

Double-Layer Capacitors in Cylindrical Metal Case with very High Capacitances in the Farad Range

Special Features

- Storage capacitors with very high capacitance values up to 3000 F and a rated voltage of 2.7 VDC
- Discharge current up to 2200 A
- Maintenance-free
- With cylindrical metal case
- Series connection possible
- According to RoHS 2002/95/EC

General Data

| UR | CN | Dimensions | | Part number | Typical applications |
|------|--------|------------|-----|--------------------------------|--|
| | | D | L | | |
| 2.7V | 1500 F | 60 | 73 | SCSCAIC150Z000MV ₋₋ | - Automotive - Railway technology |
| | 2000 F | 60 | 100 | SCSCAIC200Z100MV ₋₋ | - Wind power systems - Uninterruptible power supply (UPS) |
| | 3000 F | 60 | 136 | SCSCAIC300Z200MV ₋₋ | - Industry |

Construction

Encapsulation:

Cylindrical aluminium case

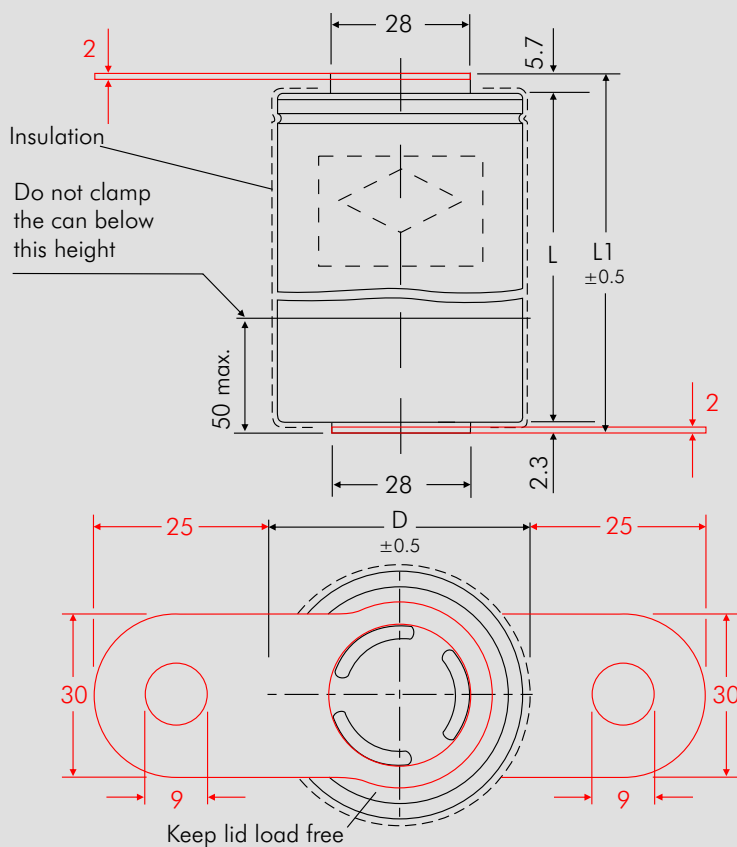
Terminations:

Aluminium plates (optional)

Marking:

Colour: Black. Marking: Gold

The new SuperCap C60 range offer the possibility of achieving nearly every capacitance or voltage value by cascading of the cells. The cost-effective manufacturing of the components in cylindrical cases enables convenient substitution of other brands.



Part number completion:

Standard: = 00
Aluminium plates: = 0L

— Laser welded aluminium plates for series or parallel connection (cascading) of the single cells.

| UR | CN | D | L | L1 |
|------|--------|----|-----|-----|
| 2.7V | 1500 F | 60 | 73 | 81 |
| | 2000 F | 60 | 100 | 108 |
| | 3000 F | 60 | 136 | 144 |

Dims. in mm.

When connected in series cases should be kept isolated.

Rights reserved to amend design data without prior notification.

Continuation

Technical Data

| Capacitance: | CN | 1500 F | 2000 F | 3000 F |
|--------------------------|-------------------|-------------------|--------------|--------------|
| Capacitance tolerance: | - | ±20% | | |
| Rated voltage: | UR | 2.7 V | | |
| Rated current: | IC | 150 A | 180 A | 240 A |
| Pulse current: | IP | up to 1200 A | up to 1600 A | up to 2200 A |
| Internal resistance: | RDC | 0.47 mΩ | 0.35 mΩ | 0.29 mΩ |
| Max. stored energy: ±20% | E _{max.} | 5.5 kJ | 7.5 kJ | 11 kJ |
| Operating temperature: | T _{op} | -30° C ... +65° C | | |
| Storage temperature: | T _{st} | -40° C ... +70° C | | |
| Weight: | m | 275 g | 355 g | 500 g |
| Volume: | V | 0.21 l | 0.28 l | 0.39 l |

Additional Data

| | | |
|---------------------|---|--------|
| Case: | - | Al99.5 |
| Screw terminations: | - | M8 x 2 |

Comparative Data

| | | | | |
|-------------------------|----------------|-----------|-----------|-----------|
| Lifetime: | | | | |
| in hours ¹⁾ | h | 90 000 | | |
| in cycles ²⁾ | Cycles | 500 000 | | |
| Energy density: | | | | |
| gravimetric | E _d | 5.5 Wh/kg | 5.7 Wh/kg | 6.1 Wh/kg |
| volumetric | E _v | 7.3 Wh/l | 7.4 Wh/l | 7.8 Wh/l |

1) Requirements:
 $\Delta C/CNl \leq 30\%$, $ESR \leq 2$ times specified limit, $I_{leak} \leq 2$ times of initial value.

2) Test conditions:
 $\Delta C/CNl \leq 30\%$, $ESR \leq 2$ times specified limit, $I_{leak} \leq 2$ times of initial value
 (cycles: charging to U_R , 30 sec rest, discharging to $U_R/2$, 30 sec rest).