

# K75 TYPE -40°C +105°C 5000H

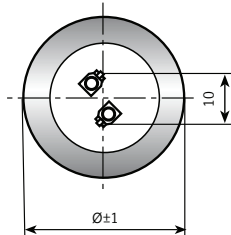
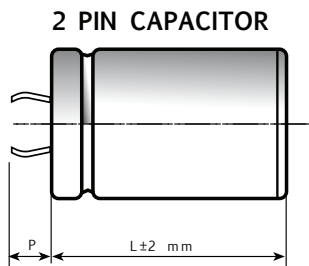
RoHS Compliant

- Design optimized for extremely high miniaturization.
- Surge-proof capacitor in aluminium can with insulation sleeve.
- Snap in terminals for PCB mounting.

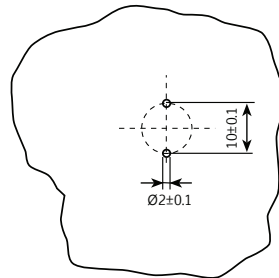
## APPLICATIONS

Designed for professional application.  
Ultra compact UPS, Solar inverters, High ripple current converters, Motor drives.

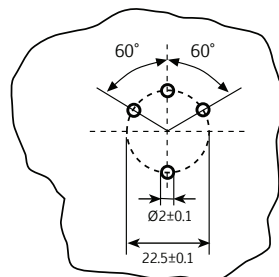
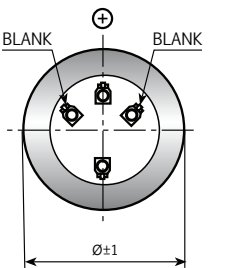
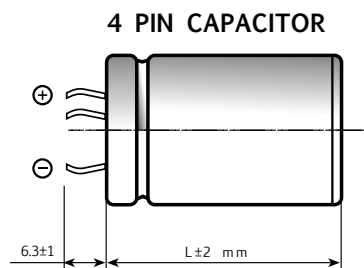
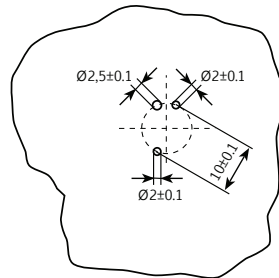
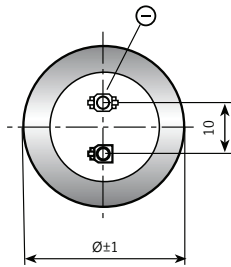
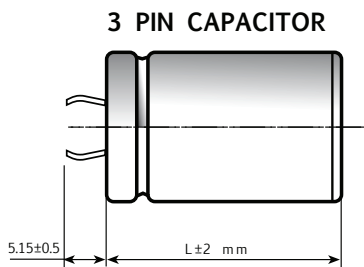
Dimensions in mm.



Circuit board hole dimensions



PIN LENGTH  
P 4.5 short pin  
P 6.3 long pin (standard)



Ø	22	25	30	35	40	45	50
2 PINS	●	●	●	●	●		
3 PINS		●	●	●			
4 PINS				●	●	●	●

On demand, only for capacitors with diam ≥ 35mm: octagonal can shape for long stress vibration applications.

## SPECIFICATIONS

<b>Temperature Range</b>	Operating : -40°C +105°C Storage : Preferably below +25°C, not exceeding +40°C	
<b>Rated Voltage Range (V<sub>r</sub>)</b>	from 200V to 450V DC	
<b>Surge Voltage (V<sub>p</sub>)</b>	V <sub>p</sub> = 1.10 V <sub>r</sub>	
<b>Rated Capacitance Range</b>	from 200 µF to 5600 µF	
<b>Capacitance Tolerance</b>	±20% at 100 Hz, 20°C [M class IEC-62]	
<b>Leakage Current (I<sub>L</sub>) (mA, 5 min, 20°C)</b>	max I <sub>L</sub> = 0.003 C <sub>r</sub> V <sub>r</sub> + 4 µA	
<b>Ripple current (I<sub>r</sub>)</b>	Refer to table at 105°C and 100Hz :	
	FREQUENCY	50Hz    100Hz    500Hz    1000Hz    >10kHz
	MULTIPLIER	0.88    1.0    1.45    1.5    1.55
	AMBIENT TEMP	35°C    45°C    55°C    65°C    75°C    85°C    95°C    105°C
	MULTIPLIER	3.0    2.8    2.6    2.4    2.2    1.8    1.5    1
<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 max acceleration 10g for 3x2 h	
<b>Life test (105°C, V<sub>n</sub>, I<sub>r</sub> applied)</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 (105°C, V<sub>n</sub>, I<sub>r</sub> applied)</b>	≥ 5.000 h at 105°C	Cap change ≤ 20% tan δ ≤ 200% Leakage current (I <sub>L</sub> ) < initial limit Impedance (Z) ≤ 200%
<b>Failure percentage Failure rate</b>	≤ 1% (during useful life) ≤ 40 fit (40 10 <sup>-9</sup> /h)	
<b>Self inductance</b>	Approx. 15 nH	
<b>Reference standards</b>	CECC 30.300 IEC 60384-4 LONG LIFE GRADE	

## K75 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 $m\Omega$ 10kHz 20°C	I <sub>r</sub> a.c. A max 100 Hz 105°C	PART NUMBER termination digit excluded
560	25x30	0.09	106	39	1.90	K75200561_PM0C030
680	25x35	0.09	85	32	2.25	K75200681_PM0C035
820	25x40	0.09	67	25	2.52	K75200821_PM0C040
820	30x30	0.09	84	34	2.40	K75200821_PM0D030
1000	25x45	0.10	61	23	2.93	K75200102_PM0C045
1000	30x35	0.10	68	30	2.83	K75200102_PM0D035
1000	35x30	0.10	75	37	2.75	K75200102_PM0E030
1200	25x50	0.10	53	22	3.27	K75200122_PM0C050
1200	30x40	0.10	58	25	3.19	K75200122_PM0D040
1200	35x30	0.10	69	33	2.86	K75200122_PM0E030
1500	30x45	0.10	50	22	3.64	K75200152_PM0D045
1500	35x35	0.10	58	26	3.24	K75200152_PM0E035
1800	35x40	0.10	53	27	3.70	K75200182_PM0E040
2200	35x45	0.10	46	24	4.17	K75200222_PM0E045
2200	35x50	0.10	46	24	4.61	K75200222_PM0E050
2700	35x60	0.10	33	17	5.51	K75200272_PM0E060
3300	40x60	0.10	32	18	6.00	K75200332_PM0F060

**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 $m\Omega$ 10kHz 20°C	I <sub>r</sub> a.c. A max 100 Hz 105°C	PART NUMBER termination digit excluded
390	25x30	0.09	141	52	1.65	K75250391_PM0C030
470	25x35	0.09	111	42	1.96	K75250471_PM0C035
560	30x30	0.09	106	44	2.14	K75250561_PM0D030
680	25x45	0.09	80	33	2.54	K75250681_PM0C045
760	30x35	0.09	82	35	2.51	K75250761_PM0D035
820	30x40	0.09	75	30	2.84	K75250821_PM0D040
820	35x30	0.09	84	36	2.53	K75250821_PM0E030
1000	30x45	0.10	60	26	3.30	K75250102_PM0D045
1000	35x35	0.10	66	32	3.04	K75250102_PM0E035
1200	30x50	0.10	55	22	3.60	K75250122_PM0D050
1200	35x40	0.10	55	22	3.50	K75250122_PM0E040
1500	35x50	0.10	48	22	4.22	K75250152_PM0E050
2200	35x60	0.10	39	18	5.03	K75250222_PM0E060
2500	40x60	0.10	31	18	5.98	K75250252_PM0F060

**RATED  
VOLTAGE  
VDC**

**250V**

## K75 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 10kHz 20°C	Ir a.c. A max 100 Hz 105°C	PART NUMBER termination digit excluded
330	25x35	0.09	238	117	1.34	K75350331_PM0C035
370	25x35	0.09	238	115	1.34	K75350371_PM0C035
390	30x30	0.09	225	114	1.47	K75350391_PM0D030
470	30x30	0.09	208	107	1.53	K75350471_PM0D030
560	30x35	0.09	169	87	1.79	K75350561_PM0D035
620	30x40	0.09	149	76	2.00	K75350621_PM0D040
620	35x30	0.09	161	86	2.00	K75350621_PM0E030
680	30x45	0.09	127	66	2.26	K75350681_PM0D045
680	35x35	0.09	142	79	2.16	K75350681_PM0E035
780	30x45	0.09	123	63	2.30	K75350781_PM0D045
780	35x35	0.09	139	77	2.19	K75350781_PM0E035
820	30x50	0.09	111	57	2.51	K75350821_PM0D050
900	35x40	0.09	118	65	2.48	K75350901_PM0E040
1000	35x45	0.10	102	56	2.78	K75350102_PM0E045
1200	35x50	0.10	88	49	3.12	K75350122_PM0E050
1500	35x60	0.10	72	40	3.71	K75350152_PM0E060
2000	40x60	0.10	68	38	4.29	K75350202_PM0F060
2200	45x60	0.10	48	26	5.30	K75350222_PM0N060
2700	45x77	0.10	39	22	6.38	K75350272_PM0N077
2700	50x60	0.10	43	26	5.95	K75350272_PM0V060
2900	40x97	0.10	42	25	6.38	K75350292_PM0F097
3300	50x77	0.10	36	22	7.14	K75350332_PM0V077
3700	45x105	0.10	27	15	8.73	K75350372_PM0N105
4700	50x105	0.10	25	15	9.75	K75350472_PM0V105

**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 10kHz 20°C	Ir a.c. A max 100 Hz 105°C	PART NUMBER termination digit excluded
220	25x35	0.09	328	148	1.15	K75400221_PM0C035
270	25x35	0.09	270	125	1.26	K75400271_PM0C035
330	25x40	0.09	240	110	1.39	K75400331_PM0C040
330	30x30	0.09	240	110	1.43	K75400331_PM0D030
370	30x30	0.09	238	108	1.44	K75400371_PM0D030
470	30x35	0.09	190	91	1.69	K75400471_PM0D035
470	30x40	0.09	168	81	1.88	K75400471_PM0D040
510	30x40	0.09	166	80	1.89	K75400511_PM0D040
510	35x30	0.09	189	89	1.78	K75400511_PM0E030
560	30x45	0.09	140	68	2.15	K75400561_PM0D045
560	35x35	0.09	156	81	2.06	K75400561_PM0E035
630	30x45	0.09	139	66	2.17	K75400631_PM0D045
630	35x35	0.09	154	80	2.07	K75400631_PM0E035
680	30x50	0.09	126	60	2.37	K75400681_PM0D050
680	35x40	0.09	132	68	2.35	K75400681_PM0E040
820	30x60	0.09	102	49	2.82	K75400821_PM0D060
820	35x45	0.09	114	59	2.64	K75400821_PM0E045
1000	35x50	0.10	97	51	2.96	K75400102_PM0E050
1200	35x60	0.10	79	41	3.54	K75400122_PM0E060
1500	40x60	0.10	68	39	4.10	K75400152_PM0F060
1800	45x60	0.10	53	27	5.03	K75400182_PM0N060
2000	45x77	0.10	44	23	6.05	K75400202_PM0N077
2200	40x97	0.10	46	26	6.08	K75400222_PM0F097
2200	50x60	0.10	48	27	5.68	K75400222_PM0V060
2700	50x77	0.10	39	22	6.82	K75400272_PM0V077
2900	45x105	0.10	31	16	8.28	K75400292_PM0N105
3900	50x105	0.10	27	16	9.31	K75400392_PM0V105

**RATED  
VOLTAGE  
VDC**

**400V**

## K75 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 10kHz 20°C	I <sub>r</sub> a.c. A max 100 Hz 105°C	PART NUMBER termination digit excluded
220	25x35	0.09	329	144	1.14	K75420221_PM0C035
250	25x35	0.09	292	129	1.21	K75420251_PM0C035
330	30x30	0.09	256	118	1.38	K75420331_PM0D030
390	30x35	0.09	206	96	1.62	K75420391_PM0D035
470	30x40	0.09	178	81	1.83	K75420471_PM0D040
470	35x30	0.09	198	98	1.73	K75420471_PM0E030
560	30x45	0.09	149	69	2.09	K75420561_PM0D045
560	35x35	0.09	165	82	2.01	K75420561_PM0E035
620	30x50	0.09	135	62	2.28	K75420621_PM0D060
650	35x40	0.09	140	66	2.28	K75420651_PM0E040
680	35x45	0.09	121	60	2.55	K75420681_PM0E045
820	35x50	0.09	105	53	2.85	K75420821_PM0E050
1000	35x60	0.10	84	44	3.41	K75420102_PM0E060
1300	40x60	0.10	73	40	4.00	K75420132_PM0F060
1500	45x60	0.10	56	28	4.89	K75420152_PM0N060
1800	45x77	0.10	47	24	5.88	K75420182_PM0N077
2000	40x97	0.10	48	26	5.93	K75420202_PM0F097
2000	50x60	0.10	50	27	5.53	K75420202_PM0V060
2400	50x77	0.10	42	23	6.67	K75420242_PM0V077
2700	45x105	0.10	32	16	8.05	K75420272_PM0N105
3500	50x105	0.10	28	16	9.08	K75420352_PM0V105

**RATED  
VOLTAGE  
VDC**

**420V**

Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP mΩ 100 Hz 20°C	Z TYP mΩ 10kHz 20°C	I <sub>r</sub> a.c. A max 100 Hz 105°C	PART NUMBER termination digit excluded
220	25x35	0.09	325	145	1.10	K75450221_PM0C035
270	30x30	0.09	283	132	1.28	K75450271_PM0D030
330	30x35	0.09	228	107	1.50	K75450331_PM0D035
390	30x40	0.09	200	92	1.70	K75450391_PM0D040
470	30x45	0.09	165	80	1.94	K75450471_PM0D045
470	35x35	0.09	180	90	1.88	K75450471_PM0E035
560	30x50	0.09	150	70	2.12	K75450561_PM0D050
560	35x40	0.09	154	76	2.12	K75450561_PM0E040
680	35x45	0.09	133	65	2.38	K75450681_PM0E045
820	35x50	0.09	115	57	2.66	K75450821_PM0E050
1000	35x60	0.10	91	45	3.31	K75450102_PM0E060
1200	40x60	0.10	79	43	3.74	K75450122_PM0F060
1500	45x60	0.10	59	32	4.61	K75450152_PM0N060
1800	40x97	0.10	52	30	5.61	K75450182_PM0F097
1800	45x77	0.10	50	25	5.55	K75450182_PM0N077
1800	50x60	0.10	53	29	5.24	K75450182_PM0V060
2200	50x77	0.10	44	24	6.31	K75450222_PM0V077
2700	45x105	0.10	34	17	7.60	K75450272_PM0N105
3300	50x105	0.10	30	17	8.60	K75450332_PM0V105

**RATED  
VOLTAGE  
VDC**

**450V**

PLEASE TO CONTACT OUR TECHNICAL SERVICE FOR MORE INFORMATION.