

# K16 TYPE -40°C +85°C 5000H

RoHS Compliant  
Directive 2002/95/EC

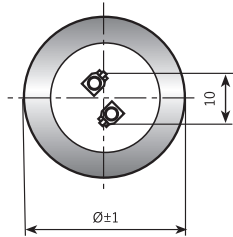
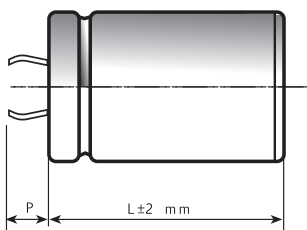
- Surge-proof capacitor in aluminium can with insulation sleeve
- Safety vent at bottom case or aside case.
- Snap in terminals for PCB mounting.
- 2-4 pins available (d=45mm: 4 pins only)
- Large size snap in

## APPLICATIONS

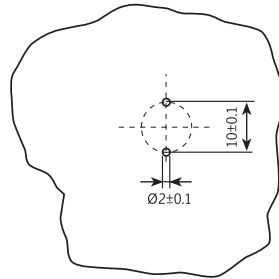
Professional switch mode power supplies. Professional power electronics.

Dimensions in mm.

### 2 PIN CAPACITOR

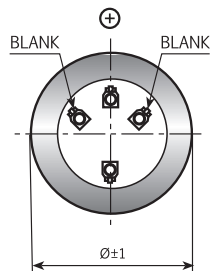
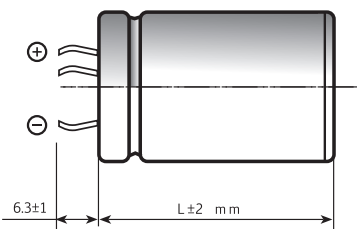


Circuit board  
hole dimensions

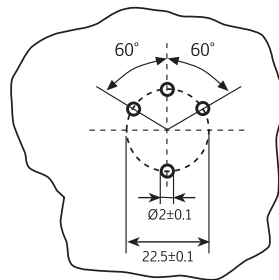


PIN LENGTH  
P 4.5 short pin  
P 6.3 long pin (standard)

### 4 PIN CAPACITOR



Circuit board  
hole dimensions



## SPECIFICATIONS

<b>Temperature Range</b>	Operating: -40°C +85°C Storage : Preferably below +25°C, not exceeding +40°C						
<b>Rated Voltage Range (V<sub>r</sub>)</b>	from 400V 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 820 µF to 2700 µF						
<b>Capacitance Tolerance</b>	±20% at 100 Hz, 20°C [M class IEC-62]						
<b>Leakage Current (I<sub>L</sub>)</b> (mA, 5 min, 20°C)	max I <sub>L</sub> = 0.006 C <sub>r</sub> V <sub>r</sub> + 4 µA						
<b>Ripple current (I<sub>r</sub>)</b>	Refer to table at 85°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
	MULTIPLIER	2.2	2.1	1.8	1.6	1.4	1.0 0.5
	Maximum internal temperature	98°C					
<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 10 G for 3x2 h						
<b>Life test</b>	After 2,000 hours application of rated voltage at 85°C capacitors meet characteristics aside	Cap change	≤ 20%				
		tan δ	≤ 200%				
		Leakage current (I <sub>L</sub> )	< initial limit				
		Impedance (Z)	≤ 200%				
<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</b>	> 5,000 h at 85°C						
<b>Failure percentage</b>	≤ 1% (during useful life)						
<b>Failure rate</b>	≤ 70 fit (70 10 <sup>-9</sup> /h)						
<b>Self inductance</b>	Approx. 20 nH						
<b>Reference standards</b>	CECC 30.301 - IEC 60384-4 LONG LIFE GRADE						

## K16 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 termination digit excluded
1000	35x77	0.10	90	80	4.50	K16400102_PM0E077
1200	40x60	0.10	89	79	4.50	K16400122_PM0F060
1500	40x77	0.10	75	64	5.80	K16400152_PM0F077
1500	45x60	0.10	80	70	4.90	K16400152_PM0N060
1800	40x97	0.10	60	50	6.60	K16400182_PM0F097
1800	45x77	0.10	70	60	6.00	K16400202_PM0N077
2000	40x105	0.10	45	35	7.60	K16400202_PM0F105
2200	45x97	0.10	55	45	7.30	K16400222_PM0N097
2700	45x105	0.10	39	27	9.00	K16400272_PM0N105

**RATED  
VOLTAGE  
VDC**

**400V**

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 termination digit excluded
820	35x77	0.15	220	200	3.65	K16420821_PM0E077
1000	40x60	0.15	200	170	4.90	K16420102_PM0F060
1200	40x77	0.15	190	150	4.90	K16420122_PM0F077
1200	45x60	0.15	180	140	4.90	K16420122_PM0N060
1500	40x97	0.15	140	110	5.56	K16420152_PM0F097
1500	45x77	0.15	150	120	5.36	K16420152_PM0N077
1800	40x105	0.15	120	100	6.40	K16420182_PM0F105
2200	45x97	0.15	112	102	6.70	K16420222_PM0N097

**RATED  
VOLTAGE  
VDC**

**420V**

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 termination digit excluded
820	35x77	0.15	215	195	3.65	K16450821_PM0E077
1000	40x60	0.15	195	165	4.90	K16450102_PM0F060
1200	40x77	0.15	183	142	4.90	K16450122_PM0F077
1200	45x60	0.15	180	140	4.90	K16450122_PM0N060
1500	40x97	0.15	140	110	5.56	K16450152_PM0F097
1500	45x77	0.15	150	120	5.36	K16450152_PM0N077
1800	45x97	0.15	128	110	6.50	K16450182_PM0N097
2200	45x105	0.15	112	102	6.80	K16450222_PM0N105

**RATED  
VOLTAGE  
VDC**

**450V**