K85 TYPE -40˚C +105˚C 8000H

RoHS Compliant

- **Design optimized for high ripple current and very long life application.**
- **Surge-proof capacitor in aluminium can with insulation sleeve.**
- **Snap in terminals for PCB mounting.**

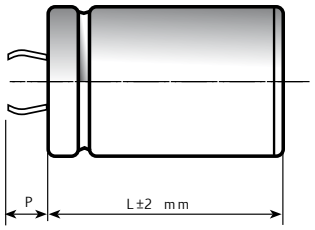
APPLICATIONS

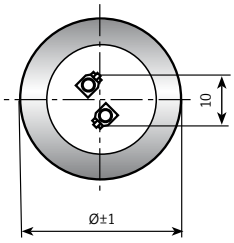
Designed for professional application.
Ultra compact UPS, Solar inverters, High ripple current converters, Motor drives.

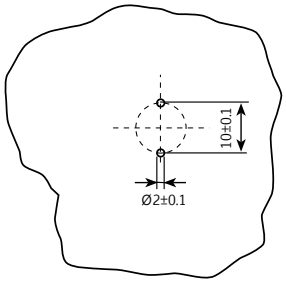
Dimensions in mm.

Circuit board hole dimensions

2 PIN CAPACITOR

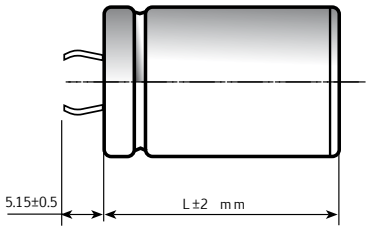


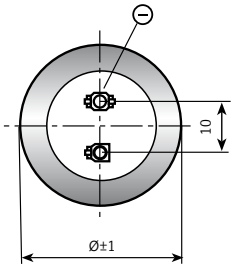


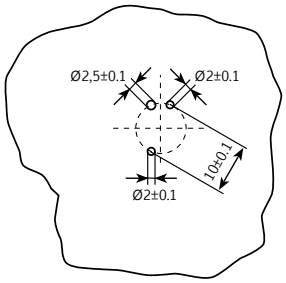


PIN LENGTH
P 4.5 short pin - P 6.3 long pin (standard)

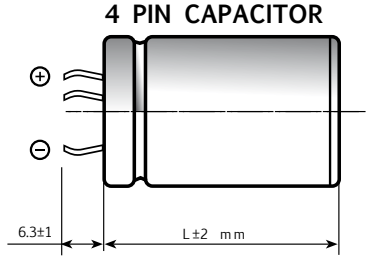
3 PIN CAPACITOR

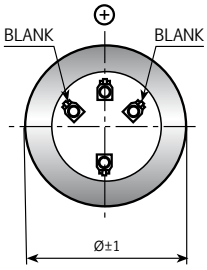


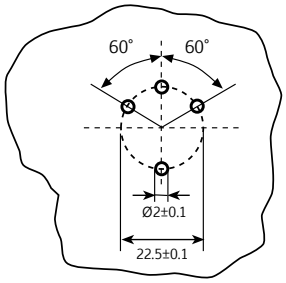




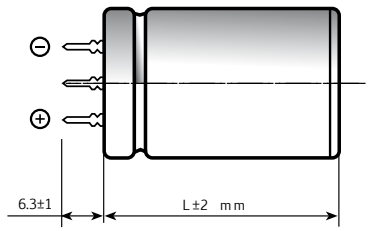
4 PIN CAPACITOR

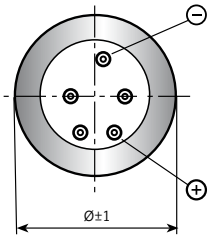


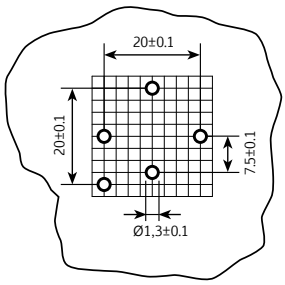




5 PIN CAPACITOR







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

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

Temperature Range	Operating : -40°C +105°C 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 100 µF to 1000 µF	
Capacitance Tolerance	±20% at 100 Hz, 20°C [M 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 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	
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 max acceleration 10g for 3x2 h	
Withstand voltage **(between terminals bundled and plate)**	2500 VAC for 1 min	
Life test **(105°C, Vn, Ir applied)**	After 3,000 hours application of rated voltage at 105°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 500 hours at 105°C, when restored at 20°C meet specifications aside	Cap change ≤ ±15% tan δ ≤ 150% Leakage current (I_L) < initial limit
Useful life **(105°C, Vn, Ir applied)**	≥ 8.000 h at 105°C	Cap change ≤ 20% tan δ ≤ 200% Leakage current (I_L) < initial limit Impedance (Z) ≤ 200%
Failure percentage **Failure rate**	≤ 1% (during useful life) ≤ 40 fit (40 10^{-9}/h)	
Self inductance	Approx. 15 nH	
Damp heat test **(Vn 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	
Marking information	minus pole band aside within an angle of 41° ± 25°	
Reference standards	CECC 30.300 IEC 60384-4 LONG LIFE GRADE	

K85 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 105°C	PART NUMBER termination digit excluded	RATED VOLTAGE VDC
180	25x30	0.06	240	136	1.35	K85350181_PM0C030	350V
220	25x35	0.06	199	121	1.57	K85350221_PM0C035	
220	30x30	0.06	209	128	1.64	K85350221_PM0D030	
330	25x45	0.06	136	83	2.10	K85350331_PM0C045	
330	30x35	0.06	144	86	2.07	K85350331_PM0D035	
390	25x50	0.06	134	83	2.29	K85350391_PM0C050	
390	30x35	0.06	140	86	2.11	K85350391_PM0D035	
390	30x40	0.06	140	86	2.46	K85350391_PM0D040	
390	35x30	0.06	138	85	2.33	K85350391_PM0E030	
470	25x55	0.07	96	77	2.59	K85350471_PM0C055	
470	35x35	0.07	96	78	2.51	K85350471_PM0E035	
560	30x55	0.07	78	48	3.10	K85350561_PM0D055	
560	35x40	0.07	88	54	2.98	K85350561_PM0E040	
680	35x45	0.07	75	45	3.20	K85350681_PM0E045	
680	35x50	0.07	74	44	3.32	K85350681_PM0E050	
720	35x50	0.07	67	42	3.45	K85350721_PM0E050	
820	35x55	0.07	63	39	3.78	K85350821_PM0E055	
1000	35x60	0.08	60	39	4.00	K85350102_PM0E060	

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 termination digit excluded	RATED VOLTAGE VDC
150	25x30	0.06	291	160	1.23	K85400151_PM0C030	400V
180	25x35	0.06	240	136	1.44	K85400181_PM0C035	
180	30x30	0.06	240	136	1.53	K85400181_PM0D030	
220	25x45	0.06	184	102	1.81	K85400221_PM0C045	
220	30x35	0.06	196	110	1.79	K85400221_PM0D035	
270	25x50	0.06	185	95	1.88	K85400271_PM0C050	
270	30x35	0.06	170	98	1.91	K85400271_PM0D035	
270	35x30	0.06	162	92	2.07	K85400271_PM0E030	
330	25x55	0.06	121	67	2.41	K85400331_PM0C055	
330	30x40	0.06	152	84	2.12	K85400331_PM0D040	
330	35x35	0.06	153	89	2.24	K85400331_PM0E035	
390	30x50	0.06	103	55	2.71	K85400391_PM0D050	
390	35x40	0.06	114	63	2.73	K85400391_PM0E040	
470	30x55	0.07	97	52	3.01	K85400471_PM0D055	
470	35x45	0.07	95	52	3.07	K85400471_PM0E045	
560	35x50	0.07	85	45	3.20	K85400561_PM0E050	
680	35x55	0.07	75	45	3.51	K85400681_PM0E055	

K85 TYPE STANDARD RATINGS

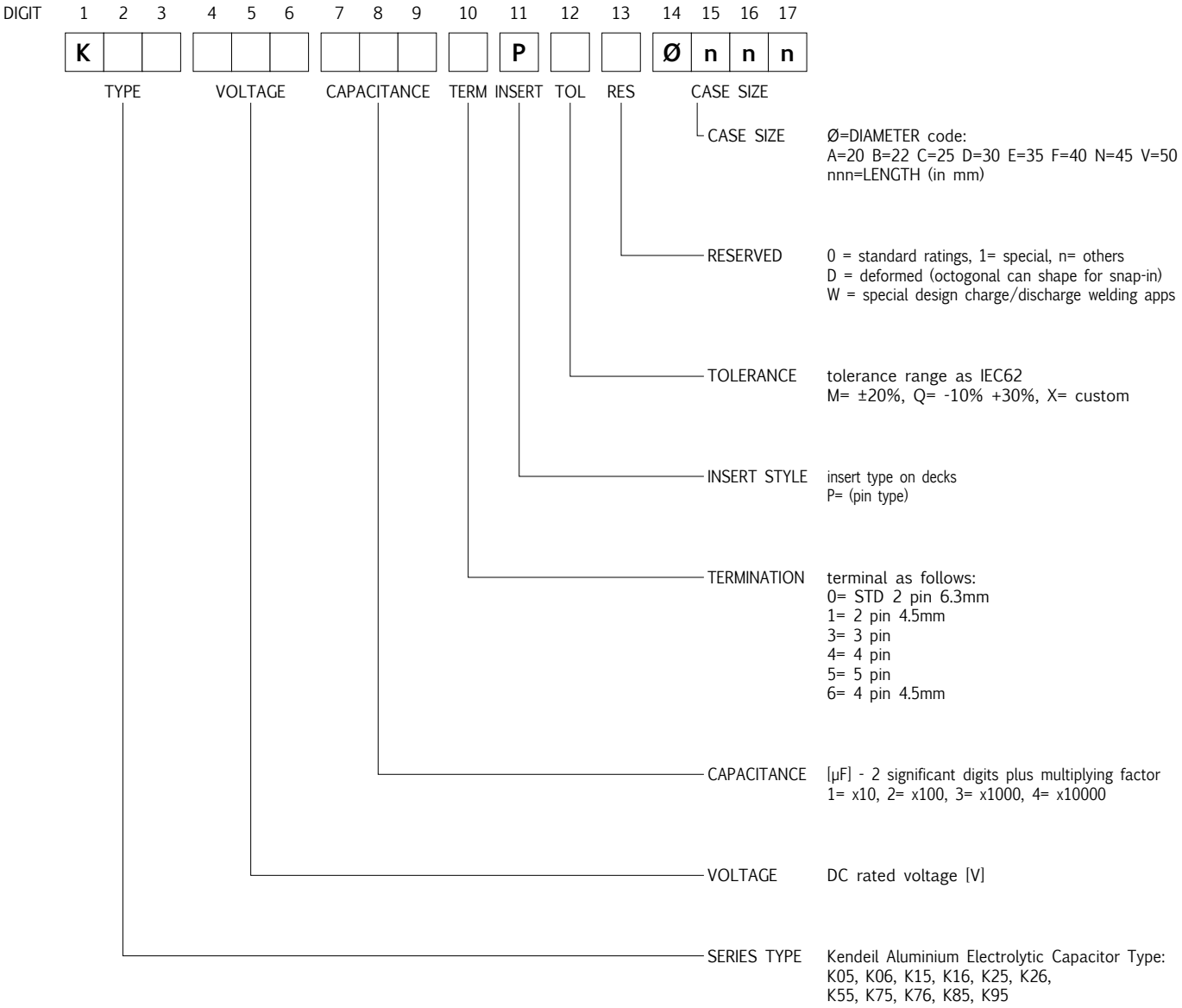
Cap µF	Ø x L mm	Tan δ MAX 100 Hz 20°C	ESR TYP mΩ 100 Hz 20°C	Z TYP mΩ 10 kHz 20°C	Ir a.c. A max 100 Hz 105°C	PART NUMBER termination digit excluded	RATED VOLTAGE VDC
120	25x30	0.06	312	181	1.19	K85420121_PM0C030	420V
150	25x35	0.06	253	146	1.40	K85420151_PM0C035	
180	30x30	0.06	240	136	1.53	K85420181_PM0D030	
220	25x45	0.06	184	102	1.81	K85420221_PM0C045	
220	30x35	0.06	196	110	1.79	K85420221_PM0D035	
250	25x50	0.06	170	92	1.96	K85420251_PM0C050	
250	30x35	0.06	185	103	1.83	K85420251_PM0D035	
250	35x30	0.06	172	96	2.00	K85420251_PM0E030	
270	30x40	0.06	152	84	2.12	K85420271_PM0D040	
330	25x55	0.06	121	67	2.41	K85420331_PM0C055	
330	35x35	0.06	153	89	2.24	K85420331_PM0E035	
390	30x55	0.06	103	55	2.91	K85420391_PM0D055	
390	35x40	0.06	114	63	2.71	K85420391_PM0E040	
470	35x50	0.07	97	45	3.15	K85420471_PM0E050	
560	35x55	0.07	85	45	3.30	K85420561_PM0E055	
680	35x60	0.07	75	45	3.54	K85420681_PM0E060	

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 termination digit excluded	RATED VOLTAGE VDC
100	25x30	0.06	388	214	1.07	K85450101_PM0C030	450V
120	25x35	0.06	324	178	1.24	K85450121_PM0C035	
150	25x40	0.06	250	142	1.48	K85450151_PM0C040	
150	30x30	0.06	260	144	1.45	K85450151_PM0D030	
150	30x40	0.06	250	142	1.66	K85450151_PM0D040	
180	25x45	0.06	212	119	1.68	K85450181_PM0C045	
180	30x35	0.06	223	126	1.67	K85450181_PM0D035	
220	25x50	0.06	183	101	1.89	K85450221_PM0C050	
220	30x40	0.06	197	110	1.97	K85450221_PM0D040	
220	35x30	0.06	185	104	1.92	K85450221_PM0E030	
270	30x45	0.06	159	86	2.21	K85450271_PM0D045	
270	35x35	0.06	166	95	2.12	K85450271_PM0E035	
330	30x50	0.06	127	68	2.53	K85450331_PM0D050	
330	35x40	0.06	127	68	2.57	K85450331_PM0E040	
390	30x55	0.06	110	59	2.82	K85450391_PM0D055	
390	35x45	0.06	119	63	2.77	K85450391_PM0E045	
470	35x50	0.06	106	58	3.06	K85450471_PM0E050	
560	35x55	0.07	91	54	3.30	K85450561_PM0E055	
560	35x60	0.07	91	54	3.42	K85450561_PM0E060	
680	35x77	0.07	81	41	4.07	K85450681_PM0E077	

PLEASE TO CONTACT OUR TECHNICAL SERVICE FOR MORE INFORMATION.

PART NUMBER SYSTEM
FOR SNAP-IN 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	5	4	5	0	4	7	1	0	P	M	0	E	0	5	0

K05 450V 470µF, standard pin, ±20%, 35x50

Specifications subject to change without notice

Kendeil™