



This specification shall be applied to LiFePO4 rechargeable battery cell supplied by AA Portable Power Corp.

Product Specification

Type	Cylindrical Lithium Iron Phosphate Battery
Model	LFP-RCR123A
Voltage	Nominal Voltage: 3.2 V
Capacity (0.2C discharge)	Nominal: 450 mAh Minimum: 436 mAh
CV Charging Voltage	Maximum: 3.65 V±0.03V
Charge current	Standard: 0.2C (90mA) Rapid: 0.5C (225 mA) Maximum: 1C (450mA)
Discharge current	Standard: 0.2C (90mA) Max. Continuous: 1C (450 mA)
Discharge cut-off voltage	2.0 V
Internal impedance	≤ 80 mΩ
Dimension (Including shrink sleeve/label)	Diameter: 16.5 ±0.2mm; Height: 33.5 ±0.5mm
Weight	17 g (Approx)
Operation temperature and relative humidity Range	Charge: 0~ 45 °C; 60±25%R.H. Discharge: - 20 ~ 60 °C; 60±25%R.H.
Storage temperature	- 20 ~ 25 °C; 60±25%R.H. Must charge once every 6 months. If with protection circuit, must charge once every 3 months.

Testing environment

Unless otherwise specified, all tests stated in this document shall be performed at 23±2°C.

Performance and test conditions

- Standard charge: 0.2C= 90 mA constant current (CC) charge to 3.65V, followed by 3.65V constant voltage (CV) charge until current taper to ≤0.01C
- Standard discharge: 0.2C= 90 mA CC discharge to 2.0V.

Welding allowable part on a cell

Welding is not allowed on cell side wall

Insulation

Can top face (positive terminal) and side is covered with insulation tubing

Charge State of Battery before shipment

Approximately 30% charged



Storage

Store the battery at low temperature (below 20°C is recommended), low humidity, no dust and no corrosive gas atmosphere.

Handling and Prohibitions

1) Electrical misusage

- Use dedicated charger
- Don't charge the cell/battery reversely.

2) Environmental misusage

- Don't leave the cell/battery near the fire or a heated source.
- Don't throw the cell/battery into the fire.
- Don't charge or use the cell/battery in a car or similar place where inside of temperature may be over 60°C.
- Don't immerse, throw or wet the cell/battery in water / seawater.

3) Others

- Don't store the cell/battery in a pocket or a bag together with metallic objects such as keys, necklaces, hairpins, coins, or screws.
- Don't short circuit (+) and (-) terminals with metallic object intentionally.
- Don't heat partial area of the battery with heated objects such as soldering iron.
- Don't hit with heavy objects such as a hammer, weight.
- Don't step on the cell/battery and throw or drop the cell/battery on the hard floor to avoid mechanical shock.
- Don't disassemble the cell/battery or modify the cell/battery design including electric circuit.
- Don't use seriously scared or deformed cell/battery.
- Don't put the cell/battery into a microwave oven, dryer or high-pressure container.
- Don't use or assemble with different brands, types and/or models of cell/battery such as dry cell/battery, nickel-metal hydride cell/battery, or nickel-cadmium cell/battery.

[Warning!]

- Don't use or assemble old and new cell/battery together.
- Stop charging the cell/battery if charging isn't completed within the specified time.
- Stop using if the cell/battery becomes abnormally hot, discoloration, deformation, or abnormal conditions are detected during use, charge, or storage.
- Keep away from fire immediately when leakage or foul odors are detected.
- If liquid leaks onto your skin or cloths, wash well with fresh water immediately. If liquid leaking from the cell/battery and getting into your eyes, don't rub your eyes but wash them with clean water and go to see a doctor immediately.
- If the terminals of the cell/battery become dirty, wipe with a dry cloth before use.
- The cell/battery can be used within the certain temperature ranges. Don't exceed these ranges. Check specification first.



AA Portable Power Corp
825 S 19th Street, Richmond, CA 94804
Tel: 510-525-2328 Fax: 510-439-2808
<http://www.batteryspace.com> Sales@batteryspace.com

[Caution!]

- Battery must be charged with constant current-constant voltage (CC/CV).
- Charge current must be controlled by specified value in cell/battery's specification.
- Discharge current must be controlled by specified value in cell/battery's specification. Cut-off voltage of discharging must be over 2V/cell.
- Keep the cell/battery away from babies and children to avoid any accidents such as swallow. If children use the cell/battery, their guardians should explain the proper handling method and precaution before using.
- Before using the cell/battery, be sure to read the user's manual and precaution of handling.
- Before using charger, be sure to read the user's manual of the charger.
- Before installing and removing the cell/battery from application, be sure to read user's manual of the application.
- Replace the cell/battery when running time becomes much shorter than usual. Cover terminals with insulating tape before proper disposal.
- If the cell/battery is needed to be stored for a long period, battery should be removed from the application and stored in a place where humidity and temperature are low.
- To prevent the deterioration of the performance caused by heat, cell/battery shall be positioned away from the area where heat is generated in the application and the charger.

Please contact us when you need any help for custom battery packs and safety concerns

AA Portable Power Corp/dba BatterySpace.com
825 S 19TH street, Richmond, CA 94804 USA
Tel: 510-525-2328
Fax: 510-439-2808
Email: sales@batteryspace.com