

LS Ultracapacitor Cell



22Ø Series / 33Ø Series / 35Ø Series PCB mounting type cell

| Series | Rated Voltage | Capacitance | Part No. | Max. ESR(DC) | Max. Current | Leakage Current | Max. Stored Energy | Weight | Type | Dimension |
|--------|---------------|-------------|------------------------|--------------|--------------|-----------------|--------------------|--------|----------------|-----------|
| | V | F | | mΩ | A | mA | Wh | kg | | Ø x mm |
| 22 | 2.8 | 100 | LSUC 002R8S 0100F EA | 9.0 | 74 | <0.3 | 0.10 | 0.023 | Snap-in | 22 x L46 |
| | | 120 | LSUC 002R8S 0120F EA | 9.0 | 81 | <0.4 | 0.13 | 0.023 | | 22 x L46 |
| | 3.0 | 100 | LSUC 003R0S 0100F EA | 9.0 | 79 | <0.3 | 0.12 | 0.023 | | 22 x L46 |
| 33 | 2.8 | 360 | LSUC 002R8L 0360F CU03 | 3.2 | 234 | <1.0 | 0.39 | 0.065 | Lug | 33 x L61 |
| | | 320 | LSUC 002R8L 0320F EM | 2.0 | 273 | <1.0 | 0.34 | 0.078 | | Lug |
| 35 | 2.8 | 350 | LSUC 002R8L 0350F EA | 3.2 | 231 | <1.0 | 0.38 | 0.072 | Lug or Snap-in | 35 x L61 |
| | | 400 | LSUC 002R8L 0400F EA | 3.0 | 255 | <1.0 | 0.43 | 0.080 | | 35 x L66 |
| | | 450 | LSUC 002R8L 0450F EA | 3.0 | 268 | <1.0 | 0.49 | 0.088 | | 35 x L71 |
| | | 600 | LSUC 002R8L 0600F EA | 3.2 | 288 | <1.3 | 0.65 | 0.090 | | 35 x L71 |
| | 3.0 | 720 | LSUC 002R8L 0720F EA | 2.0 | 413 | <1.5 | 0.78 | 0.130 | Lug or Snap-in | 35 x L105 |
| | | 380 | LSUC 003R0L 0380F EA | 3.2 | 257 | <1.0 | 0.47 | 0.072 | | 35 x L61 |
| | | 430 | LSUC 003R0L 0430F EA | 3.0 | 282 | <1.0 | 0.53 | 0.080 | | 35 x L66 |
| | | 480 | LSUC 003R0L 0480F EA | 3.0 | 295 | <1.2 | 0.60 | 0.088 | | 35 x L71 |

60Ø Series Busbar connection type cell

| Series | Rated Voltage | Capacitance | Part No. | Max. ESR(DC) | Max. Current | Leakage Current | Max. Stored Energy | Weight | Type | Dimension |
|--------|---------------|----------------------|----------------------|--------------|--------------|-----------------|--------------------|-----------|-------------|------------|
| | V | F | | mΩ | A | mA | Wh | kg | | Ø x mm |
| 60 | 2.7 | 650 | LSUC 002R7C 0650F NH | 0.57 | 640 | <1.5 | 0.65 | 0.200 | Cylindrical | 60 x L51.5 |
| | | 1200 | LSUC 002R7C 1200F NH | 0.33 | 1160 | <2.7 | 1.21 | 0.280 | | 60 x L74 |
| | | 1500 | LSUC 002R7C 1500F NH | 0.28 | 1426 | <3.0 | 1.51 | 0.320 | | 60 x L85 |
| | 3.0 | 2000 | LSUC 002R7C 2000F NH | 0.27 | 1753 | <4.0 | 2.02 | 0.380 | | 60 x L102 |
| | | 3000 | LSUC 002R7C 3000F NH | 0.23 | 2396 | <5.0 | 3.03 | 0.515 | | 60 x L138 |
| | | 3400 | LSUC 02R85C 3400F NH | 0.23 | 2719 | <8.0 | 3.83 | 0.515 | | 60 x L138 |
| 3.0 | 3000 | LSUC 003R0C 3000F NH | 0.23 | 2663 | <5.0 | 3.75 | 0.515 | 60 x L138 | | |
| | 3400 | LSUC 003R0C 3400F NH | 0.23 | 2800 | <8.0 | 4.25 | 0.515 | 60 x L138 | | |

- Max. Current : Non-repeated (Calculated value)
- Operating Temperature Range : - 40 ~ 65°C

Lug & Snap-in Terminal Type



• Snap-in (100F/120F)

• Lug (320F ~ 720F)

• Snap-in (4pin, 350F ~ 720F)

Cylindrical Terminal Type



• Short Screw (ST01)

• Weldable (WT01)

• Long Screw (LT01) M16 Terminal

• Long Screw (LT02) M12 Terminal

LS Ultracapacitor Module



LSUM 129R6C 0062F EA

PCB type series / Busbar type series

| Series | Part No. | Rated Voltage | Capacitance | Max. ESR(DC) | Max. Continuous Current | Stored Energy | Weight | Balancing | Monitoring | Dimension |
|-------------|-------------------------|---------------|-------------|--------------|-------------------------|---------------|--------|-------------------|--|----------------------|
| | | V | F | mΩ | A | Wh | kg | | | L x W x H(mm) |
| PCB type | LSUM 016R8L 0058F EA | 16.8 | 58 | 22 | 20 | 2.3 | 0.7 | Active or Passive | - | 245 x 47 x 76.6 |
| | LSUM 168R0L 0005F EA | 168 | 5.8 | 240 | 12 | 22.7 | 6.5 | Passive | Temperature(NTC)/Half Voltage monitoring | 235 x 367 x 79 |
| Busbar type | LSUM 016R2C 0500F EA | 16.2 | 500 | 1.7 | 200 | 18.2 | 5.6 | Active or Passive | Temperature(NTC) | 67.2 x 416.2 x 175.9 |
| | LSUM 032R4C 0250F EA | 32.4 | 250 | 3.3 | 150 | 36.5 | 10.0 | Passive | - | 137.1 x 426.6 x 184 |
| | LSUM 048R6C 0166F EA DC | 48.6 | 166 | 5.0 | 130 | 54.5 | 14.0 | Active or Passive | Temperature(NTC)/Over Voltage | 194.5 x 419.5 x 177 |
| | LSUM 051R3C 0166F EA | 51.3 | 166 | 5.0 | 100 | 60.7 | 12.0 | Active or Passive | Temperature(PTC)/Over Voltage | 590.4 x 136 x 171 |
| | LSUM 086R4C 0093F EA | 86.4 | 93 | 11.3 | 80 | 96.4 | 27.0 | Passive | Temperature(PT100) | 517 x 265 x 210.5 |
| | LSUM 129R6C 0062F EA | 129.6 | 62 | 13.2 | 240 | 144.6 | 55.0 | Active or Passive | Temperature & Voltage(CAN 2.0B) | 720 x 405 x 226 |

CTC series

CTC (Cell To Cell) series module is available from 16V to 108V, is extendable and customizable without additional costs to the customer

| Series | Part No. | Adapted Cell | | | Rated Voltage | Capacitance | Max. ESR(DC) | Max. Continuous Current | Stored Energy | Weight | Dimension | |
|----------|-------------------------|---------------|-------------|--------|---------------|-------------|--------------|-------------------------|---------------|--------|----------------|----------------|
| | | Rated Voltage | Capacitance | Series | | | | | | | | |
| | | V | F | | | | | | | | | |
| CTC type | LSUM 048R6C 0066F EA YJ | 2.7 | 1200 | 18 | 48.6 | 66 | 7.2 | 160 | 21.7 | 10.3 | 279 x 418 x 71 | |
| | LSUM 064R8C 0050F EA YJ | | | 24 | 64.8 | 50 | 9.6 | 130 | 29.2 | 13.2 | 362 x 418 x 71 | |
| | LSUM 048R6C 0083F EA YJ | | | 18 | 48.6 | 83 | 6.1 | 180 | 27.2 | 11.5 | 312 x 418 x 71 | |
| | LSUM 064R8C 0062F EA YJ | | | 24 | 64.8 | 62 | 8.1 | 140 | 36.2 | 14.8 | 406 x 418 x 71 | |
| | LSUM 048R6C 0111F EA YJ | | 2000 | 18 | 48.6 | 111 | 5.9 | 180 | 36.4 | 13.5 | 363 x 418 x 71 | |
| | LSUM 064R8C 0083F EA YJ | | | 24 | 64.8 | 83 | 7.8 | 150 | 48.4 | 17.5 | 474 x 418 x 71 | |
| | LSUM 048R6C 0166F EA YJ | | 3000 | 18 | 48.6 | 166 | 5.0 | 200 | 54.5 | 17.2 | 471 x 418 x 71 | |
| | LSUM 064R8C 0125F EA YJ | | | 24 | 64.8 | 125 | 6.7 | 160 | 72.9 | 22.5 | 618 x 418 x 71 | |
| | LSUM 016R2C 0250F EA AG | | 2.7 | 1500 | 6 | 16.2 | 250 | 2.0 | 150 | 9.1 | 3.9 | 311 x 166 x 70 |
| | LSUM 016R2C 0500F EA AG | | | | | 500 | 1.7 | 200 | 18.2 | 5.9 | 470 x 166 x 70 | |

Monitoring for CTC series module

| Temperature Sensor | Temperature Interface | Connector | Cell Voltage Monitoring | Balancing |
|--------------------|-----------------------|-----------|-------------------------|-------------------|
| NTC Thermistor | Analog | 4pin | OVA(Optional) | Active or Passive |

- Leakage Current can be changed by Balancing method
- Customized module can be supplied under the customer's requirement

- NTC Thermistor & Group voltage monitoring is analog method
- Max Continuous Current : $\Delta T = 40^{\circ}\text{C}$



LSUM 016R8L 0058F EA



LSUM 168R0L 0005F EA



LSUM 016R2C 0500F EA



LSUM 032R4C 0250F EA



LSUM 048R6C 0166F EA DC



LSUM 051R3C 0166F EA



LSUM 086R4C 0093F EA



LSUM 048R6C 0166F EA YJ



LSUM 016R2C 0500F EA AG



LSUM 129R6C 0062F EA