

LSUC 003ROC 3400F NH LE

The Ultracapacitor, also known as double-layer capacitor, stores energy by means of a static charge as opposed to a battery

It is used for energy storage applications which undergo very frequent charge and discharge cycles at high current and short duration. It features a wide operating temperature range, making it an ideal energy storage device for extreme environments.

It can be applied in wind power, hybrid systems, industrial automation, power backup and stabilization. Imagination is its only boundary.



PERFORMANCE SPECIFICATIONS

| | |
|------------------------------|-------------|
| Rated Voltage(Nominal) | 3.0 V |
| Surge Voltage | 3.2 V |
| Capacitance | 3400 F |
| Capacitance Tolerance | -5% / + 15% |
| Max. ESR DC | 0.14 mΩ |
| Typical ESR DC ¹ | 0.12 mΩ |
| Total Energy | 4.25 Wh |
| Max. Current ² | 3.4 kA |
| Leakage Current ² | < 8 mA |

¹ Internal control value

² The stated maximum peak current should not be used in normal operation and is only provided as a reference value.

ENVIRONMENTAL SPECIFICATIONS

| | |
|-------------------------|----------------------------|
| Operating Temperature | -40°C to 65°C |
| Operating Humidity (RH) | Up to 95%, condensing |
| Storage Conditions | -20°C to 25°C Up to 85% RH |

LIFE INFORMATION

| | |
|---|------------------|
| Endurance Life (65 °C) | 1500hr |
| Capacitance Change ³ | < 20% |
| ESR DC Change ⁴ | < 100% |
| Projected Life (25 °C) | 10 Years |
| Capacitance Change ³ | < 20% |
| ESR DC Change ⁴ | < 100% |
| Projected Cycle Life (25 °C) ⁵ | 1,000,000 Cycles |
| Capacitance Change ³ | < 20% |
| ESR DC Change ⁴ | < 100% |
| Shelf Life (25 °C) ⁶ | 4 Years |

³ Decrease from minimum Capacitance value.

⁴ Increase from Max. ESR value.

⁵ Cycle Life may vary for different working conditions. (e.g. voltage or temperature)

⁶ Stored uncharged state under appropriate storage conditions.

THERMAL SPECIFICATIONS

| | |
|---|-------|
| Max. Continuous Current $\Delta T=15\text{ }^{\circ}\text{C}^7$ | 165 A |
| Max. Continuous Current $\Delta T=40\text{ }^{\circ}\text{C}^7$ | 270 A |
| Thermal Resistance ($^{\circ}\text{C}/\text{W}$) ⁸ | 3.9 |

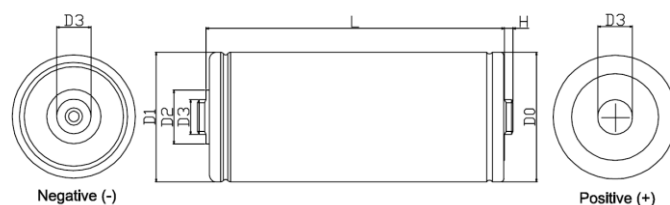
⁷ Initial state value.

⁸ The specification is calculated under limited conditions.

MECHANICAL SPECIFICATIONS⁹

| | | | | |
|---------------|--------------------------------------|------------------|-----------|------------|
| D0 | $\varnothing 60 \pm 1.0\text{ mm}$ | | | |
| D1 | $\varnothing 60.7 \pm 0.7\text{ mm}$ | | | |
| D2 | $\varnothing 25 \pm 0.1\text{ mm}$ | | | |
| L | $138 \pm 0.5\text{ mm}$ | | | |
| Mount Options | ST01 | WT01 | LT01 | LT02 |
| D3 | M16, P1.0 | $\varnothing 14$ | M16, P2.0 | M12, P1.75 |
| H | 4 ± 0.1 | 3.18 ± 0.1 | 14 | 14 |
| Weight | 515 g | 515 g | 520 g | 520 g |
| Safety Vent | Side Notch | | | |

⁹ Dimensions and weight may differ with terminals and it may change without notice.



COMPLIANCE SPECIFICATIONS

| | |
|-------------------|---|
| Certifications | UL MH46367 Vol1 |
| Environmental | RoHS Directive 2011/65/EU REACH |
| Shock & Vibration | IEC 60068-2-27 : 2008 IEC 60068-2-6 : 2007 |