

K61 TYPE -40°C +85°C 25000H

RoHS Compliant

- Surge-proof capacitor in aluminium can with insulation sleeve.
- Extremely linear characteristic between 20Hz to 22KHz
- Design optimized for Audio application.
- No effects of sound compression
- Precisely and realistic dynamic of sound.

APPLICATIONS

Designed for professional application. Linear amplifiers, audio filtering.

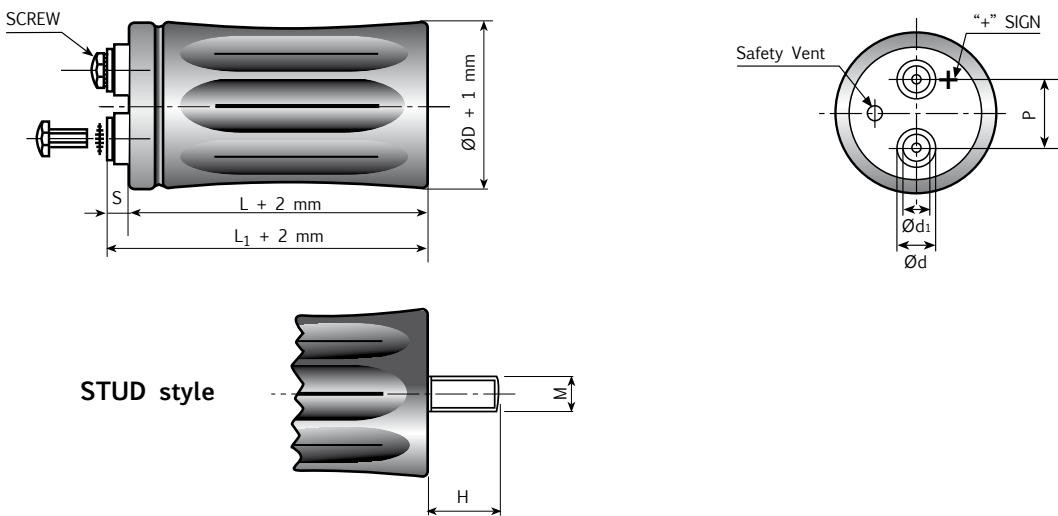


Diagram of dimensions (unit=mm)
Insert and screw threads: Metric (mm), UNF (inches)

| ØD | d | d1 | P | STUD | | INSERT | SCREW | L ₁ | -L[-1+3] | S[-1+1] | INSERT STYLE CODE |
|----|------|------|------|------|----|----------------------|---------------|----------------|----------|---------|-------------------|
| | | | | M | H | | | | | | |
| 35 | 11 | 7.9 | 12.7 | M8 | 12 | M5 | 5MA x 9.5 | 2.5 | | 5 | O |
| 51 | 18.5 | 13 | 22.7 | M12 | 16 | M5 | 5MA x 9.5 | 2.5 | | 5 | H |
| 63 | 18.5 | 13 | 28.6 | M12 | 16 | M5 | 5MA x 9.5 | 2.5 | | 5 | H |
| 63 | 17.3 | 17.3 | 28.6 | M12 | 16 | UNF 1/4-28 Low Post | 1/4-28 x 3/8" | 3 | | 4 | W |
| 63 | 17.3 | 17.3 | 28.6 | M12 | 16 | UNF 1/4-28 High Post | 1/4-28 x 1/2" | 6 | | 7 | R |
| 63 | 7.9 | 7.9 | 28.6 | M12 | 16 | UNF 10-32 Low Post | 10-32 x 1/4" | 2 | | 2.5 | Z |
| 63 | 12 | 7.9 | 28.6 | M12 | 16 | UNF 10-32 High Post | 10-32 x 3/8" | 6 | | 7 | U |
| 76 | 18.5 | 13 | 31.8 | M12 | 16 | M5 | 5MA x 9.5 | 2.5 | | 5 | H |
| 76 | 18.5 | 13 | 31.8 | M12 | 16 | M5 | 5MA x 9.5 | 2.5 | | 7 | L |
| 76 | 23.2 | 17.7 | 31.8 | M12 | 16 | M6 | 6MA x 10 | 4.5 | | 7 | 6 |
| 76 | 17.3 | 17.3 | 31.8 | M12 | 16 | UNF 1/4-28 Low Post | 1/4-28 x 3/8" | 3 | | 4 | W |
| 76 | 17.3 | 17.3 | 31.8 | M12 | 16 | UNF 1/4-28 High Post | 1/4-28 x 1/2" | 6 | | 7 | R |
| 76 | 7.9 | 7.9 | 31.8 | M12 | 16 | UNF 10-32 Low Post | 10-32 x 1/4" | 2 | | 2.5 | Z |
| 76 | 12 | 7.9 | 31.8 | M12 | 16 | UNF 10-32 High Post | 10-32 x 3/8" | 6 | | 7 | U |
| 90 | 23.2 | 17.7 | 31.8 | M12 | 16 | M6 | 6MA x 10 | 4.5 | | 7 | H |

SPECIFICATIONS

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|---|-----------|--------|--------|--------|--------|--------|------------|------|-----|-----|------|-----|--------------|------|------|------|------|------|------|------|------------|-----|-----|-----|-----|-----|-----|-----|--------------------|------|------|------|------|-----------------|-----|-----|-----|-----|
| Temperature Range | Operating: -40°C +85°C Storage : Preferably below +25°C, not exceeding +40°C | [Environmental classification 40/85/56 IEC-68] | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rated Voltage Range (V_r) | from 63V to 100V DC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Surge Voltage (V_p) | V _p = 1.10 V _r | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rated Capacitance Range | from 6800 µF to 47000 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) (mA, 5 min, 20°C) | max I _L = 0.006 C _r V _r + 4 µA At 85°C max I _L = 0.04 C _r V _r µA | Kendeil product limit: I _L = 0.003 C _r V _r | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ripple current (I_r) | Refer to table at 85°C and 100Hz.: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: left;">FREQUENCY</td> <td style="text-align: center;">50Hz</td> <td style="text-align: center;">100Hz</td> <td style="text-align: center;">500 Hz</td> <td style="text-align: center;">1000Hz</td> <td style="text-align: center;">>10kHz</td> </tr> <tr> <td style="text-align: left;">MULTIPLIER</td> <td style="text-align: center;">0.85</td> <td style="text-align: center;">1.0</td> <td style="text-align: center;">1.2</td> <td style="text-align: center;">1.25</td> <td style="text-align: center;">1.3</td> </tr> </table> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: left;">AMBIENT TEMP</td> <td style="text-align: center;">35°C</td> <td style="text-align: center;">45°C</td> <td style="text-align: center;">55°C</td> <td style="text-align: center;">65°C</td> <td style="text-align: center;">75°C</td> <td style="text-align: center;">85°C</td> <td style="text-align: center;">95°C</td> </tr> <tr> <td style="text-align: left;">MULTIPLIER</td> <td style="text-align: center;">2.2</td> <td style="text-align: center;">2.1</td> <td style="text-align: center;">1.8</td> <td style="text-align: center;">1.6</td> <td style="text-align: center;">1.4</td> <td style="text-align: center;">1.0</td> <td style="text-align: center;">0.5</td> </tr> </table> Maximum internal temperature 98°C Due to the current load capability of the contact elements, the following limits must not be exceeded: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: left;">CAPACITOR DIAMETER</td> <td style="text-align: center;">51mm</td> <td style="text-align: center;">63mm</td> <td style="text-align: center;">76mm</td> <td style="text-align: center;">90mm</td> </tr> <tr> <td style="text-align: left;">Maximum current</td> <td style="text-align: center;">30A</td> <td style="text-align: center;">40A</td> <td style="text-align: center;">50A</td> <td style="text-align: center;">70A</td> </tr> </table> | | FREQUENCY | 50Hz | 100Hz | 500 Hz | 1000Hz | >10kHz | MULTIPLIER | 0.85 | 1.0 | 1.2 | 1.25 | 1.3 | 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 | CAPACITOR DIAMETER | 51mm | 63mm | 76mm | 90mm | Maximum current | 30A | 40A | 50A | 70A |
| FREQUENCY | 50Hz | 100Hz | 500 Hz | 1000Hz | >10kHz | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MULTIPLIER | 0.85 | 1.0 | 1.2 | 1.25 | 1.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CAPACITOR DIAMETER | 51mm | 63mm | 76mm | 90mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maximum current | 30A | 40A | 50A | 70A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 Capacitor length ≤ 143 : max acceleration 10g for 3x2 h Capacitor length > 143 : max acceleration 5g for 3x0.5 h | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Life test | After 4,000 hours application of rated voltage at 85°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 2000 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 (V_n, Temp rated I ripple applied) | 250000 h at 40°C 25000 h at 85°C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Failure percentage Failure rate I ripple applied) | ≤ 1% (during useful life) ≤ 25 fit (25 10 ⁻⁹ /h) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Self inductance | Approx. 20 nH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Reference standards | CECC 30.300 IEC 60384-4 LONG LIFE GRADE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

K61 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 | I _r a.c. A max 100 Hz 85°C | PART NUMBER stud and insert style excluded |
|----------------------|------------------------------|---------------------------------------|---|---------------------------------------|--|--|
| 10000 | 51x79 | 0.10 | 11 | 9 | 14.6 | K61063103__M0G079 |
| 14000 | 51x105 | 0.10 | 9 | 8 | 18.7 | K61063143__M0G105 |
| 22000 | 63x105 | 0.11 | 6 | 6 | 28.7 | K61063223__M0H105 |
| 33000 | 76x105 | 0.12 | 5.5 | 5.5 | 31.2 | K61063333__M0J105 |
| 47000 | 76x143 | 0.17 | 4 | 4 | 41.3 | K61063473__M0J143 |

**RATED
VOLTAGE
VDC**

63V

| 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 | I _r a.c. A max 100 Hz 85°C | PART NUMBER stud and insert style excluded |
|----------------------|------------------------------|---------------------------------------|---|---------------------------------------|--|--|
| 8200 | 51x79 | 0.10 | 12 | 8 | 14.4 | K61080822__M0G079 |
| 10000 | 51x105 | 0.10 | 10 | 8 | 17.9 | K61080103__M0G105 |
| 18000 | 63x105 | 0.11 | 6 | 6 | 28.9 | K61080183__M0H105 |
| 28000 | 76x105 | 0.15 | 6 | 6 | 30.2 | K61080283__M0J105 |
| 42000 | 76x143 | 0.17 | 4 | 4 | 41.3 | K61080423__M0J143 |

**RATED
VOLTAGE
VDC**

80V

| 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 | I _r a.c. A max 100 Hz 85°C | PART NUMBER stud and insert style excluded |
|----------------------|------------------------------|---------------------------------------|---|---------------------------------------|--|--|
| 6800 | 51x79 | 0.10 | 14 | 12 | 14.1 | K61100682__M0G079 |
| 8200 | 51x105 | 0.10 | 11 | 8 | 17.9 | K61100822__M0G105 |
| 10000 | 51x105 | 0.10 | 10 | 8 | 17.9 | K61100103__M0G105 |
| 12000 | 63x105 | 0.10 | 7 | 7 | 28.0 | K61100123__M0H105 |
| 15000 | 63x105 | 0.10 | 6 | 6 | 28.7 | K61100153__M0H105 |
| 22000 | 76x105 | 0.11 | 6 | 6 | 30.2 | K61100223__M0J105 |
| 33000 | 76x143 | 0.15 | 5 | 5 | 41.0 | K61100333__M0J143 |

**RATED
VOLTAGE
VDC**

100V

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