

K11 TYPE -40°C +85°C 12000H

RoHS Compliant
Directive 2002/95/EC

- Surge-proof capacitor in aluminium can with insulation sleeve.
- To be mounted with ring clips or with threaded stud
- Design optimized for parallel connection and high density of energy

APPLICATIONS

Energy Storage, Bulk.

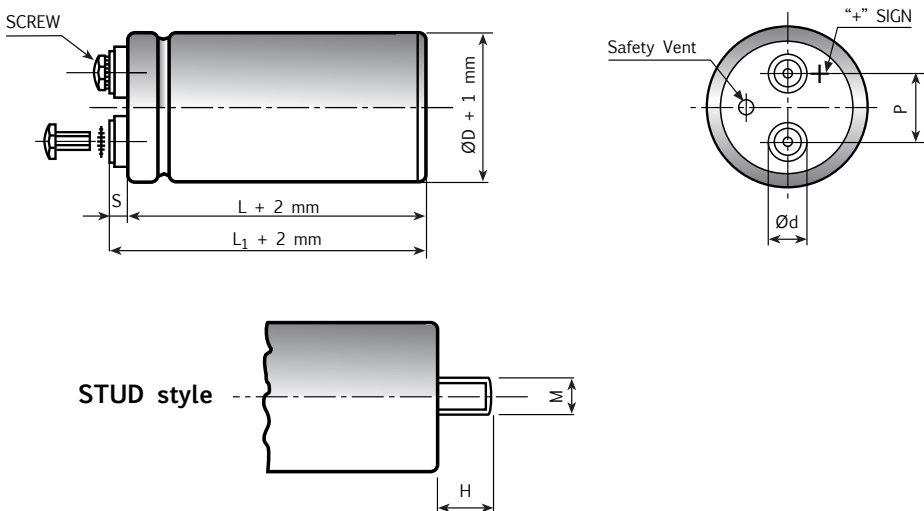


Diagram of dimensions (unit=mm)

ØD	d	P	M	H	SCREW
35	11	12.7	M 8	12	5MA x 9,5
51	18.5	22.7	M 12	16	5MA x 9,5
63	18.5	28.6	M 12	16	5MA x 9,5
76	18.5	31.8	M 12	16	5MA x 9,5
76	18.5	31.8	M 12	16	6MA x 10
90	18.5	31.8	M 12	16	6MA x 10
L1	L ₁ = L + 2.5 mm L ₁ toll. - 0+3 mm			L ₁ = L + 4.5 mm L ₁ toll. - 1+3 mm	
S	M5 = 5 - 0 + 1 mm From top of deck			M6 = 7 - 1 + 1 mm From top of deck	

SPECIFICATIONS

Temperature Range	Operating: -40°C +85°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 (V _r ≤ 250V DC)																													
Rated Capacitance Range	from 12000 μF to 30000 μF																													
Capacitance Tolerance	±20% at 100 Hz, 20°C [M class IEC-62] on request: -10% +30% at 100 Hz, 20°C [Q class IEC-62]																													
Leakage Current (I_L) (5 min, 20°C)	max I _L = 0.006 C _r V _r + 4 μA																													
Ripple current (I_r)	Refer to table at 85°C and 100Hz: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>FREQUENCY</th> <th>50Hz</th> <th>100 Hz</th> <th>500Hz</th> <th>1000Hz</th> <th>>10kHz</th> </tr> </thead> <tbody> <tr> <td>MULTIPLIER</td> <td>0.8</td> <td>1.0</td> <td>1.2</td> <td>1.3</td> <td>1.5</td> </tr> </tbody> </table> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>AMBIENT TEMP</th> <th>35°C</th> <th>45°C</th> <th>55°C</th> <th>65°C</th> <th>75°C</th> <th>85°C</th> <th>95°C</th> </tr> </thead> <tbody> <tr> <td>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> </tbody> </table> Due to the current load capability of the contact elements, the following limits must not be exceeded: CAPACITOR DIAMETER 76mm 90mm Maximum current 50A 70A		FREQUENCY	50Hz	100 Hz	500Hz	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
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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																													
Life test	After 2,000 hours application of rated voltage at 85°C capacitors meet characteristics aside	Cap change ≤ ±20% tan δ ≤ 200% Leakage current (I _L) < initial limit Impedance (Z) ≤ 200%																												
Shelf life	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 _L) < initial limit																												
Useful life	> 12000 h at 85°C																													
Failure percentage Failure rate	≤ 1% (during useful life) ≤ 70 fit (70 10 ⁻⁹ /h)																													
Self inductance	Approx. 20 nH																													
Reference standards	CECC 30.300 IEC 60384-4 LONG LIFE GRADE																													

K11 TYPE STANDARD RATINGS

Cap μ F	\varnothing x L mm	Tan δ MAX 100 Hz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded
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19000	76x214	0.25	18.0	K11350193__M0J214
20000	76x240	0.25	18.0	K11350203__M0J240
27000	90x220	0.25	21.0	K11350273__M0L220
30000	90x240	0.25	22.0	K11350303__M0L240

Cap μ F	\varnothing x L mm	Tan δ MAX 100 Hz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded
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15000	76x214	0.25	16.0	K11400153__M0J214
16000	76x240	0.25	17.7	K11400163__M0J240
21000	90x220	0.25	21.5	K11400213__M0L220
23000	90x240	0.25	23.2	K11400233__M0L240

Cap μ F	\varnothing x L mm	Tan δ MAX 100 Hz 20°C	Ir a.c. A max 100 Hz 85°C	PART NUMBER stud and insert style excluded
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12000	76x214	0.20	16.0	K11450123__M0J214
13000	76x240	0.20	17.5	K11450133__M0J240
17000	90x220	0.20	20.9	K11450173__M0L220
18000	90x240	0.20	22.5	K11450183__M0L240

RATED
VOLTAGE
VDC

350V

RATED
VOLTAGE
VDC

400V

RATED
VOLTAGE
VDC

450V