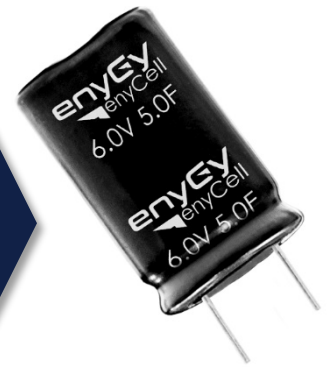




## Enygy® enyCell Series, Module Type (Electric Double Layer Capacitors)

Datasheet EC6R050510030M

- Endurance: 6.0V 65°C 1000 hours
- High capacitance and small size
- Low ESR
- Long cycle life
- Contains UL-Recognized cell components
- RoHS compliant



### Specifications

|                   |                |       |
|-------------------|----------------|-------|
| Part Number       | EC6R050510030M |       |
| Rated Voltage     | V              | 6.0   |
| Capacitance       | F              | 5.0   |
| ESR, 1kHz         | mΩ             | 50    |
| ESR, DC           | mΩ             | 90    |
| LC(72hr)          | mA             | 0.060 |
| Specific Energy   | Wh/kg          | 3.79  |
| Specific Power    | kW/kg          | 15.15 |
| Max. Peak Current | A              | 10.34 |
| Weight            | g              | 6.60  |

- Capacitance and Equivalent Series Resistance (ESR) measured according to IEC62391-1 at +25°C, with current in milliamps (mA) = 10°C
- Leakage Current at 25°C after 72 hour charge and hold
- Specific Energy (Wh/kg) =  $(\frac{1}{2} * C * V^2 / 3600) / \text{weight}$
- Specific Power (kW/kg) =  $(V^2 / 4 * ESR) / \text{weight}$
- Max Peak Current in Amps (A), 1 second discharge from rated voltage to half rated voltage =  $(\frac{1}{2} * C * V) / (1 + ESR * C)$

### Characteristics

|                                 |   |   |
|---------------------------------|---|---|
| Operating Temperature Range     | -40 ~ +65°C                                     |   |
| Rated Voltage                   | 6.0 VDC   |   |
| Capacitance Tolerance           | -10% ~ +20%                                     |   |
| Temperature Characteristics     | Capacitance change                              | Within ±5% of initial value at +25°C    |
|                                 | Internal resistance                             | Within ±50% of initial value at +25°C   |
| Endurance                       | Duration  | 1000 hours                              |
|                                 | Capacitance charge                              | Within ≤30% of initial value            |
|                                 | Internal resistance                             | Within ≤100% of initial specified value |
| Shelf Life                      | After 1000 hours no load test same as endurance |   |
| Lifetime at RT <sup>(1)</sup>   | 10 years  |   |
| Cycle Life(25°C) <sup>(2)</sup> | 500,000 cycles                                  |   |

(1)  $|\Delta C| \leq 30\%$  of initial value and  $|ESR| \leq 100\%$  of initial specified value.

(2) Cycle : between rated voltage and half rated voltage under constant current at 25°C.

### Dimensions Unit:mm

|                  |         |      |
|------------------|---------|------|
| L                | 32.0    |      |
| W                | 21.0    |      |
| D                | 10.5    |      |
| P                | Type-C  | 5.5  |
|                  | Type-S  | 15.5 |
|                  | Type-H  | 10.5 |
| Φd               | 0.6     |      |
| Single Cell Size | ΦD x L  |      |
|                  | 10 x 30 |      |

