

K15 TYPE -40°C +105°C 5000H

RoHS Compliant

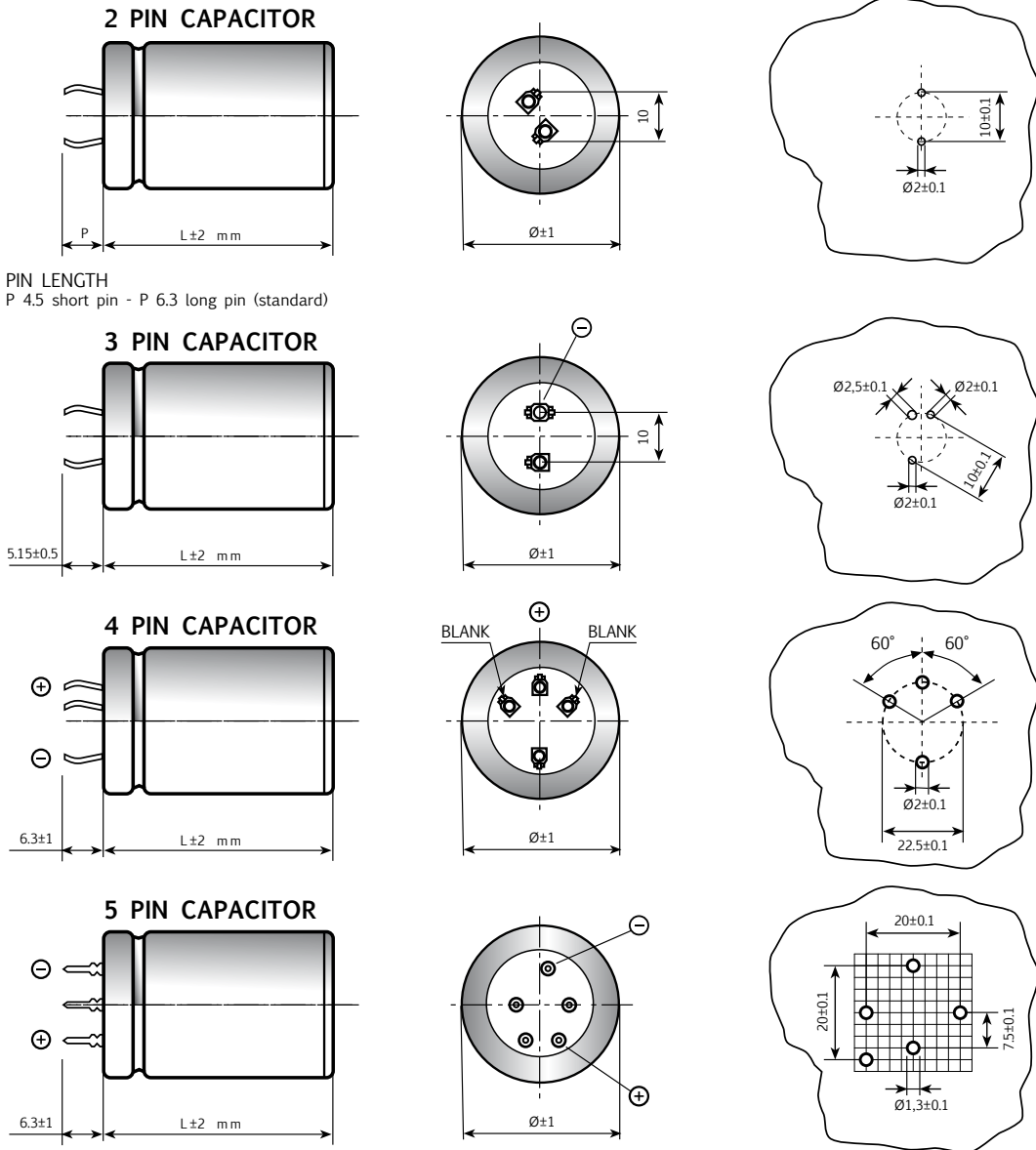
- High temperature 105°C.
- Surge-proof capacitor in aluminium can with insulation sleeve.
- Safety vent at bottom case or aside case.
- Snap in terminals for PCB mounting.
- 2-4 pins available (d=45mm: 4 pins only).
- Large size snap in.

APPLICATIONS

Professional switch mode power supplies. Professional power electronics.

Dimensions in mm.

Circuit board hole dimensions



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

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

SPECIFICATIONS

Temperature Range	Operating: -40°C +105°C Storage : Preferably below +25°C, not exceeding +40°C								
Rated Voltage Range (V_r)	from 400V to 450V DC								
Surge Voltage (V_p)	V _p = 1.10 V _r								
Rated Capacitance Range	from 820 µF to 2200 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 = 0.003 C _r V _r + 4 µA								
Ripple current (I_r)	Refer to table at 105°C and 100Hz :								
	FREQUENCY	50Hz	100Hz	500 Hz	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	1.0
	Maximum internal temperature	110°C							
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 10 G for 3x2 h								
Withstand voltage (between terminals bundled and plate)	2500 VAC for 1 min								
Life test	After 2,000 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 (V _n , Temp rated I ripple applied)	> 250,000 h at 40°C > 15,000 h at 85°C > 5,000 h at 105°C								
Failure percentage Failure rate	≤ 1% (during useful life) ≤ 40 fit (40 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								
Marking information	minus pole band aside within an angle of 41° ± 25°								
Reference standards	CECC 30.301 - IEC 60384-4 LONG LIFE GRADE								

K15 TYPE STANDARD RATINGS

Cap μF	$\varnothing \times L$ 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 105°C	PART NUMBER termination digit excluded
1200	40x77	0.10	89	80	3.58	K15400122_PM0F077
1200	45x60	0.10	89	80	3.40	K15400122_PM0N060
1500	40x97	0.10	80	71	4.76	K15400152_PM0F097
1500	45x77	0.10	85	76	4.70	K15400152_PM0N077
1500	50x60	0.10	85	76	4.2	K15400152_PM0V060
1800	45x97	0.10	69	60	5.55	K15400182_PM0N097
1800	50x77	0.10	69	60	4.9	K15400182_PM0V077
2200	45x105	0.10	59	49	6.00	K15400222_PM0N105
2700	50x105	0.10	45	35	6.2	K15400272_PM0V105

**RATED
VOLTAGE
VDC**

400V

Cap μF	$\varnothing \times L$ 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 105°C	PART NUMBER termination digit excluded
820	35x77	0.15	215	195	3.00	K15420821_PM0E077
1000	40x60	0.15	195	165	3.60	K15420102_PM0F060
1200	40x77	0.15	183	142	3.70	K15420122_PM0F077
1200	45x60	0.15	180	140	3.60	K15420122_PM0N060
1500	40x97	0.15	140	110	4.60	K15420152_PM0F097
1500	45x77	0.15	150	120	4.43	K15420152_PM0N077
1500	50x60	0.10	140	110	4.1	K15420152_PM0V060
1800	45x97	0.15	118	98	5.55	K15420182_PM0N097
1800	50x77	0.10	118	98	4.5	K15420182_PM0V077
2200	45x105	0.15	112	94	6.03	K15420222_PM0N105
2700	50x105	0.10	101	89	6.2	K15420272_PM0V105

**RATED
VOLTAGE
VDC**

420V

Cap μF	$\varnothing \times L$ 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 105°C	PART NUMBER termination digit excluded
820	40x60	0.15	216	195	3.25	K15450821_PM0F060
1000	40x77	0.15	195	165	3.76	K15450102_PM0F077
1000	45x60	0.15	195	165	3.56	K15450102_PM0N060
1200	40x97	0.15	180	140	4.54	K15450122_PM0F097
1200	45x77	0.15	184	145	4.24	K15450122_PM0N077
1200	50x60	0.10	180	145	4.0	K15450122_PM0V060
1500	45x97	0.15	140	110	5.06	K15450152_PM0N097
1500	50x77	0.10	140	110	4.9	K15450152_PM0V077
1800	45x105	0.15	126	106	5.10	K15450182_PM0N105
2200	50x105	0.10	114	95	5.9	K15450222_PM0V105

**RATED
VOLTAGE
VDC**

450V

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

