



Enygy® enyCap 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
- UL recognized
- 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	3.57
Specific Power	kW/kg	14.29
Max. Peak Current	A	10.34
Weight	g	7.00

- 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) = $(V^2 / 4 * \text{ESR}) / \text{weight}$
- Max Peak Current in Amps (A), 1 second discharge from rated voltage to half rated voltage = $(\frac{1}{2} * C * V) / (1 + \text{ESR} * C)$

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 ⁽¹⁾	10 years	
Cycle Life(25°C) ⁽²⁾	500,000 cycles	

(1) $|\Delta C| \leq 30\%$ of initial value and $|\text{ESR}| \leq 100\%$ 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	

