



KENT Li Battery For Home Inverters



Smart LFP Battery Compatible with all Inverters

A6-1280

A6-2560

A6-3840

12.8V100Ah

25.6V100Ah

25.6V150Ah

June 2026

User Manual

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1. HOW TO USE THIS MANUAL

This manual is designed to help installers and users safely install, operate and maintain KENT LiFePO₄ Batteries.

Before installation and operation:

- Read all safety instructions carefully
- Understand all warnings and cautions provided in this manual
- Follow the recommended installation procedures
- Retain this manual for future reference
- Contact authorized KENT service personnel if assistance is required

Failure to follow the instructions in this manual may result in equipment damage, reduced battery performance, personal injury or loss of warranty coverage.

1.1 Skill Required

This manual is intended for qualified electrical installers and end users responsible for operating and maintaining the battery system.

A. Qualified Electrical Installers

Installers should possess:

- Experience working with DC power systems and energy storage solutions
- Knowledge of local electrical regulations and safety standards
- Ability to interpret technical documentation, wiring diagrams and installation instructions
- Understanding of inverters and backup power applications

B. End Users/ Operators

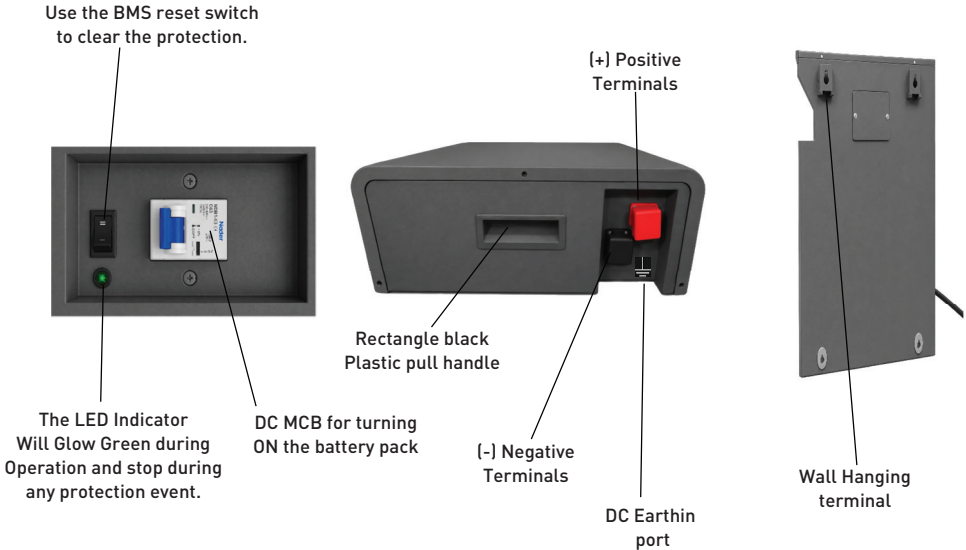
Users responsible for day-to-day operation should:

- Understand battery operating indicators
- Follow recommended operating and storage practices
- Monitor battery status through the KENT Smart Home App
- Check basic troubleshooting steps before raising a service request
- Contact authorized service personnel for repairs or technical support.

2. PRODUCT FEATURES

Smart Energy Storage Designed for Modern Home Power Backup Applications.

KENT LiFePO₄ Batteries are engineered to deliver safe, reliable and long-lasting energy storage for residential backup systems. Equipped with advanced Battery Management System (BMS) technology, these batteries provide enhanced safety, superior efficiency and intelligent performance monitoring.



Core Technologies:

- Ultra-Safe LiFePO₄ Chemistry
- Intelligent Battery Management System (Smart BMS)
- Maximum Efficiency
- Long Cycle Life Performance
- External Protection Switch (DC MCB)
- Passive Cell Balancing Technology

Key Features

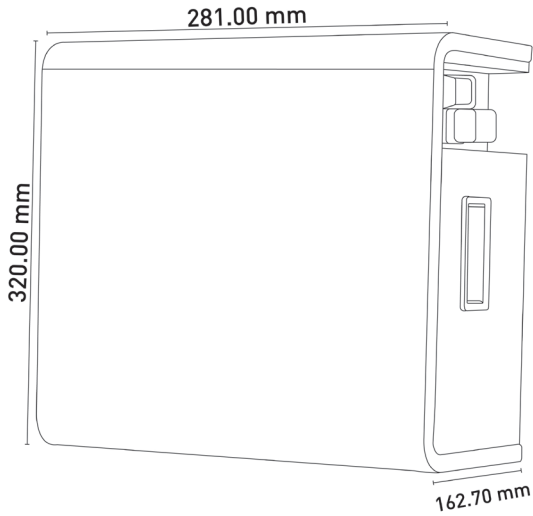
- **Smart BMS Protection:** The integrated Battery Management System continuously monitors battery health and provides protection against:
 - Overcharge
 - Over-discharge
 - Overload
 - Short Circuits
 - High-temperature Conditions
 - Low-temperature Conditions
- **Maintenance-Free Operation:** Designed for hassle-free ownership with no water topping or routine maintenance required
- **Eco-Friendly Design:** Manufactured using environmentally responsible materials (100% recyclable components) and free from lead-acid contaminants
- **Built-in Bluetooth Connectivity:** Monitor battery performance, state of charge, voltage, current, temperature and battery health directly through the KENT Smart Home App available on Android and iOS devices.

Key Advantages

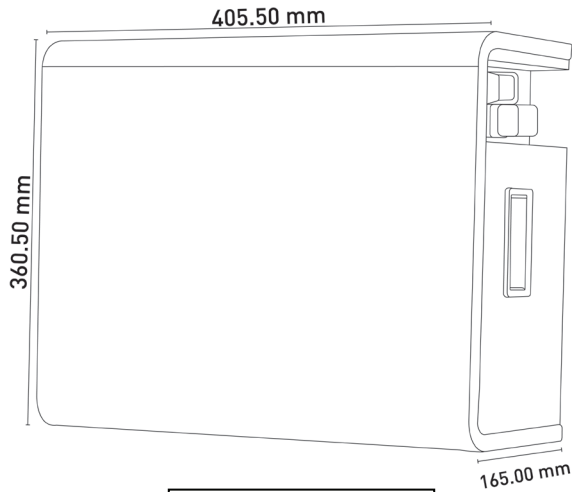
- High energy density for compact installations
- Fast charging capability for reduced downtime
- Stable performance under recommended operating conditions
- Zero water topping requirements
- No harmful gas emissions during normal operation
- Long service life with superior cycle performance

2.1 Product Size and Weight

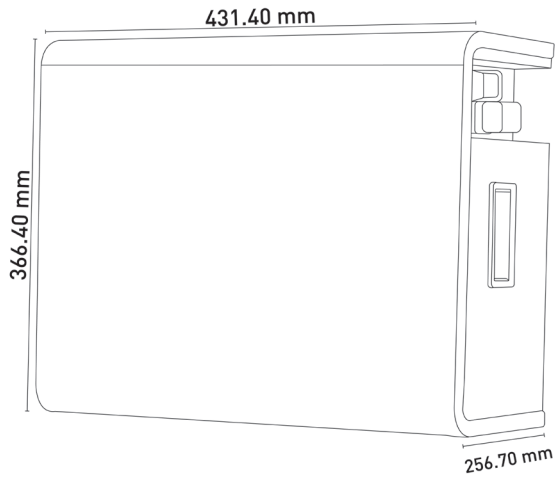
Compact design & light weight for Easy Installation



12.8V 100Ah
Approx. Weight-14Kg



25.6V 100Ah
Approx. Weight-24Kg



25.6V 150Ah
Approx. Weight-32Kg

*Actual dimensions and specifications may vary slightly due to continuous product improvements.

3. INSTALLATION & USAGE

Safe installation is critical to ensure reliable performance and warranty compliance.

3.1 Installation

Installation must only be carried out by qualified personnel.

Before Installation:

- Inspect the battery for any signs of physical damage
- Verify model compatibility with the inverter and charging system
- Ensure the installation location is dry, clean and well ventilated

Installation Guidelines:

- Verify correct polarity and ensure all connections are secure before switching the battery ON
- Use recommended cable sizes:
 - 12.8V 100Ah: 16 sq.mm cable
 - 25.6V 100Ah: 25 sq.mm cable
 - 25.6V 150Ah: 25 sq.mm cable
- Use suitable M6 cable lugs
- Maintain a minimum clearance of 10 inches around the battery for proper ventilation
- Ensure proper DC earthing using the designated grounding point
- Secure all electrical connections before energizing the system
- Verify terminal tightness before operation
- After completing all connections between the battery and inverter, switch ON the MCB and then the BMS switch

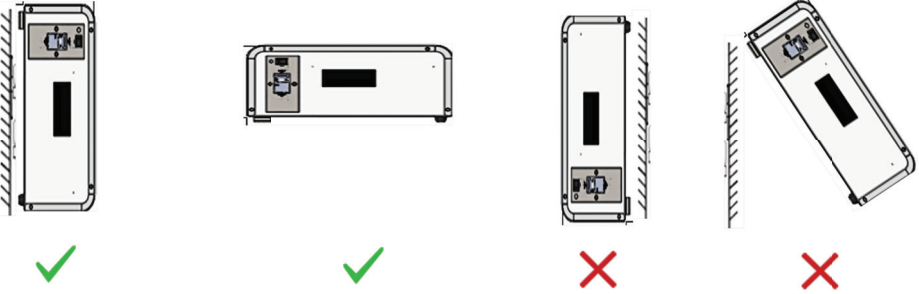
System design, load sizing and compatibility with external equipment such as inverters, chargers and solar systems remain the responsibility of the installer or system integrator.

Improper installation may affect battery performance and may void warranty coverage.

3.2 Installation Angle

Recommended Mounting Orientation

To ensure safe operation, effective heat dissipation and optimum battery performance, install the battery only in the approved orientation shown below.



Installation Guidelines

- Install the battery in an upright position only
- Ensure the battery is mounted securely on a stable surface or approved wall-mount structure
- Do not install the battery upside down or at excessive angles
- Avoid mounting in locations exposed to direct sunlight, excessive heat, water ingress or corrosive environments
- Maintain adequate clearance around the battery for ventilation and servicing

Note:

Incorrect mounting orientation may affect battery performance and could result in warranty exclusion.

3.3 Battery Handling Process

Proper handling during transportation, unpacking and installation helps prevent damage and ensures safe operation.

Step	Image	Procedure
Step 1	Unpacking the Battery	Carefully remove the battery from its packaging and inspect the outer carton for any signs of damage that may have occurred during transportation.
Step 2	Opening the Packaging	Open the packaging using suitable tools such as scissors or a box cutter. Take care not to damage the battery enclosure while opening the carton.
Step 3	Lifting the Battery	Use the integrated carrying handle provided on the battery to lift and move the unit safely. Warning: Always follow safe lifting practices. Larger battery models may require two persons for lifting and positioning.
Step 4	Visual Inspection	Place the battery on a clean, flat surface and perform a visual inspection. Check for: <ul style="list-style-type: none"> • Physical damage • Cracks or dents • Loose components • Damaged terminals • Signs of moisture ingress Do not install a damaged battery
Step 7	Avoid Excessive Loading	Do not place heavy objects on top of the battery or its packaging. Excessive weight may damage the enclosure and internal battery components.
Step 8	Prevent Mechanical Damage	Do not puncture, drill, strike or expose the battery to sharp tools or objects. Mechanical damage can compromise battery safety and performance.
Step 9	Correct Storage Position	Always store and transport the battery in the upright position. Never place the battery upside down or on its side unless specifically instructed by KENT.

4. SAFETY INSTRUCTIONS

Safety is a shared responsibility. Please read and follow all instructions before installing or operating the battery.

General Safety

- Do not expose the battery to fire, sparks, open flames or excessive heat
- Do not expose the battery to water, rain, moisture or flooding conditions
- Always maintain correct polarity (+/-) during installation
- Ensure all electrical connections are secure before energizing the system
- Disconnect power sources before performing maintenance
- Use only compatible charging systems and inverters
- Keep the battery away from children and unauthorized personnel

Electrical Safety

- Installation must only be performed by qualified personnel
- Use insulated tools while working on battery terminals
- Never short-circuit the battery terminals
- Ensure proper DC earthing using the designated grounding point

Warning ⚠

Incorrect installation, misuse, physical damage or unauthorized modifications may result in fire, electric shock, equipment damage, serious injury or loss of warranty coverage.

5. HANDLING GUIDELINES

Follow these recommendations to maximize battery life and maintain safe operation.

Operating Guidelines

- Recharge the battery within 24 hours after discharge.
- Use the battery only within specified operating conditions.
- Ensure proper ventilation around the battery.
- Keep battery terminals clean and secure.
- Periodically inspect cables and electrical connections.

Do Not

- Mix batteries of different capacities, ages or brands
- Connect batteries in series or parallel configurations to increase capacity unless specifically approved by KENT
- Open, disassemble or modify the battery
- Drop, puncture, or expose the battery to excessive vibration

- Place heavy objects on the battery
- Use the battery for applications other than intended use

Storage Guidelines

For long-term storage:

- Store the battery at 40-60% State of Charge (SOC)
- Recharge the battery every 90 days
- Store in a clean, dry and well-ventilated environment
- Recommended storage temperature: Up to 40°C
- Avoid prolonged exposure to extreme temperatures

Warning

Improper storage or handling may permanently reduce battery capacity and performance.

6. REGISTERING YOUR BMS DEVICE-STEP-BY-STEP

Monitor your battery in real time using the KENT Smart Home App.

What You Will Need

- KENT Smart Home App installed on your smartphone
- KENT LFP Battery with integrated BMS
- Bluetooth enabled on your smartphone
- Active internet connection
- Registered KENT account
- Phone located within 1 meter of the battery during pairing

6.1: Open the Service & Install Menu

From the Home Screen of the KENT Smart Home App:

- Tap the Service & Install card
OR
- Select the Service tab from the bottom navigation menu

Available options include:

- Request Service
- Request Installation
- Buy AMC
- Add IoT Device
- Spare Parts
- Service History
- Product Replacement

Select Add IoT Device to continue.

6.2: Select Add 'IoT Device'

Tap Add IoT Device.

The application will open the device registration screen displaying the option: "Connect IoT Device"

6.3: Choose Device Type

Select:

KENT LFP Battery

This option is specifically designed for KENT LiFePO₄ Battery products equipped with Bluetooth-enabled Battery Management Systems.

A	IoT Water Purifier Connect a smart KENT water purifier
B	KENT LFP Battery Connect a KENT LiFePO ₄ battery

6.4: Scanning for BMS Devices

The application will automatically search for nearby battery devices.

Before scanning:

- Enable Bluetooth
- Enable Location Permission
- Ensure Battery MCB is ON
- Confirm Battery LED Indicator is illuminated
- Keep your smartphone within 1 meter of the battery

The scanning process may take a few seconds.

6.5: Select Your Device

Once discovered, the application will display available battery devices.

Information displayed:

- Device ID (e.g. BMS-407681260402934D)
- Signal Strength (RSSI value in dBm)
- Battery Chemistry: LiFePO₄

Select the Device ID that matches the identification label on your battery.

Note:

If the device does not appear, move closer to the battery and retry scanning.

6.6: Device Pairing & Registration

The application performs three verification steps:

Step 1: Verify Device

Authenticates the battery as a genuine KENT product

Step 2: Connect via Bluetooth

Establishes a secure Bluetooth Low Energy (BLE) connection

Step 3: Register Device

Links the battery to your KENT account.

Once completed, a success message will appear:

"Device Configured Successfully"

Tap Done to access the Battery Dashboard.

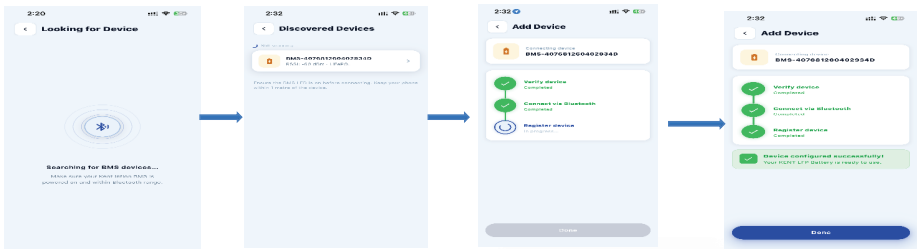
7. KENT Li BATTERY - MAIN DASHBOARD

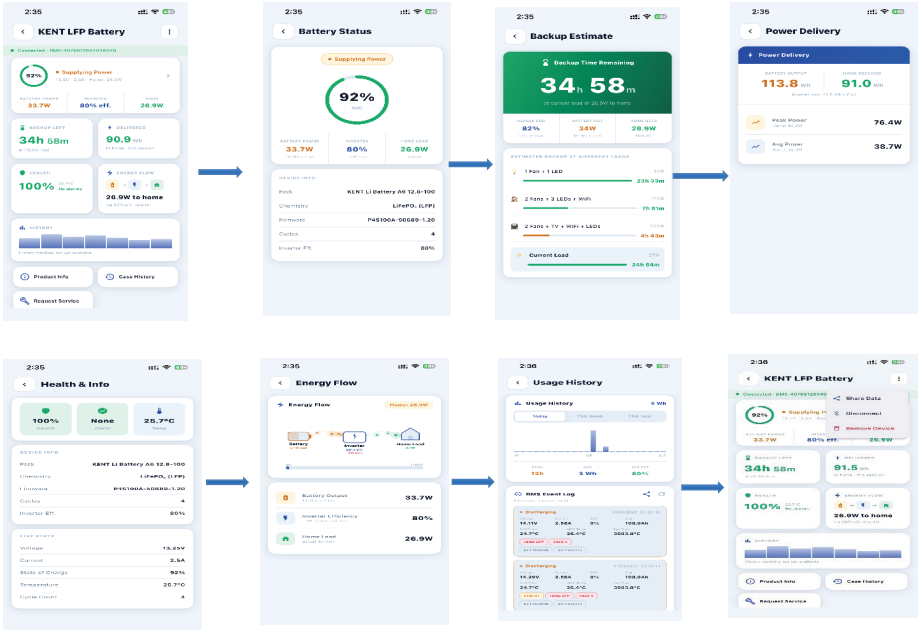
Monitor battery performance in real time through the KENT Smart Home App.

Dashboard Features

- State of Charge (SOC)
- Battery Voltage
- Charging Current
- Discharging Current
- Battery Temperature
- Battery Health Status
- Protection Alerts
- Connection Status

A green 'Connected' indicator confirms successful communication between the battery and the mobile application.





TECHNICAL SPECIFICATIONS

Particulars	Model		
	A6-1280	A6-2560	A6-3840
Nominal Voltage	12.8 Volt	25.6 Volt	25.6 Volt
Rated Capacity	100AH	100AH	150AH
Rated Energy	1280WH	2560WH	3840WH
Max Charge Voltage	14.4	28.8	28.8
Discharge Cut-off Voltage	10.2	20.4	20.4

* Specifications are subject to change without prior notice as part of KENT's continuous improvement program.

8. DO'S & DON'TS

DO'S

- Follow all installation instructions
- Use appropriate cable sizes and connectors
- Ensure proper DC earthing
- Inspect terminal tightness every six months
- Register your warranty after purchase
- Maintain recommended operating conditions

DON'TS

- Use for vehicle starting, cranking or EV applications
- Install near heat sources or direct sunlight
- Use incompatible chargers or inverters
- Modify or bypass the Battery Management System
- Remove, alter or tamper with serial number labels

9. PERFORMANCE NOTE

Battery performance, backup duration, cycle life and energy output may vary depending on:

- Load conditions
- Ambient temperature
- Charging practices
- Installation quality
- Product age

Gradual capacity reduction over time is a normal characteristic of lithium battery technology and does not indicate a manufacturing defect.

Performance values are based on standard testing conditions at 25°C

10. SUSTAINABILITY NOTICE

At KENT New Energy, we are committed to promoting environmentally responsible energy solutions.

LiFePO₄ batteries contain valuable materials that can be recovered and recycled at the end of their service life. Proper disposal helps conserve natural resources, reduce environmental impact and support a sustainable future.

Please follow these guidelines:

- Do not dispose of batteries with household or municipal waste
- Do not incinerate, puncture, crush or dismantle the battery
- Return end-of-life batteries to authorized collection, recycling or disposal facilities
- Follow all applicable local regulations for battery transportation and recycling
- Keep batteries away from children and unauthorized personnel during storage and disposal

Environmental Commitment

KENT LiFePO₄ Batteries are designed for long service life, improved energy efficiency and reduced environmental impact compared to conventional battery technologies.

Together, we can contribute to a cleaner and more sustainable future through responsible battery usage, recycling and disposal.



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