

# K41 TYPE -40°C +85°C 15000H

RoHS Compliant

- Surge-proof capacitor in aluminium can with insulation sleeve.
- To be mounted with ring clips or with threaded stud.
- Design optimized for long term vibration stress, traction market.
- Octagonal can shape.

## APPLICATIONS

Designed for professional application under high mechanical stress.

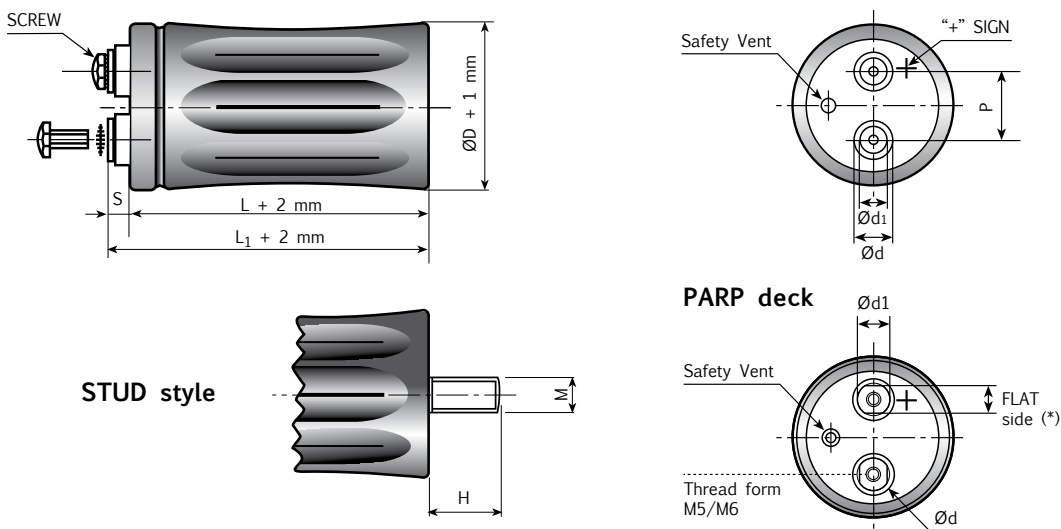


Diagram of dimensions (unit=mm)  
Insert and screw threads: Metric (mm), UNF (inches)

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

<b>Temperature Range</b>	Operating: -40°C +85°C Storage : Preferably below +25°C, not exceeding +40°C	[Environmental classification 40/85/56 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> = 1.05 V <sub>r</sub> (V <sub>r</sub> > 450V DC) 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 220 µF to 1500000 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>) (mA, 5 min, 20°C)</b>	max I <sub>L</sub> = 0.006 C <sub>r</sub> V <sub>r</sub> + 4 µA At 85°C max I <sub>L</sub> = 0.04 C <sub>r</sub> V <sub>r</sub> µA	Kendeil product limit: I <sub>L</sub> = 0.003 C <sub>r</sub> V <sub>r</sub>																																								
<b>Ripple current (I<sub>r</sub>)</b>	Refer to table at 85°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> </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> </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> <tr> <td style="text-align: left;">Maximum internal temperature</td> <td colspan="7">98°C</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	MULTIPLIER	2.2	2.1	1.8	1.6	1.4	1.0	0.5	Maximum internal temperature	98°C						
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MULTIPLIER	0.8	1.0	1.2	1.3	1.5																																					
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Maximum internal temperature	98°C																																									
	Due to the current load capability of the contact elements, the following limits must not be exceeded:																																									
	<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>		CAPACITOR DIAMETER	35mm	51mm	63mm	76mm	90mm	Maximum current	20A	30A	40A	50A	70A																												
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, amplitude 0.75 mm Capacitor length ≤ 143 : max acceleration 10g for 3x2 h Capacitor length > 143 : max acceleration 5g for 3x0.5 h Centrifugal acceleration 20g for 48 hours																																									
<b>Withstand voltage (between terminals bundled and plate)</b>	2500 VAC for 1 min																																									
<b>Life test</b>	After 2,000 hours application of rated voltage at 85°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 85°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 (V<sub>n</sub>, Temp rated I ripple applied)</b>	> 200000 h at 40°C > 12000 h at 85°C for V <sub>r</sub> ≤ 100V and for V <sub>r</sub> ≥ 500V > 15000 h at 85°C for 100V < V <sub>r</sub> < 500V																																									
<b>Failure percentage Failure rate</b>	≤ 1% (during useful life) ≤ 25 fit (25 10 <sup>-9</sup> /h) (V <sub>r</sub> ≤ 160V DC) ≤ 33 fit (33 10 <sup>-9</sup> /h) (V <sub>r</sub> > 160V DC)																																									
<b>Self inductance</b>	Approx. 20 nH																																									
<b>Damp heat test (V<sub>n</sub> applied, 2000 hours, 85% RH)</b>	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																																									

## K41 TYPE STANDARD RATINGS

Cap $\mu\text{F}$	$\varnothing \times L$ mm	Tan $\delta$ MAX 100 Hz 20°C	ESR TYP m $\Omega$ 100 Hz 20°C	Z TYP m $\Omega$ 10 kHz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded
22000	35x60	0.35	18	16	6.6	K41016223__M0E060
33000	35x79	0.40	15	13	10.2	K41016333__M0G079
47000	51x79	0.55	13	12	12.5	K41016473__M0G079
68000	51x79	0.60	12	11	15.7	K41016683__M0G079
100000	51x79	0.80	10	11	16.5	K41016104__M0G079
100000	51x105	0.80	10	10	18.7	K41016104__M0G105
150000	51x105	1.10	10	9	19.5	K41016154__M0G105
150000	63x105	1.10	10	9	21.5	K41016154__M0H105
220000	63x105	1.50	8	8	22.4	K41016224__M0H105
330000	63x105	1.90	8	8	23.3	K41016334__M0H105
330000	76x105	1.90	8	8	25.0	K41016334__M0J105
470000	76x105	1.90	5	5	28.5	K41016474__M0J105
470000	76x143	1.90	5	5	32.0	K41016474__M0J143
680000	76x143	2.50	4	4	32.5	K41016684__M0J143
1000000	76x214	2.50	3	3	44.5	K41016105__M0J214
1500000	90x220	3.00	3	3	48.7	K41016155__M0L220

**RATED  
VOLTAGE  
VDC**

**16V**

Cap $\mu\text{F}$	$\varnothing \times L$ mm	Tan $\delta$ MAX 100 Hz 20°C	ESR TYP m $\Omega$ 100 Hz 20°C	Z TYP m $\Omega$ 10 kHz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded
10000	35x60	0.25	27	21	5.9	K41025103__M0E060
15000	35x60	0.28	16	12	9.3	K41025153__M0E060
22000	35x79	0.35	18	16	11.8	K41025223__M0E079
33000	35x79	0.40	15	14	12.1	K41025333__M0E079
33000	51x79	0.40	15	14	13.3	K41025333__M0G079
47000	51x79	0.50	12	10	15.7	K41025473__M0G079
68000	51x79	0.60	10	9	16.4	K41025683__M0G079
68000	51x105	0.60	10	9	18.7	K41025683__M0G105
100000	51x105	0.70	10	9	19.5	K41025104__M0G105
100000	63x105	0.70	10	9	21.5	K41025104__M0H105
150000	63x105	1.00	9	9	22.0	K41025154__M0H105
150000	76x105	1.00	9	9	23.5	K41025154__M0J105
220000	76x105	1.50	9	9	24.2	K41025224__M0J105
220000	76x143	1.50	9	9	28.5	K41025224__M0J143
330000	76x143	2.00	9	9	30.5	K41025334__M0J143
470000	76x214	2.00	5	5	35.6	K41025474__M0J214

**RATED  
VOLTAGE  
VDC**

**25V**

## K41 TYPE STANDARD RATINGS

**RATED  
VOLTAGE  
VDC**

**40V**

Cap $\mu\text{F}$	$\varnothing \times L$ mm	Tan $\delta$ MAX 100 Hz 20°C	ESR TYP m $\Omega$ 100 Hz 20°C	Z TYP m $\Omega$ 10 kHz 20°C	I <sub>r</sub> a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded
10000	35x60	0.20	18	12	6.5	K41040103__M0E060
15000	35x60	0.25	13	10	7.4	K41040153__M0E060
15000	35x79	0.25	13	10	8.6	K41040153__M0E079
22000	35x79	0.30	16	14	8.9	K41040223__M0E079
22000	51x79	0.30	16	14	10.4	K41040223__M0G079
33000	51x79	0.35	15	13	13.5	K41040333__M0G079
47000	51x79	0.40	10	9	14.2	K41040473__M0G079
47000	51x105	0.40	10	9	15.1	K41040473__M0G105
47000	63x105	0.40	10	9	17.6	K41040473__M0H105
68000	51x105	0.50	10	8	18.2	K41040683__M0G105
68000	63x105	0.50	10	8	19.5	K41040683__M0H105
100000	63x105	0.60	9	8	21.2	K41040104__M0H105
150000	76x105	0.90	9	8	25.7	K41040154__M0J105
220000	76x143	1.00	6	6	31.5	K41040224__M0J143
330000	76x214	1.20	5	5	38.5	K41040334__M0J214

**RATED  
VOLTAGE  
VDC**

**50V**

Cap $\mu\text{F}$	$\varnothing \times L$ mm	Tan $\delta$ MAX 100 Hz 20°C	ESR TYP m $\Omega$ 100 Hz 20°C	Z TYP m $\Omega$ 10 kHz 20°C	I <sub>r</sub> a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded
4700	35x60	0.20	33	30	5.6	K41050472__M0E060
6800	35x60	0.20	25	24	7.0	K41050682__M0E060
10000	35x60	0.20	21	20	10.0	K41050103__M0E060
15000	35x79	0.25	17	15	11.3	K41050153__M0E079
22000	51x79	0.30	16	13	13.1	K41050223__M0G079
33000	51x105	0.35	15	13	16.0	K41050333__M0G105
33000	63x105	0.35	15	13	17.5	K41050333__M0H105
47000	51x105	0.40	12	10	16.2	K41050473__M0G105
47000	63x105	0.40	12	10	18.3	K41050473__M0H105
68000	63x105	0.60	12	9	18.0	K41050683__M0H105
68000	76x105	0.60	12	9	22.1	K41050683__M0J105
100000	76x105	0.90	8	8	23.8	K41050104__M0J105
100000	76x143	0.90	8	8	25.8	K41050104__M0J143
150000	76x143	1.00	6	6	31.5	K01050154__M0J143

## K41 TYPE STANDARD RATINGS

Cap $\mu\text{F}$	$\varnothing \times L$ mm	Tan $\delta$ MAX 100 Hz 20°C	ESR TYP m $\Omega$ 100 Hz 20°C	Z TYP m $\Omega$ 10 kHz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded
4700	35x60	0.15	29	25	6.2	K41063472__M0E060
6800	35x60	0.18	21	20	7.0	K41063682__M0E060
6800	35x79	0.18	21	20	8.2	K41063682__M0E079
10000	35x79	0.20	21	20	8.7	K41063103__M0E079
10000	51x79	0.20	18	16	10.1	K41063103__M0G079
15000	51x79	0.25	15	13	11.1	K41063153__M0G079
22000	51x79	0.30	13	11	12.4	K41063223__M0G079
22000	51x105	0.30	13	11	14.6	K41063223__M0G105
33000	51x105	0.35	11	10	15.6	K41063333__M0G105
33000	63x105	0.35	11	10	17.9	K41063333__M0H105
47000	63x105	0.45	11	10	18.8	K41063473__M0H105
68000	76x105	0.50	11	10	25.7	K41063683__M0J105
100000	76x105	0.55	8	8	31.5	K41063104__M0J105
100000	76x143	0.55	8	8	34.5	K41063104__M0J143
150000	76x143	0.60	6	6	36.1	K41063154__M0J143

**RATED  
VOLTAGE  
VDC**

**63V**

Cap $\mu\text{F}$	$\varnothing \times L$ mm	Tan $\delta$ MAX 100 Hz 20°C	ESR TYP m $\Omega$ 100 Hz 20°C	Z TYP m $\Omega$ 10 kHz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded
4700	35x60	0.15	29	25	5.4	K41075472__M0E060
6800	35x79	0.18	20	20	8.5	K41075682__M0E079
10000	51x79	0.20	18	16	11.0	K41075103__M0G079
15000	51x105	0.25	15	13	12.7	K41075153__M0G105
22000	51x105	0.30	12	11	15.2	K41075223__M0G105
22000	63x105	0.30	12	11	16.2	K41075223__M0H105
33000	63x105	0.35	11	10	16.8	K41075333__M0H105
33000	76x105	0.35	11	10	18.5	K41075333__M0J105
47000	76x105	0.45	10	10	20.1	K41075473__M0J105
47000	76x143	0.45	10	10	22.1	K41075473__M0J143
68000	76x143	0.60	10	10	26.0	K41075683__M0J143
100000	76x143	0.60	8	8	34.9	K41075104__M0J143

**RATED  
VOLTAGE  
VDC**

**75V**

## K41 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
1500	35x60	0.15	84	65	4.0	K41100152__M0E060
2200	35x60	0.15	57	47	5.0	K41100222__M0E060
3300	35x60	0.15	48	39	5.3	K41100332__M0E060
3300	35x79	0.15	48	39	6.8	K41100332__M0E079
4700	35x79	0.15	30	26	7.5	K41100472__M0E079
4700	51x79	0.15	30	26	10.0	K41100472__M0G079
6800	51x79	0.20	23	20	11.1	K41100682__M0G079
10000	51x79	0.20	16	14	11.9	K41100103__M0G079
10000	51x105	0.20	16	14	13.9	K41100103__M0G105
10000	63x105	0.20	16	14	14.5	K41100103__M0H105
15000	51x105	0.25	13	12	14.8	K41100153__M0G105
15000	63x105	0.25	13	12	17.5	K41100153__M0H105
22000	63x105	0.25	12	12	18.2	K41100223__M0H105
33000	76x105	0.25	10	10	23.1	K41100333__M0J105
47000	76x143	0.30	10	9	30.2	K41100473__M0J143
68000	76x143	0.30	8	8	36.5	K41100683__M0J143
68000	76x214	0.40	6	5	39.5	K41100104__M0J214

**RATED  
VOLTAGE  
VDC**

**100V**

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
1000	35x79	0.10	98	90	4.0	K41160102__M0E079
1500	51x79	0.10	62	71	5.3	K41160152__M0G079
2200	51x79	0.10	50	43	7.0	K41160222__M0G079
3300	51x105	0.12	35	30	8.6	K41160332__M0G105
4700	51x105	0.12	25	25	10.9	K41160472__M0G105
4700	63x105	0.12	25	25	11.9	K41160472__M0H105
6800	63x105	0.12	20	22	13.0	K41160682__M0H105
10000	76x105	0.15	13	12	17.4	K41160103__M0J105
10000	76x143	0.15	13	12	19.4	K41160103__M0J143
15000	76x143	0.15	11	10	20.9	K41160153__M0J143
22000	76x143	0.20	10	10	26.4	K41160223__M0J143
33000	76x214	0.20	8	8	34.1	K41160333__M0J214

**RATED  
VOLTAGE  
VDC**

**160V**

## K41 TYPE STANDARD RATINGS

Cap $\mu\text{F}$	$\varnothing \times L$ mm	Tan $\delta$ MAX 100 Hz 20°C	ESR TYP m $\Omega$ 100 Hz 20°C	Z TYP m $\Omega$ 10 kHz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded
680	35X60	0.10	124	119	3.4	K41200681__M0E060
1000	51x79	0.10	86	88	4.2	K41200102__M0G079
1500	51x79	0.10	60	63	5.8	K41200152__M0G079
2200	51x105	0.10	40	37	7.2	K41200222__M0G079
3300	51x105	0.12	32	30	9.0	K41200332__M0G105
3300	63x105	0.12	31	29	10.2	K41200332__M0H105
4700	51x105	0.12	28	26	10.4	K41200472__M0G105
4700	63x105	0.12	27	25	11.1	K41200472__M0H105
5600	63x105	0.12	21	18	12.1	K41200562__M0H105
6800	63x105	0.12	20	16	13.9	K41200682__M0H105
6800	76x105	0.12	19	15	14.3	K41200682__M0J105
8200	76x105	0.12	16	14	14.8	K41200822__M0J105
10000	76x105	0.15	13	12	15.8	K41200103__M0J105
10000	76x143	0.15	13	12	18.6	K41200103__M0J143
15000	76x143	0.18	12	12	21.4	K41200153__M0J143
22000	76x143	0.18	9	9	28.9	K41200223__M0J143
33000	76x214	0.22	8	8	36.1	K41200333__M0J214

**RATED  
VOLTAGE  
VDC**

**200V**

Cap $\mu\text{F}$	$\varnothing \times L$ mm	Tan $\delta$ MAX 100 Hz 20°C	ESR TYP m $\Omega$ 100 Hz 20°C	Z TYP m $\Omega$ 10 kHz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded
470	35x60	0.10	211	200	2.8	K41250471__M0E060
680	35x79	0.10	127	121	3.5	K41250681__M0E079
1000	51x79	0.10	110	95	4.5	K41500102__M0G079
1500	51x79	0.10	64	56	5.0	K41250152__M0G079
2200	51x105	0.10	40	36	7.5	K41250222__M0G105
3300	51x105	0.12	31	26	9.8	K41250332__M0G105
3300	63x105	0.12	30	25	11.0	K41250332__M0H105
4700	63x105	0.12	24	21	11.8	K41250472__M0H105
4700	76x105	0.12	20	18	13.2	K41250472__M0J105
5600	76x105	0.12	17	16	13.8	K41250562__M0J105
6800	76x105	0.12	15	13	14.1	K41250682__M0J105
8200	76x143	0.12	14	13	16.0	K41250822__M0J143
10000	76x143	0.13	13	12	19.7	K41250103__M0J143
15000	76x143	0.13	11	11	21.9	K41250153__M0J143
22000	76x214	0.14	10	9	34.2	K41250223__M0J214

**RATED  
VOLTAGE  
VDC**

**250V**

## K41 TYPE STANDARD RATINGS

Cap $\mu\text{F}$	$\varnothing \times L$ mm	Tan $\delta$ MAX 100 Hz 20°C	ESR TYP m $\Omega$ 100 Hz 20°C	Z TYP m $\Omega$ 10 kHz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded
470	35X79	0.10	108	95	4.0	K41350471__M0E079
680	35X79	0.10	108	95	4.0	K41350681__M0E079
1000	51x79	0.10	79	62	5.0	K41350102__M0G079
1000	51x105	0.10	79	62	5.5	K41350102__M0G105
1500	51x105	0.10	60	52	7.4	K41350152__M0G105
2200	51x105	0.10	44	40	9.0	K41350222__M0G105
2200	63x105	0.10	37	34	9.5	K41350222__M0H105
3300	63x105	0.12	26	22	10.1	K41350332__M0H105
3300	76x105	0.12	26	22	12.8	K41350332__M0J105
4700	76x105	0.12	17	16	14.5	K41350472__M0J105
4700	76x143	0.12	17	16	17.5	K41350472__M0J143
5600	76x143	0.12	17	16	18.5	K41350562__M0J143
6800	76x143	0.12	16	15	19.2	K41350682__M0J143
8200	76x143	0.12	16	15	20.7	K41350822__M0J143
10000	76x214	0.14	15	14	26.6	K41350103__M0J214
15000	76x214	0.15	14	14	31.7	K41350153__M0J214
22000	90x220	0.20	13	13	35.4	K41350223__M0L220

**RATED  
VOLTAGE  
VDC**

**350V**

Cap $\mu\text{F}$	$\varnothing \times L$ mm	Tan $\delta$ MAX 100 Hz 20°C	ESR TYP m $\Omega$ 100 Hz 20°C	Z TYP m $\Omega$ 10 kHz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded
220	35x60	0.10	350	288	2.1	K41400221__M0E060
330	35x60	0.10	290	273	2.8	K41400331__M0E060
470	35x79	0.10	165	155	3.5	K41400471__M0E079
680	51x79	0.10	120	115	4.7	K41400681__M0G079
680	51x105	0.10	124	120	5.1	K41400681__M0G105
1000	51x79	0.10	105	95	5.8	K41400102__M0G079
1000	51x105	0.10	110	85	6.3	K41400102__M0G105
1500	51x105	0.10	65	55	7.0	K41400152__M0G105
1500	63x105	0.10	65	55	7.9	K41400152__M0H105
2200	63x105	0.10	50	47	9.0	K41400222__M0H105
2200	76x105	0.10	50	47	10.7	K41400222__M0J105
3300	63x105	0.12	35	30	11.0	K41400332__M0H105
3300	76x105	0.12	35	30	13.1	K41400332__M0J105
3300	76x143	0.12	35	30	14.2	K41400332__M0J143
4700	76x105	0.15	30	29	14.9	K41400472__M0J105
4700	76x143	0.15	30	29	18.8	K41400472__M0J143
5600	76x143	0.15	26	25	19.0	K41400562__M0J143
6800	76x143	0.15	20	18	19.5	K41400682__M0J143
10000	76x214	0.15	20	19	26.0	K41400103__M0J214
15000	90x220	0.20	15	12	33.5	K41400153__M0L220

**RATED  
VOLTAGE  
VDC**

**400V**



## K41 TYPE STANDARD RATINGS

Cap $\mu\text{F}$	$\varnothing \times L$ mm	Tan $\delta$ MAX 100 Hz 20°C	ESR TYP m $\Omega$ 100 Hz 20°C	Z TYP m $\Omega$ 10 kHz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded
470	51x79	0.10	200	179	4.0	K41450471__M0G079
680	51X79	0.10	140	128	4.4	K41450681__M0G079
680	51x105	0.10	140	128	5.0	K41450681__M0G105
1000	51x79	0.10	100	88	4.8	K41450102__M0G079
1000	51x105	0.10	100	88	6.4	K41450102__M0G105
1500	51X105	0.10	67	55	7.1	K41450152__M0G105
1500	63x105	0.10	67	55	8.0	K41450152__M0H105
2200	63x105	0.10	60	55	9.0	K41450222__M0H105
2200	76x105	0.10	60	47	11.2	K41450222__M0J105
2200	76x143	0.10	60	47	12.5	K41450222__M0J143
3300	76x105	0.12	35	30	11.2	K41450332__M0J105
3300	76x143	0.12	35	30	12.9	K41450332__M0J143
4700	76x143	0.15	32	30	15.0	K41450472__M0J143
5600	76x143	0.15	26	25	19.0	K41450562__M0J143
6800	76x214	0.15	23	22	19.0	K41450682__M0J214
8200	76x214	0.15	22	20	19.0	K41450822__M0J214
10000	76x143	0.20	22	20	19.0	K41450103__M0J143
10000	76x214	0.20	20	19	23.1	K41450103__M0J214
12000	76x214	0.20	15	12	29.8	K41450123__M0J214
15000	90x220	0.20	14	12	32.6	K41450153__M0L220

**RATED  
VOLTAGE  
VDC**

**450V**

Cap $\mu\text{F}$	$\varnothing \times L$ mm	Tan $\delta$ MAX 100 Hz 20°C	ESR TYP m $\Omega$ 100 Hz 20°C	Z TYP m $\Omega$ 10 kHz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded
1000	51x105	0.15	125	114	4.0	K41500102__M0G105
1500	63x105	0.15	100	91	5.2	K41500152__M0H105
2200	76x105	0.15	70	66	7.4	K41500222__M0J105
2200	76x143	0.15	70	66	8.2	K41500222__M0J143
3300	76x143	0.15	55	53	10.3	K41500332__M0J143
4700	76x214	0.20	40	37	18.5	K41500472__M0J214
5600	76x214	0.15	26	22	19.8	K41500562__M0J214
6800	76x214	0.15	24	22	20.2	K41500682__M0J214

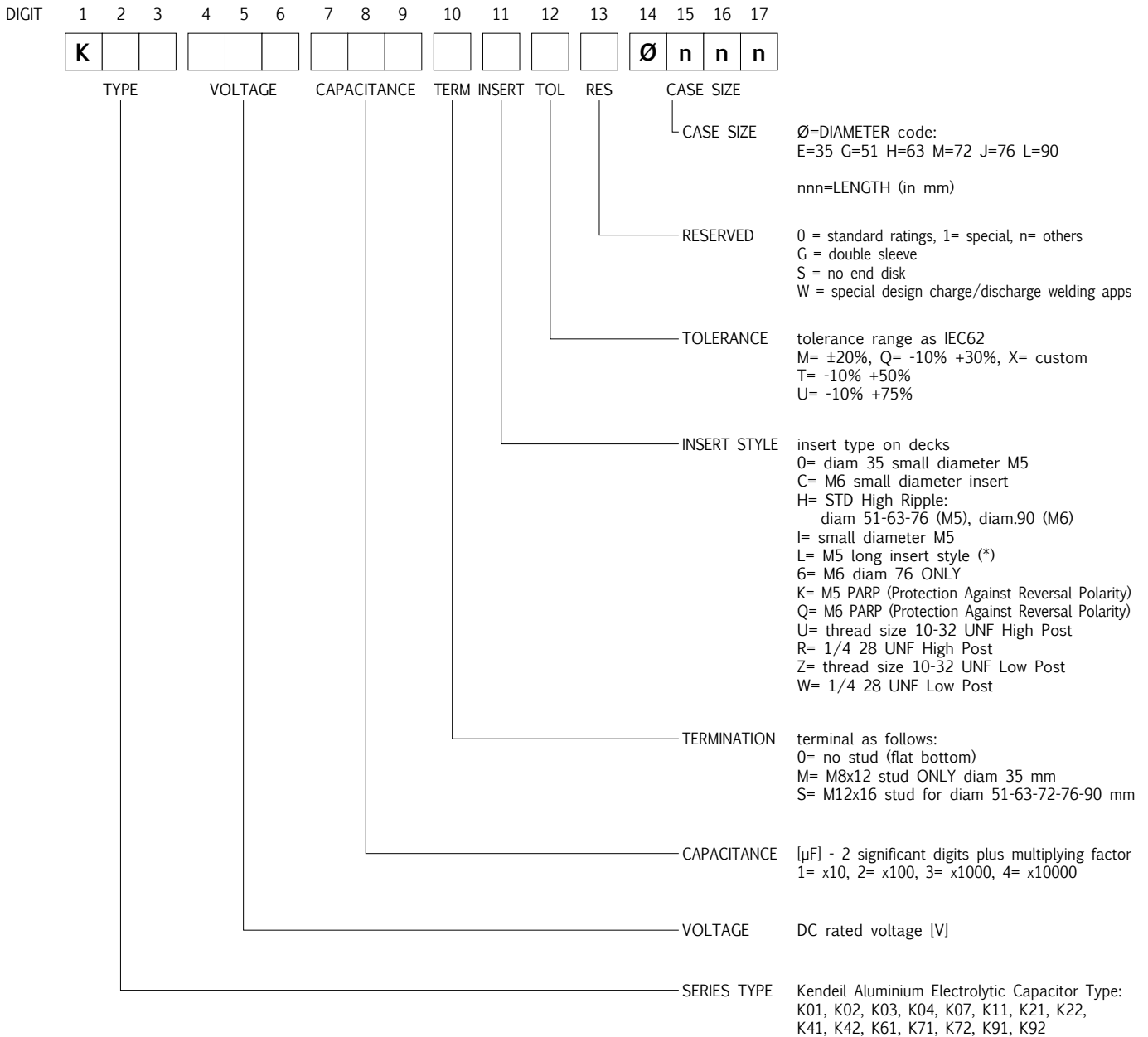
**RATED  
VOLTAGE  
VDC**

**500V**

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)