in aluminium can with insulation sleeve.
- To be mounted with ring clips or with threaded stud.

APPLICATIONS

Designed for professional application.
Switch mode power suppliers, high ripple current converters, motor drives.

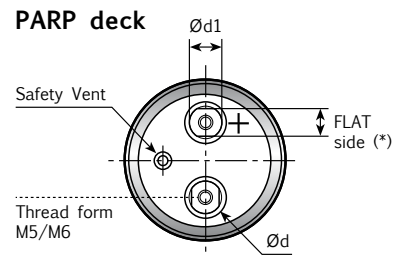
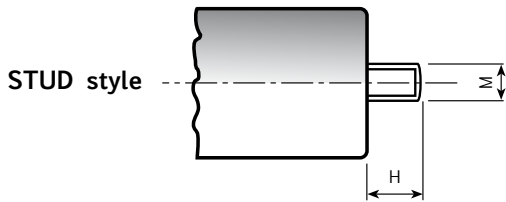
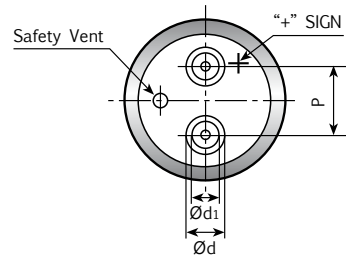
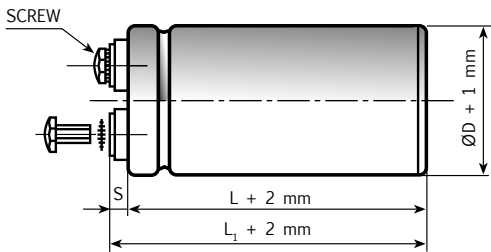


Diagram of dimensions (unit=mm)
Insert and screw threads: Metric (mm), UNF (inches)

ØD	d	d1	P	STUD		INSERT	SCREW	L1	-L[-1+3]	S[-1+1]	INSERT STYLE CODE
				M	H						
35	11	7.9	12.7	M8	12	M5	5MA x 9.5	2.5		5	0
51	18.5	13	22.7	M12	16	M5	5MA x 9.5	2.5		5	H
63	18.5	13	28.6	M12	16	M5	5MA x 9.5	2.5		5	H
63	17.3	17.3	28.6	M12	16	UNF 1/4-28 Low Post	1/4-28 x 3/8"	3		4	W
63	17.3	17.3	28.6	M12	16	UNF 1/4-28 High Post	1/4-28 x 1/2"	6		7	R
63	7.9	7.9	28.6	M12	16	UNF 10-32 Low Post	10-32 x 1/4"	2		2.5	Z
63	12	7.9	28.6	M12	16	UNF 10-32 High Post	10-32 x 3/8"	6		7	U
76	18.5	13	31.8	M12	16	M5	5MA x 9.5	2.5		5	H
76	18.5	13	31.8	M12	16	M5	5MA x 9.5	2.5		7	L
76	23.2	17.7	31.8	M12	16	M6	6MA x 10	4.5		7	6
76	17.3	17.3	31.8	M12	16	UNF 1/4-28 Low Post	1/4-28 x 3/8"	3		4	W
76	17.3	17.3	31.8	M12	16	UNF 1/4-28 High Post	1/4-28 x 1/2"	6		7	R
76	7.9	7.9	31.8	M12	16	UNF 10-32 Low Post	10-32 x 1/4"	2		2.5	Z
76	12	7.9	31.8	M12	16	UNF 10-32 High Post	10-32 x 3/8"	6		7	U
90	23.2	17.7	31.8	M12	16	M6	6MA x 10	4.5		7	H
51	13	13 (10)*	22.7	M12	16	PARP M5	5MA x 9.5	6		7	K
63	15	15 (13)*	28.6	M12	16	PARP M5	5MA x 9.5	6		7	K
76	19	15 (13)*	31.8	M12	16	PARP M5	5MA x 9.5	6		7	K
76	19	15 (13)*	31.8	M12	16	PARP M6	6MA x 10	6		7	Q
90	19	15 (13)*	31.8	M12	16	PARP M6	6MA x 10	6		7	Q

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

SPECIFICATIONS

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 350V to 450V DC																																							
Surge Voltage (V_p)	V _p = 1.10 V _r																																							
Rated Capacitance Range	from 2200 µF to 36000 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																																							
Ripple current (I_r)	Refer to table at 85°C and 100Hz : <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: left;">FREQUENCY</td> <td>50Hz</td> <td>100Hz</td> <td>500Hz</td> <td>1000Hz</td> <td>>10kHz</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> </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> </tr> <tr> <td style="text-align: left;">MULTIPLIER</td> <td>2.2</td> <td>2.1</td> <td>1.8</td> <td>1.6</td> <td>1.4</td> <td>1.0</td> <td>0.5</td> </tr> </table> <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>51mm</td> <td>63mm</td> <td>76mm</td> <td>90mm</td> </tr> <tr> <td style="text-align: left;">Maximum current</td> <td>30A</td> <td>40A</td> <td>50A</td> <td>70A</td> </tr> </table>		FREQUENCY	50Hz	100Hz	500Hz	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	CAPACITOR DIAMETER	51mm	63mm	76mm	90mm	Maximum current	30A	40A	50A	70A
FREQUENCY	50Hz	100Hz	500Hz	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																																	
CAPACITOR DIAMETER	51mm	63mm	76mm	90mm																																				
Maximum current	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																																							
Withstand voltage (between terminals bundled and plate)	2500 VAC for 1 min																																							
Life test	After 2,000 hours application of rated voltage at 85°C capacitors meet characteristics aside	Cap change ≤ 10% tan δ ≤ 130% Leakage current (I _L) < initial limit Impedance (Z) ≤ 130%																																						
Shelf life	After leaving capacitors under no load for 2000 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 (85°C, V_n, I_r applied)	> 15.000 h at 85°C																																							
Operation up to 105°C with voltage derating 0,88 x V rated																																								
Failure percentage Failure rate	≤ 1% (during useful life) ≤ 33 fit (33 10 ⁻⁹ /h)																																							
Self inductance	Approx. 20 nH																																							
Damp heat test (V_n applied, 2000 hours, 85% RH)	Stable electrical parameters in humidity ambient condition 85°C																																							
Electrolyte	All the capacitors of this series have self-extinguishing electrolyte in accordance with IEC EN 60695-11-10																																							
Reference standards	CECC 30.300 IEC 60384-4 LONG LIFE GRADE																																							

K71 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	Ir a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded
3300	51x79	0.09	25	20	9.00	K71350332_M0G079
3500	51x79	0.09	24	17	9.05	K71350352_M0G079
4700	51x105	0.09	17	13	11.60	K71350472_M0G105
6800	63x105	0.09	15	11	17.60	K71350682_M0H105
7600	63x105	0.09	14	10	18.00	K71350762_M0H105
10000	76x105	0.10	12	11	22.20	K71350103_M0J105
11000	76x105	0.10	12	11	22.30	K71350113_M0J105
16000	90x105	0.11	10	8	26.10	K71350163_M0L105
17000	76x143	0.11	9	8	30.80	K71350173_M0J143
24000	76x214	0.11	7	5	44.00	K71350243_M0J214
24000	90x145	0.11	7	5	35.90	K71350243_M0L145
36000	90x220	0.13	5	4	51.30	K71350363_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	Ir a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded
2200	51x79	0.09	42	33	8.21	K71400222_M0G079
2900	51x79	0.09	38	30	8.64	K71400292_M0G079
3300	51x105	0.09	29	22	10.80	K71400332_M0G105
3900	51x105	0.09	28	19	11.10	K71400392_M0G105
4700	63x79	0.09	21	17	9.97	K71400472_M0H079
5600	63x105	0.09	19	15	16.60	K71400562_M0H105
6200	63x105	0.09	18	14	17.10	K71400622_M0H105
6800	76x105	0.09	17	13	18.60	K71400682_M0J105
8200	76x105	0.09	16	12	19.00	K71400822_M0J105
9200	76x105	0.09	14	11	21.20	K71400922_M0J105
13000	76x143	0.10	9	8	29.30	K71400133_M0J143
13000	90x105	0.10	10	9	25.20	K71400133_M0L105
20000	76x214	0.11	8	7	41.90	K71400203_M0J214
20000	90x145	0.11	8	7	34.50	K71400203_M0L145
30000	90x220	0.13	6	5	49.50	K71400303_M0L220

**RATED
VOLTAGE
VDC**

400V

K71 TYPE STANDARD RATINGS

Cap μF	$\varnothing \times \text{L}$ mm	Tan δ MAX 100 Hz 20°C	ESR TYP $\text{m}\Omega$ 100 Hz 20°C	Z TYP $\text{m}\Omega$ 10 kHz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded
2200	51x79	0.09	42	33	8.21	K71420222_M0G079
2500	51x79	0.09	40	22	8.42	K71420252_M0G079
3300	51x105	0.09	29	22	10.80	K71420332_M0G105
4700	63x79	0.09	21	17	9.97	K71420472_M0H079
5600	63x105	0.09	19	15	16.60	K71420562_M0H105
6800	76x105	0.09	17	13	18.60	K71420682_M0J105
8200	76x105	0.09	16	12	19.00	K71420822_M0J105
12000	76x143	0.09	9	8	28.60	K71420123_M0J143
12000	90x105	0.09	9	8	24.50	K71420123_M0L105
15000	90x145	0.09	8.5	7	32.60	K71420153_M0L145
18000	76x214	0.10	8	7	40.90	K71420183_M0J214
23000	90x220	0.13	7	6	46.80	K71420233_M0L220

**RATED
VOLTAGE
VDC**

420V

Cap μF	$\varnothing \times \text{L}$ mm	Tan δ MAX 100 Hz 20°C	ESR TYP $\text{m}\Omega$ 100 Hz 20°C	Z TYP $\text{m}\Omega$ 10 kHz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded
2200	51x79	0.09	43	34	8.07	K71450222_M0G079
3100	51x105	0.09	32	24	10.40	K71450312_M0G105
4700	63x105	0.09	23	19	15.80	K71450472_M0H105
5600	76x105	0.09	21	18	17.60	K71450562_M0J105
6800	76x105	0.09	18	12	17.70	K71450682_M0J105
10000	90x105	0.09	14	11	22.90	K71450103_M0L105
11000	76x143	0.09	12	10	27.30	K71450113_M0J143
12000	76x214	0.09	11	9	39.10	K71450123_M0J214
15000	90x145	0.09	9	8	32.60	K71450153_M0L145
23000	90x220	0.13	7	6	46.80	K71450233_M0L220

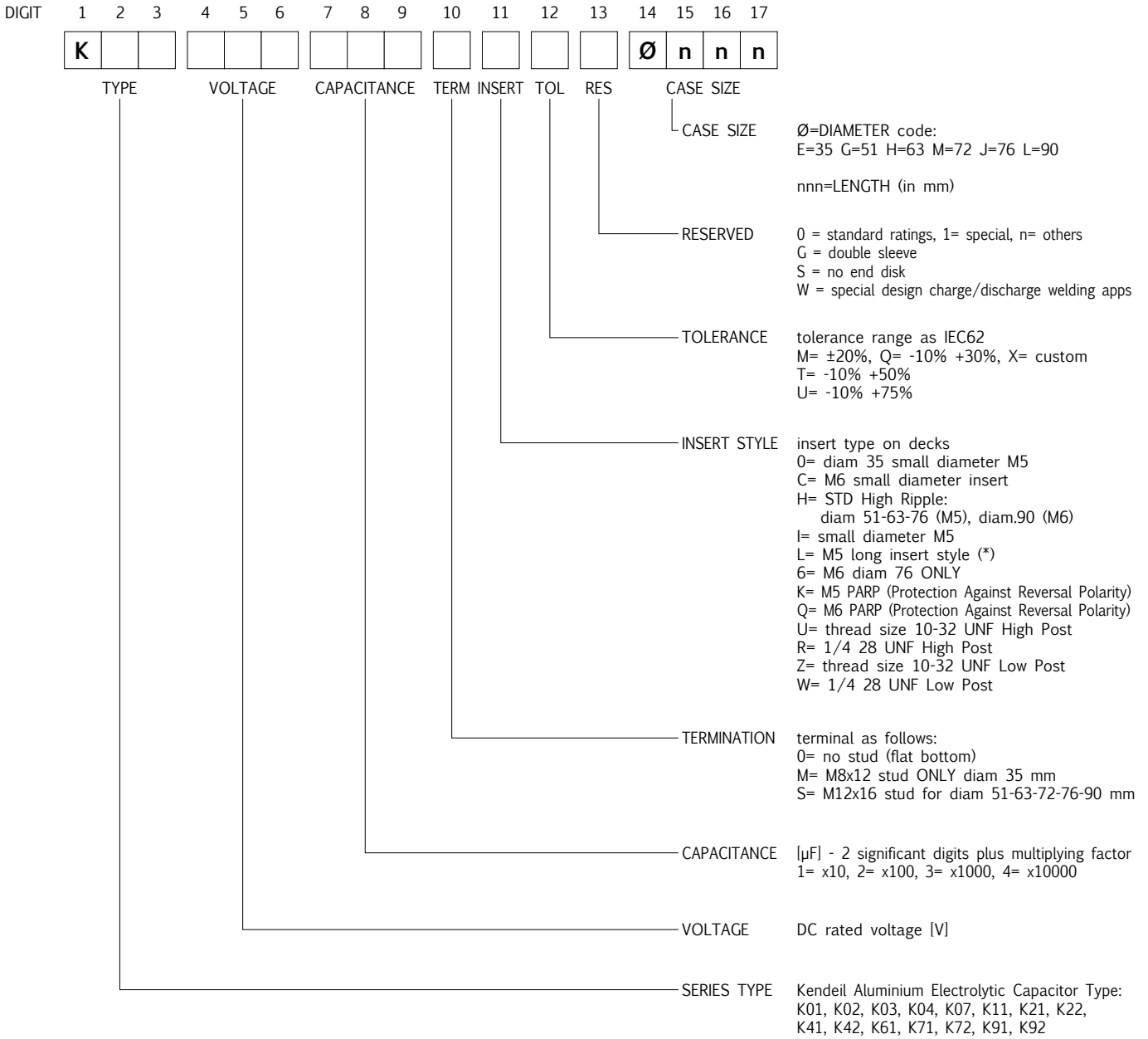
**RATED
VOLTAGE
VDC**

450V

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

PART NUMBER SYSTEM FOR SCREW TYPE CAPACITORS

New PART-NUMBER CODE in use since Sep 2010. Total length is 17 digits.
Please see examples below and have a reference code from the standard ratings capacitors pages.



EXAMPLES

K	0	1	1	0	0	2	2	3	0	H	M	0	H	1	0	5	K01 100V 22000µF, Hi ripple, -20%+20%, 63x105
K	0	1	0	6	3	2	2	3	S	H	Q	0	G	1	0	5	K01 63V 22000µF, stud M12x16, Hi rip. -10%+30%, 51x105
K	0	2	0	4	0	1	0	4	0	H	M	0	J	1	4	3	K02 40V 100000µF, Hi ripple, -20%+20%, 76x143

Specifications subject to change without notice

(*) Note for INSERT STYLE digit_11

M5 long insert style dedicated to not insulated bus bar (+2 mm height versus STD High Ripple code)