### Specifications

**Nominal value** | **Model** | **Adjustment to nominal** | **Temperature coefficient (ppm/°C)** | **Calibration Conditions** | **Dissipation (typical)** | **Stability (per year)** | **Max voltage** | **Max Frequency** | **Terminals** | **Capacitor type**
--- | --- | --- | --- | --- | --- | --- | --- | --- | --- | ---
1 pF | SCA-1pF | ±0.1 pF | ≤ 15 Vac | 2 bnc connectors + gnd | 0.002 | ±0.1 pF | 500 | 10 kHz | Air capacitors
10 pF | SCA-10pF | ±0.1 pF | ±0.1 pF | 1 kHz | 500 | 10 kHz | 1kHz | Silvered mica mechanically stabilized hermetically sealed
100 pF | SCA-100pF | ±0.1 pF | ±0.1 pF | 1 kHz | 500 | 10 kHz | 1kHz | Silvered mica mechanically stabilized hermetically sealed
1,000 pF | SCA-1000pF | ±0.1 pF | ±0.1 pF | 1 kHz | 500 | 10 kHz | 1kHz | Silvered mica mechanically stabilized hermetically sealed
10,000 pF | SCA-10000pF | ±0.1 pF | ±0.1 pF | 1 kHz | 500 | 10 kHz | 1kHz | Silvered mica mechanically stabilized hermetically sealed

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| Nominal value | Model | Adjustment to nominal | Temperature coefficient (ppm/°C) | Calibration Conditions | Dissipation (typical) | Stability (per year) | Max voltage | Max Frequency | Terminals | Capacitor type |
--- | --- | --- | --- | --- | --- | --- | --- | --- | --- | ---
5 μF | SCA-5μF | ±0.02% | ±50 | 1 Vac Series Model 1 kHz | 0.0005 | ±200 ppm | 50 | 10 kHz | 2 binding posts + gnd | Metallized polypropylene sulfide hermetically sealed
10 μF | SCA-10μF | ±0.04% | ±50 | 1 Vac Series Model 1 kHz | 0.0005 | ±200 ppm | 50 | 10 kHz | 2 binding posts + gnd | Metallized polypropylene sulfide hermetically sealed
50 μF | SCA-50μF | ±0.05% | ±50 | 1 Hz data included | 0.001 | ±200 ppm | 22 Vrms† | 1 kHz | 4 binding posts + gnd | Metallized polypropylene sulfide hermetically sealed
100 μF | SCA-100μF | ±0.05% | ±50 | 1 Hz data included | 0.001 | ±200 ppm | 22 Vrms† | 1 kHz | 4 binding posts + gnd | Metallized polypropylene sulfide hermetically sealed
1,000 μF | SCA-1000μF | ±0.05% | ±150 | 1 kHz data included | 0.001 | ±200 ppm | 22 Vrms† | 1 kHz | 4 binding posts + gnd | Metallized polypropylene sulfide hermetically sealed
5,000 μF | SCA-5000μF | ±0.05% | ±150 | 1 kHz data included | 0.001 | ±200 ppm | 22 Vrms† | 1 kHz | 4 binding posts + gnd | Metallized polypropylene sulfide hermetically sealed
10,000 μF | SCA-10000μF | ±0.05% | ±150 | 1 kHz data included | 0.001 | ±200 ppm | 22 Vrms† | 1 kHz | 4 binding posts + gnd | Metallized polypropylene sulfide hermetically sealed
190 μF | SCA-190μF | ±0.02% | ±50 | 1 Vac Series Model 1 kHz | 0.003 | ±100 ppm | 500 | 10 kHz | 2 binding posts + gnd | Metallized polypropylene sulfide hermetically sealed

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### Environment:
- Operating: +10 to +40°C, <80% RH
- Storage: -20 to +65°C

### Calibration Conditions:
Calibrated at 23°C, <50% RH, Traceable to SI

### Transit Case:
(see page 3)
Connection Schematics for Low Values

Low-value SCA’s have 3 terminals -- HI and LO, and GND. The capacitance of the unit is shown as CHL. There is additional capacitance to the case shown by CHG and CLG. These capacitances will add to CHL unless the 3rd terminal, GND, is connected to the GUARD of the measuring instrument.

\[
\begin{align*}
&\text{HIGH} \quad \text{C}_{\text{HL}} \quad \text{LOW} \\
&\text{C}_{\text{HG}} \quad \text{C}_{\text{LG}} \quad \text{GND}
\end{align*}
\]

Connection Schematics for High Values

High-value SCA’s have 5 binding posts -- HI CURRENT, HI SENSE, LO CURRENT, LO SENSE, and GND. This 4-terminal connection circuit has special wiring and low-resistance conductors to minimize dissipation and parasitic inductance, and improve frequency characteristics.

\[
\begin{align*}
&\text{SENSE} \quad \text{CURRENT} \\
&\text{HIGH} \quad \text{HIGH} \quad \text{LOW} \quad \text{LOW}
\end{align*}
\]
SCA Series

SCA Data Sheet/ Dec. 2022

Ordering Information

Capacitance Standard: Select from table above
Custom value: SCA-XXX
Transit case for SCA units: SRC-100, for 2 units; SRC-10-n, for n units
For deleted case version, add " - DC" at the end of the part number

Transit cases

Optional Model SRC-100 or SRC-10-n lightweight transit cases provides mechanical protection and insulation from temperature changes during transportation or shipping. It is suitable for transporting and storing two or more units.