

UCR27V3000B

1 Summary

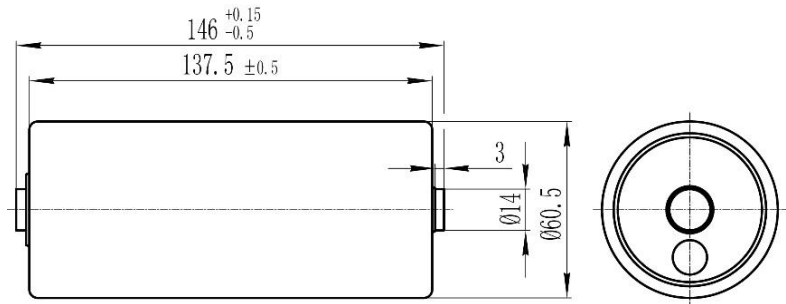
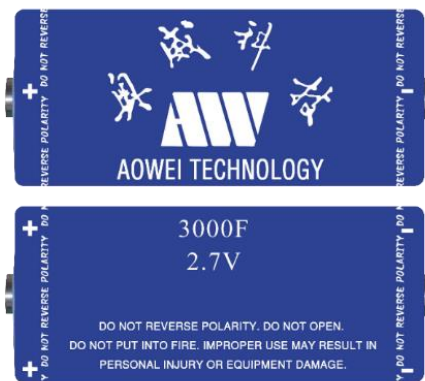
Characteristics

- CE、RoHS、UN3499 certified
- Working temperature window -40 ~ 65°C
- Up to 1,000,000 cycles (1.35 ~ 2.7V)
- Extremely high power density
- Multiple protection design, safe and reliable
- Accurate CMS regulation and control with good linear charge and discharge behavior

Applications

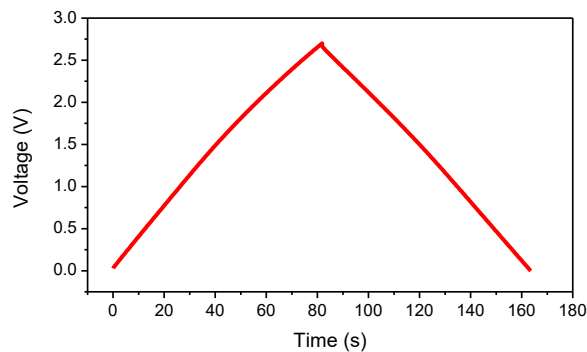
- Tram
- Metro
- hybrid vehicle
- Energy-saving elevator
- Pulse device
- Wind turbine pitch control
- Power compensator

2 Dimension



Dimension of UCR27V3000B

3 Product Specification



Charge-discharge curve under 0-2.7V of UCR27V3000B

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Part Number	UCR27V3000B	
Nominal Capacitance (F)	3000	
Capacitance Fluctuation (%)	±10	
Operating Voltage Window (V)	2.7	
Surge Voltage (V)	2.9	
Discharge Cut-off Voltage (V)	0	
Maximum Charge/Discharge Current (A)	2200	
DC Resistance (mΩ)	0.25	
Leakage Current (mA)	5.0 (72h)	
Stored Energy (Wh)	3.0	
Energy Density (Wh kg ⁻¹ /Wh L ⁻¹)	5.5/7.6	
Power Density (kWh kg ⁻¹ /Wh L ⁻¹)	13/16	
Cycle Life (cycles)	1,000,000(1.35-2.7V)	
Weight (g)	550	
Endurance Test at High Temperature(h)	1500h @65°C	Capacity retention > 80%
		Resistance increasing rate < 100%
Operating Temperature (°C)	-40 ~ +65	
Storage Temperature (°C)	-40 ~ +70	

4 Test method

Test conditions

- Ambient temperature:
25±5°C
- Relative humidity:
25% ~ 85%
- Ambient pressure:
86 ~ 106kPa

Standards and conformity

- IEC 62576-2009 Electric double-layer capacitors for use in hybrid electric vehicles-Test methods for electrical characteristics
- QC/T 741-2014 Ultra-capacitor for electric vehicles
- Q/TFDQ 7-2011 UCR Series Ultra capacitor

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5 Announcements

Operating requirements

- Operating exceeding the upper or lower operating temperature limit is strictly prohibited.
- Operating exceeding the maximum or minimum operating voltage is strictly prohibited.
- Crush, collision, penetration or disassembly of the capacitor is strictly prohibited.
- Abandoning used capacitor is strictly prohibited, please discharge capacitor to 0V before recycling
- Please keep away from all heat sources
- Please avoid contacting water, oil, acid, alkali and other corrosive matters
- Juveniles should operate the capacitor accompanied by parents

Storage and transportation requirements

- Ambient temperature: -30 ~ 70°C
- Relative humidity: 0~95%
- Ambient pressure: 86 ~ 106kPa
- Prevent exposing in the sun, keep away from heat sources and keep dry and ventilated
- Avoid contact of liquid or corrosive matters
- Please handle gently during handling process, prevent inversion, collision, crush or violent vibration during the process of transportation
- The unit can be transported by cars, trains, ships, etc

6 Product liability

- Aowei shall not be held responsible for the accident which caused by the violation of this specification
- Improvements of the product or upgrading of related technologies may change without further notice
- Please deal with the used ultra capacitor according to local environmental protection regulations. The used capacitor shall be treated as general industrial waste. Considering the recycling classification and resource reutilization of trashed or used chemical power units, used capacitor should be submitted to the company with professional qualifications. For the matters of disposal and recycle, GB/T 33598-2017 Recycling of traction battery used in electric vehicle-Dismantling specification can be the reference. Aowei could provide part of technical support depending on mutual agreements.
- To learn about the new products, welcome to contact us.