



LI-ION POWER TECHNOLOGY CO.,LTD.

3.2V 50AH

——LPT50AF

TECHNICAL DATA SHEET

6000 life cycles

3C Continuous

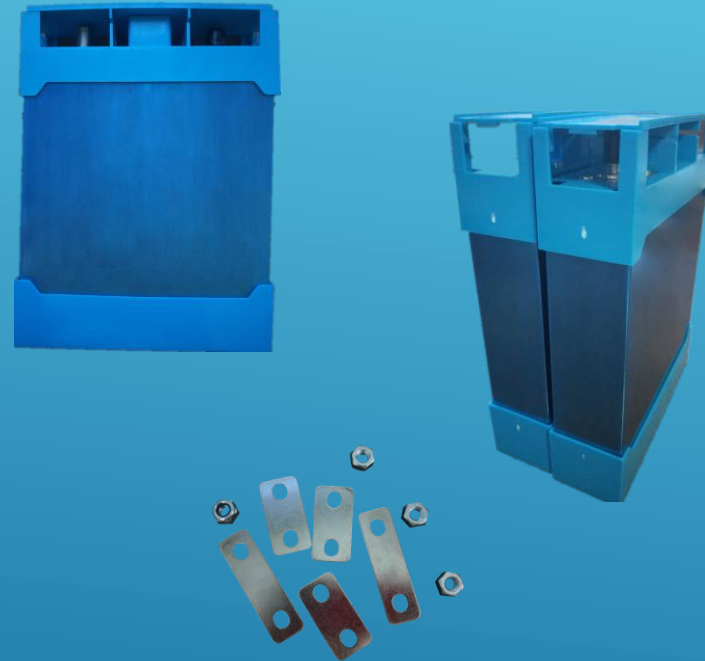
10C Peak

**MSDS**  
**UN38.3**



# TECHNICAL PARAMETERS

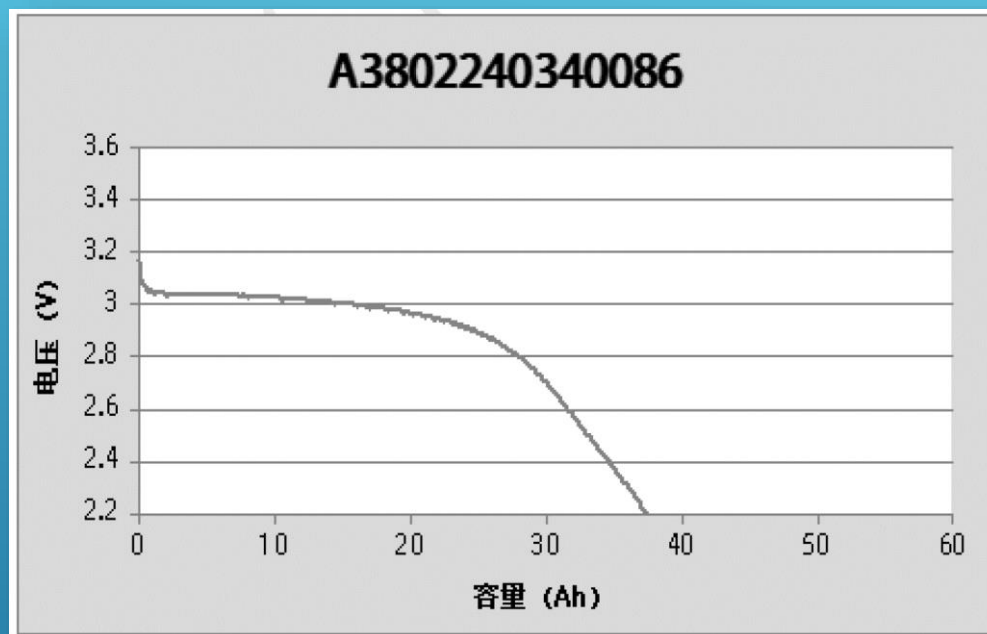
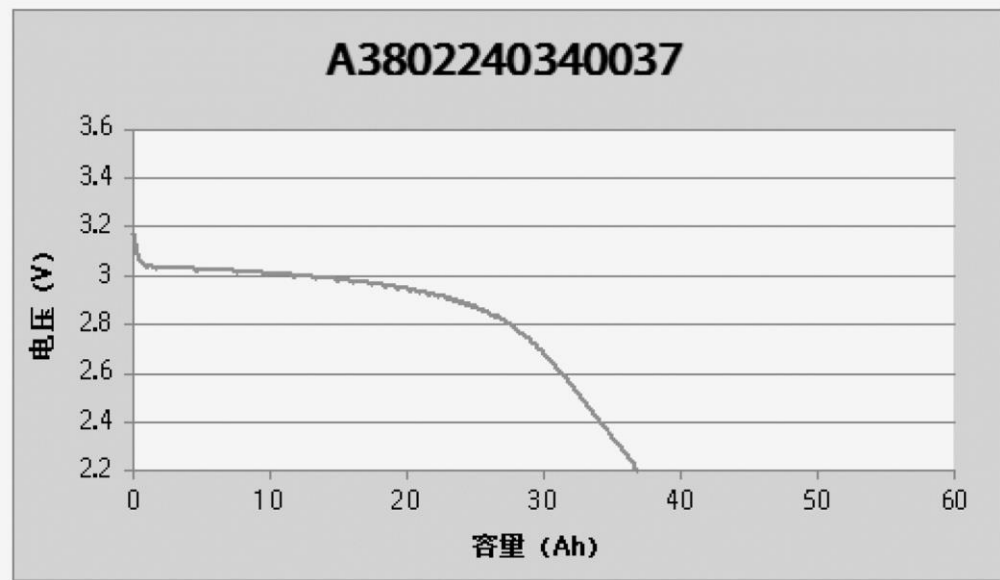
- ▶ Dimension: 36\*130\*170mm
- ▶ Battery Size Including Endcaps: 38.5mm\*133mm\*174mm
- ▶ Nominal Capacity: 50Ah
- ▶ Minimum Capacity: 50Ah
- ▶ Internal Impedance:  $\leq 0.8\text{m}\Omega$
- ▶ Nominal Voltage: 3.2V
- ▶ Cell Weight Including Package:  $\leq 1.5\text{kg}$
- ▶ Charge Cut-off Voltage: 3.65V
- ▶ Discharge Cut-off Voltage: 2.2V
- ▶ Standard Charge Method: 0.3C 15A
- ▶ Peak Discharge Current: 500A 10C (10S)
- ▶ Max. Continuous Discharge Current: 150A (3C)
- ▶ Peak Charge Current: 100A (2C)
- ▶ Life Cycles: 6000 times (80% DOD, 0.5C Continuous Discharge Current)
- ▶ Discharge Temperature Range:  $-20 \sim 50^{\circ}\text{C}$
- ▶ Charge Temperature Range:  $0 \sim 50^{\circ}\text{C}$
- ▶ Storage Temperature:  $-10 \sim 45^{\circ}\text{C}$
- ▶ OEM Labels





# TECHNICAL CURVES

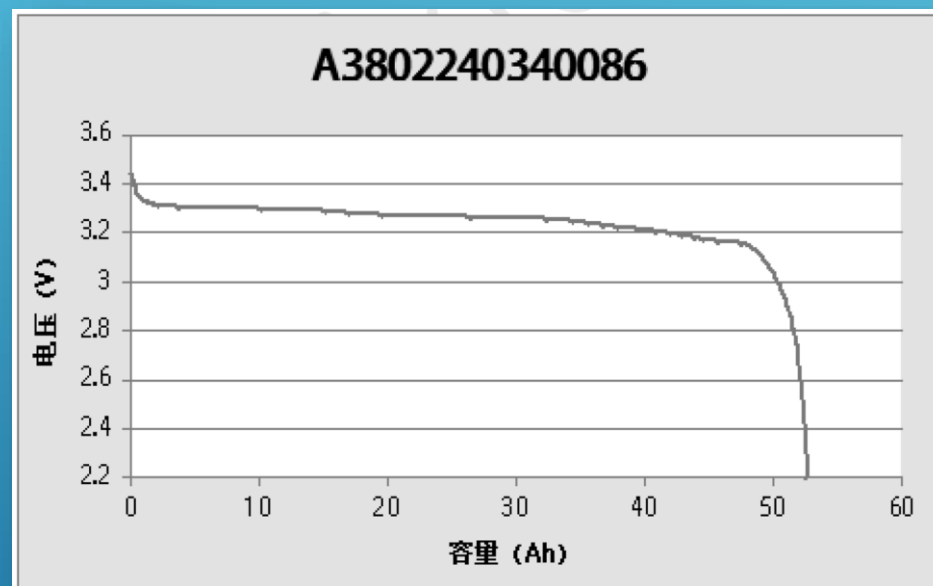
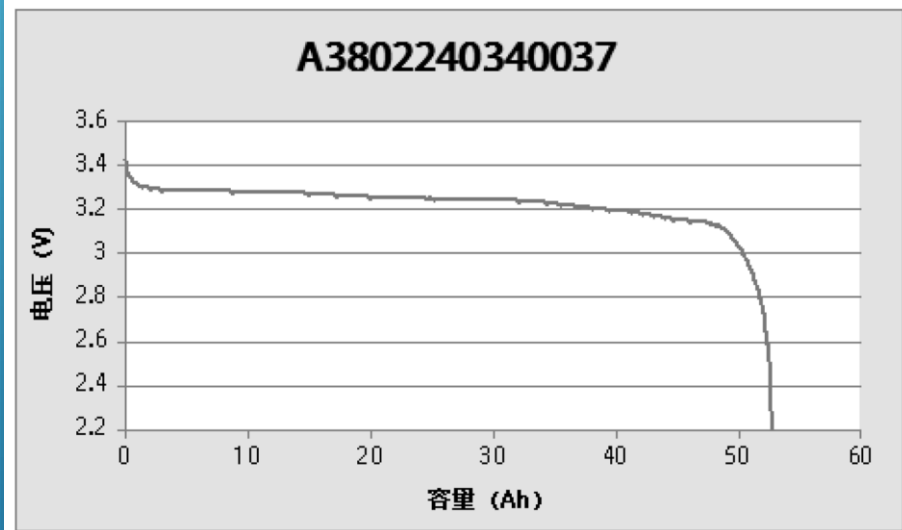
A1 Discharge Curve Under -20°C



A1 Discharge Curve Under -20°C

# TECHNICAL CURVES

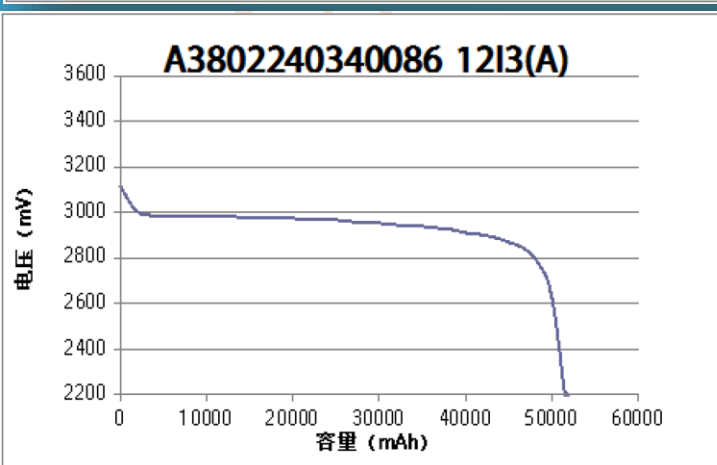
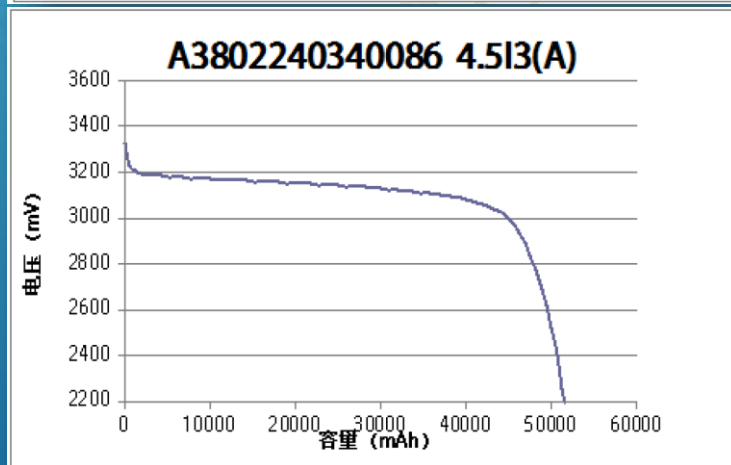
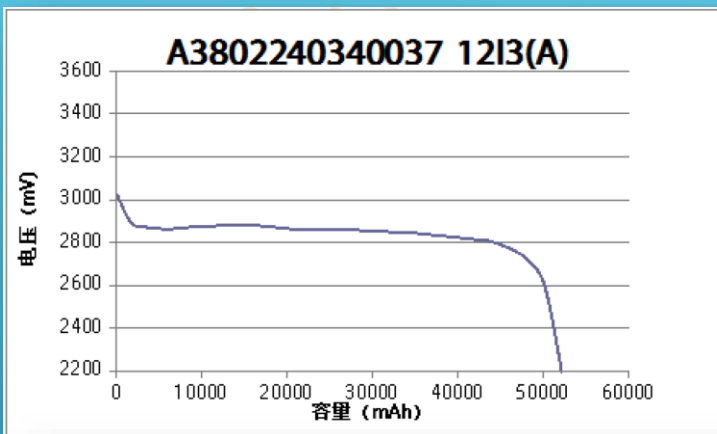
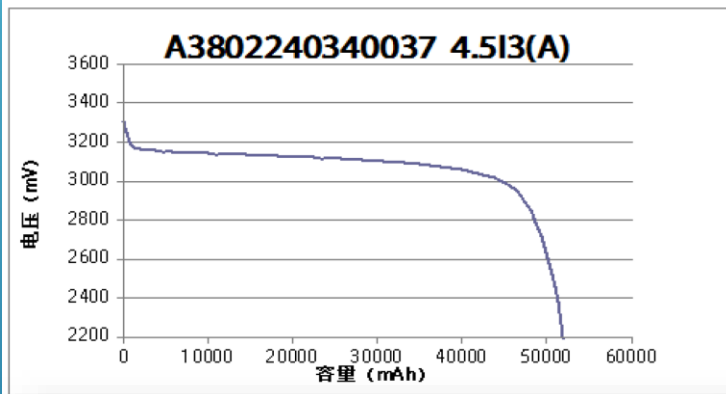
A2 Discharge Curve Under 55 Degree



A2 Discharge Curve Under 55 Degree

# TECHNICAL CURVES

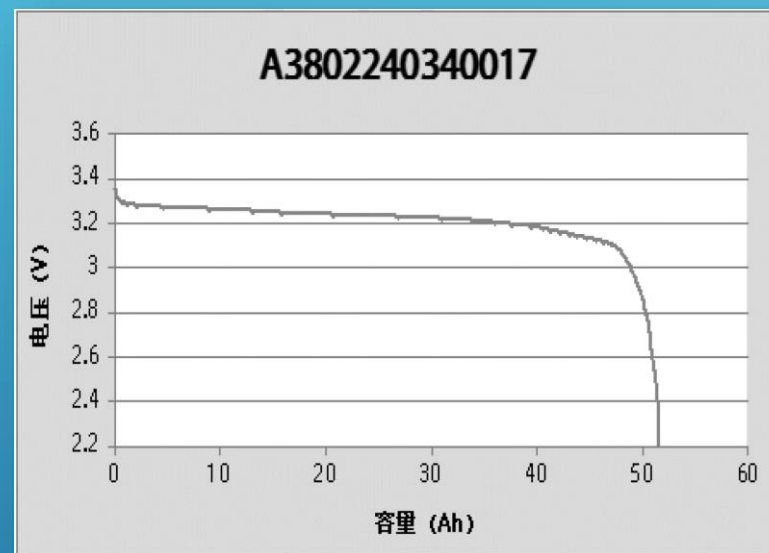
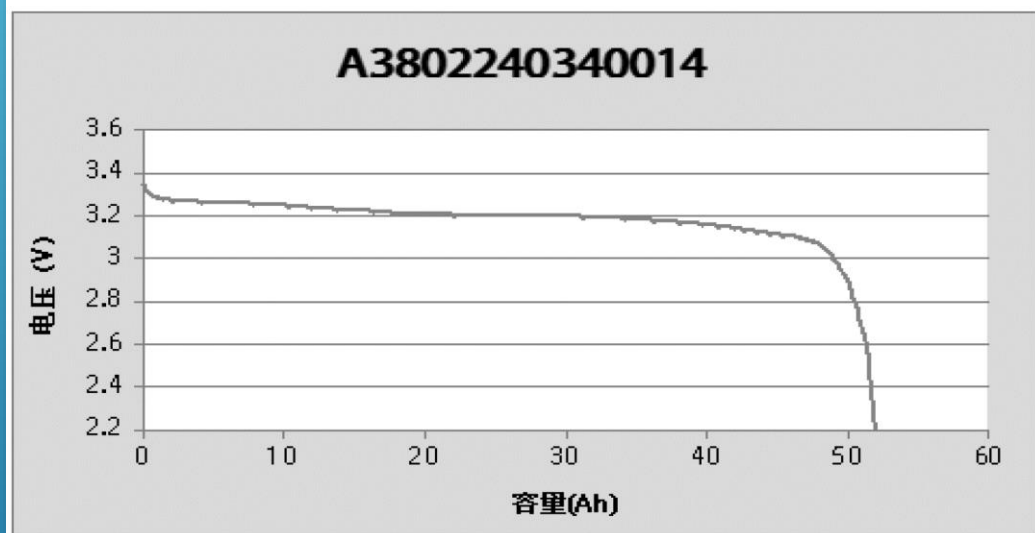
A3 Rate Discharge Curve



A3 Rate Discharge Curve

# TECHNICAL CURVES

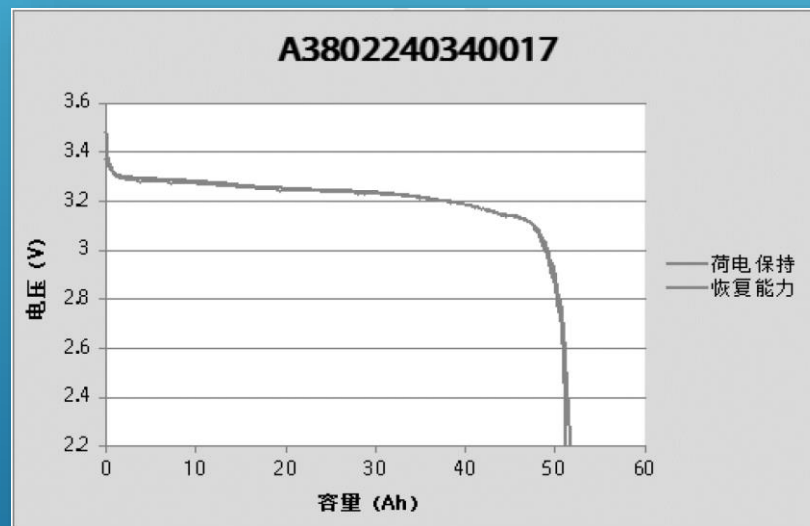
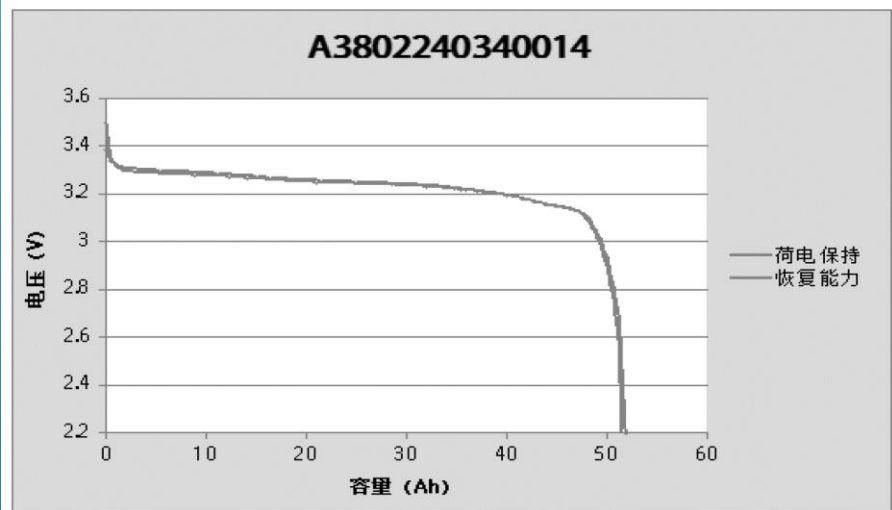
A4 Charge Retention and Recovery Ability Under Normal Temperature



A4 Charge Retention and Recovery Ability Under Normal Temperature

# TECHNICAL CURVES

A5 Charge Retention and Recovery Ability Under High Temperature



A5 Charge Retention and Recovery Ability Under High Temperature

## ▶ Shipment

- ▶ The Cell shall be shipped in voltage range of 3.2 ~ 3.4V or in accordance with customers' requirement. The remaining capacity before charging shall be changed depending on the storage time and conditions.

## ▶ Warranty

- ▶ The Warranty period of cell is made according to business contract, However, even though the problem occurs within this period, LPT won't replace a new cell for free as long as the problem is not due to the failure of LPT manufacturing process or is due to customer's abuse or misuse.
- ▶ LPT will not be responsible for trouble occurred by handling outside of the precautions in instructions. LPT will not be responsible for trouble occurred by matching electric circuit, cell pack and charger.
- ▶ LPT will be exempt from warrant any defect cells during assembling after acceptance.

## ▶ Precautions and Safety Instructions

- ▶ Lithium-ion rechargeable batteries subject to abusive conditions can cause damage to the cell and/or personal injury. Please read and observe the standard cell precautions below before using utilization. The customer is required to contact LPT in advance, if and when the customer needs other applications or operating conditions than those described in this document.
- ▶ LPT will take no responsibility for any accident when the cell is used under other conditions than those described in this Document.



## ▶ Standard cell Precautions

- ▶ a. Do not expose the cell to extreme heat or flame.
- ▶ b. Do not short circuit, over-charge or over-discharge the cell.
- ▶ c. Do not subject the cell to strong mechanical shocks.
- ▶ d. Do not immerse the cell in water or sea water, or get it wet..
- ▶ f. Do not disassemble or modify the cell.
- ▶ g. Do not handle or store with metallic like necklaces, coins or hairpins, etc.
- ▶ h. Do not use the cell with conspicuous damage or deformation.
- ▶ i. Do not connect cell to the plug socket or car-cigarette-plug.
- ▶ j. Do not make the direct soldering onto a cell.
- ▶ k. Do not touch a leaked cell directly.
- ▶ l. Do not use for other equipment.
- ▶ m. Do not use Lithium-ion cell in mixture.
- ▶ n. Do not use or leave the cell under the blazing sun (or in heated car by sunshine).
- ▶ o. Keep cell away from children.
- ▶ p. Do not drive a nail into the cell, strike it by hammer or tread it.
- ▶ q. Do not give cell impact or fling it.

## ▶ Cell Operation Instructions

### ▶ Charging

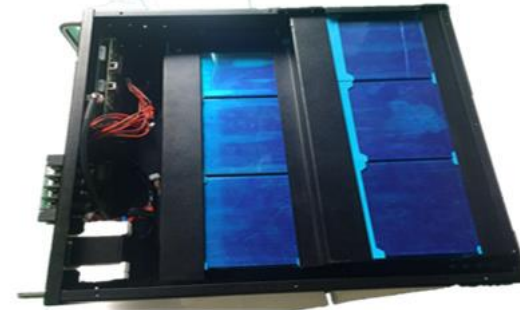
- ▶ a. Charge the cell in a temperature range of 0°C to + 50°C.
- ▶ b. Charge the cell at a constant current of 0.3C until 3.65V, and then at a constant voltage of 3.65V until 0.05C. Charge rates greater than 1C are NOT recommended. (C : Rated Capacity of cell)
- ▶ c. Use a constant current, constant voltage (CC/CV) lithium-ion (Li+) cell charge controller.
- ▶ d. Do not continue to charge cell over specified time.

### ▶ Discharging

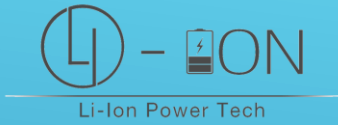
- ▶ a. Recommended cut-off voltage to 2.2V. Recommended max continuous discharge current is 3C.
- ▶ b. For maximum performance, discharge the cell in a temperature range of -20°C to +50°C.

## ▶ Storage Recommendations

- ▶ In case of long period storage (more than 3 months), storage the cell at temperature range of -10 ~ +45°C, low humidity, no corrosive gas atmosphere, No press on the cell; After more than 3 months, the batteries need to be charged according to the standard charge and discharge process.



BATTERY PACKS MADE OF 3.2V 50AH CELLS



- ▶ HK Office: BRIGHT WAY TOWER, NO.33 MONG KOK ROAD, KOWLOON, HONGKONG
- ▶ USA Office: 7427 South Main Street, Midvale, Utah 84047
- ▶ China Factory: No.8, Dongtin Lake Road, Economic and Development Zone, Qinhuangdao, China.

▶ **Welcome to Contact:**

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