



500KWh

Mobile Storage and Charging Vehicle User Manual

Content

1. Safety Warnings.....	1
2. Product Overview.....	2
3. Quick Start Guide.....	3
4. Detailed Operating Procedures.....	3
5. Transportation Precautions.....	4
6. Storage Precautions.....	5
7. Routine Maintenance Checklist.....	5
8. Main Functions.....	6
9. Frequently Asked Questions (FAQ).....	7
10. Technical Specifications.....	10
After-Sales Service & Contact Information.....	10

1. Safety Warnings

Before operating this equipment, be sure to carefully read and understand all safety information. Negligence may result in serious personal injury, equipment damage, or property loss.



When using AC output, the equipment's grounding terminal **MUST** be reliably connected to earth via the provided grounding cable. This is a critical safety measure to prevent electric shock.



DO NOT use or store this equipment in flammable, explosive, humid, dusty environments (such as gas stations, chemical plants, bathrooms) or confined spaces.



Do not disassemble, modify, or repair this equipment unless you are a qualified professional. High-voltage components are present inside. Unauthorized opening will void the warranty and poses extremely high risks.



During use and charging, ensure the equipment's ventilation openings are unobstructed. Do not cover them with debris to prevent overheating.



Keep the equipment out of reach of children.



This device is not completely waterproof. Do not expose it to rain or any



Before use, check that power cords and plugs are intact to avoid short circuit risks. Do not pull the cable to unplug a device. Ensure the total power of all connected devices does not exceed the rated output power of this equipment. Overloading is strictly prohibited.



Use only the original or certified charger for charging, and avoid leaving the equipment charging unattended for extended periods.

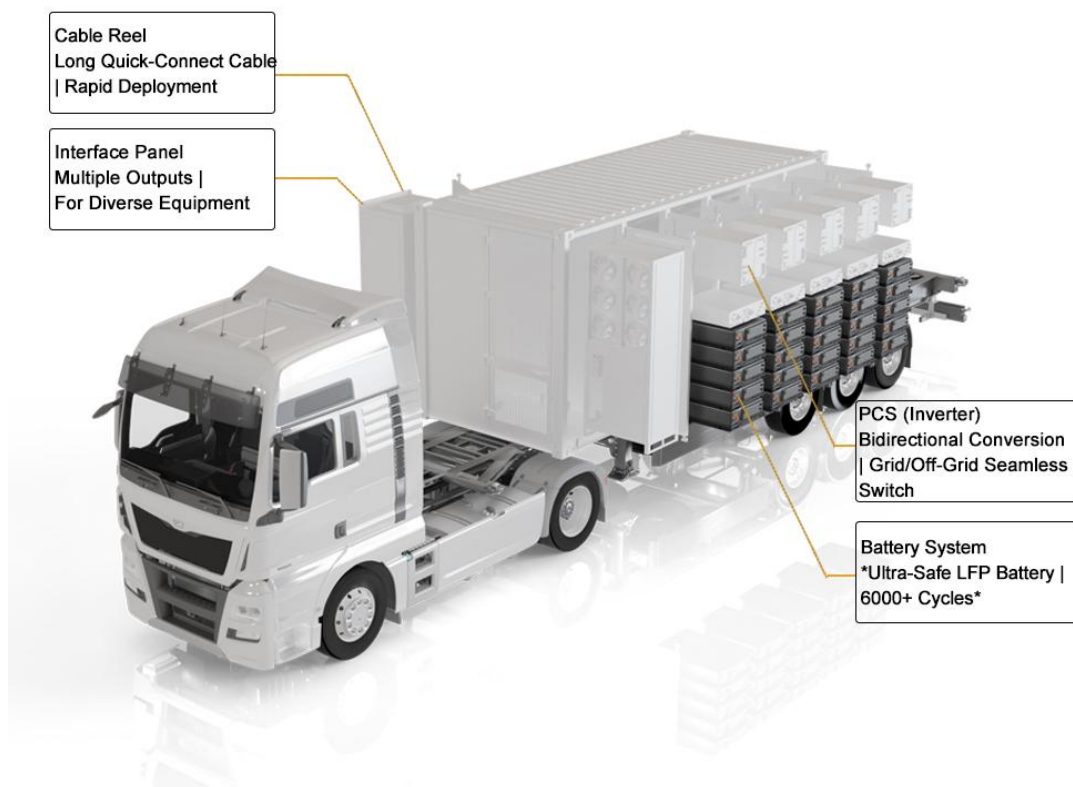


严禁碰撞

Place the equipment on a dry, clean, and stable surface. Avoid dropping it or subjecting it to severe impact.

2. Product Overview

Product Core Display



3. Quick Start Guide

Get powered in just four simple steps:

Step 1: Park and Secure

Place the equipment on a flat, stable, and dry surface. If the equipment has wheels, ensure the wheel brakes/casters are locked.

Step 2: Connect the Ground Wire

Securely connect one end of the provided grounding cable to the equipment's grounding terminal. Connect the other end to a grounding rod (inserted into moist earth) or a reliable local grounding point (such as a building's grounding stake).

Step 3: Connect Loads

Ensure your electrical devices (loads) are turned off. Firmly insert their plugs into the corresponding output sockets on the equipment panel.

Step 4: Power On

Turn on the equipment's main power switch. After the system screen lights up, individually turn on the output circuit switches you need to use, via the touchscreen or physical buttons.

4. Detailed Operating Procedures

A. Charging Operations

This equipment supports multiple charging methods for flexible and convenient energy replenishment.

Grid Charging:

1. Ensure the equipment power is off.
2. Plug the input end of the standard power adapter into a mains power socket (AC 380V/45-65Hz).
3. Plug the output end of the adapter into the equipment's "AC Input" port.
4. Turn on the equipment power and the screen will display the charging status and current power level.

Solar Charging (Eco-Friendly):

1. Use the dedicated solar charging cable.
2. Connect one end of the cable to the output of the solar panel(s), and the other end to the equipment's "DC Input" port.
3. Place the solar panel(s) in a location with ample sunlight.
4. Turn on the equipment power and the screen will display the solar charging status.

Generator Charging:

1. Use a generator with a pure output waveform and stable voltage.
2. Connect the generator's output to the equipment's "AC Input" port in the same manner as grid charging.

B. Screen Parameter Settings and Output Port Management

Parameter Settings: Use the function keys on the equipment panel to set parameters on the screen.

Set Power Protection: Enter system settings. Set "Low Battery Alarm" to 20%-30% and "Auto Shutdown" to 15%-20%. This is the most important setting for protecting battery lifespan.

Confirm output parameters: On the discharge interface, check whether the output voltage (such as AC 380V) and frequency match your device requirements.

AC Output Switch: Individually turn the AC output on or off.

Power Saving Mode: Set the automatic shutdown time when no load is detected.

Screen brightness/sound: Adjust the display and prompt sounds.

Output Port Management: You can use multiple output ports simultaneously to power different devices. Please note that the total output power of all ports must not exceed the equipment's rated maximum power, otherwise overload protection will be triggered.

5. Transportation Precautions

The core of transportation is dynamic safety, focusing on preventing physical impact and environmental loss of control.

A. Pre-Transport Preparation:

Secure Fixation: Use professional lashing straps and wheel chocks to firmly secure the equipment to the transport vehicle. This is the primary measure to prevent tipping or sliding.

Power Level Management: The transport State of Charge (SOC) should be maintained between 20% - 80%. The battery's chemical state is most stable and safest in this range.

Avoid transporting at full charge or severely depleted states.

Status Confirmation: Ensure the main power is switched off, all loads are disconnected, and all port protective covers are tightly closed.

B. Requirements During Transport:

Smooth Driving: The driver should maintain moderate speed and smooth driving, avoiding sudden braking and sharp turns to minimize severe vibration to the battery and internal

components. Environmental Protection: Avoid prolonged exposure to direct sunlight and rain. It is strictly forbidden to transport the equipment alongside flammable or explosive materials.

6. Storage Precautions

The core of storage is static maintenance, aiming to create an ideal environment that slows aging.

A. Storage Location Selection:

Environmental Requirements: Prefer a dry, ventilated, and cool indoor warehouse. The ideal ambient temperature is 15°C - 25°C. Strictly avoid open-air, high-temperature, high-humidity locations, and places with corrosion risks.

Safety Conditions: The storage site must be away from fire sources and flammable materials, and equipped with effective fire-fighting equipment.

B. Pre-Storage Preparation:

Power Level Calibration: Before long-term storage, adjust the battery charge level to **40% - 60%**. This is the "hibernation" state most conducive to long-term battery health.

Cleaning and Maintenance: Perform a thorough cleaning of the equipment's exterior, heat dissipation vents, and ports, ensuring they are free of dust and debris.

C. Maintenance During Storage:

Regular Inspection: It is recommended to check the storage environment, equipment exterior, and power status monthly.

Critical Recharging: If the power level is found to be below 20%, it must be recharged immediately to 40%-60%. It is strictly forbidden to leave the equipment in a deeply discharged state for extended periods, as this will cause irreversible damage to the battery.

Record Management: Keep a record of each inspection for easy status tracking.

7. Routine Maintenance Checklist

A. Appearance and Environmental Inspection

1. Vehicle condition: Walk around the vehicle and check if there are any obvious bumps, deformation or damage.

2. Parking environment: Make sure the vehicle is parked in a dry, ventilated, and cool place. Keep away from water, fire, and flammable and explosive items.
3. Cleanliness: Observe the surface of the vehicle body, especially around the radiator grille and various interfaces, and check whether there is excessive dust, dirt or debris accumulation.

B. Power Level and System Status Check

4. State of Charge (SOC) Display: Check the control screen or power gauge to confirm the remaining power. For non-emergency standby use, it is recommended to maintain daily SOC between 50%-90%.
5. System Alarms: Confirm that the Battery Management System (BMS) display shows no fault codes or alarm messages. Normal status should display "Running" or "Standby", etc.
6. Indicator Lights: Observe the status of indicators (e.g., Power, Run, Fault) to ensure they are normal (e.g., Power light steady on, Fault light off).

C. Port and Cable Check (Critical Step)

7. Interface cleanliness and integrity: Open the protective covers of the input (charging) and output (discharging) interfaces and check whether the inside is clean and dry, and there are no metal burn marks, foreign objects or loose parts.
8. Protective Covers: After inspection, ensure all port protective covers are tightly closed and effectively sealed.
9. Charging/discharging cables: Check whether the insulating outer sheath of the cables carried with the vehicle is damaged, cracked or aged. The plug shows no signs of deformation or overheating.

D. Cooling System Inspection

10. Ventilation: Shine a flashlight through the cooling fan's air inlet and outlet to confirm that there are no blockages such as catkins, dust, or other debris.
11. Operating Sound: During device startup or operation, listen to the cooling fan's operating sound to ensure it is smooth and even, with no unusual friction or noise.

8. Main Functions

a. Emergency Charging Service - On-Call "Rescue Pioneers"

Function Description: Core function. It can quickly arrive at the scene and provide emergency DC fast charging for electric vehicles stranded on the roadside due to depleted batteries, alleviating driver anxiety.

Application Scenarios: Roadside rescue, disabled vehicles on highways.

b. Peak-Time Recharging Service - The "Mobile Force" of Charging Stations

Function Description: During holidays or peak charging times, this service can be flexibly deployed to service areas, scenic spots, and other areas with heavy queues for fixed charging stations, quickly establishing temporary charging points and effectively diverting traffic.

Application Scenarios: Recharging at highway service areas and popular shopping districts during holidays.

c. Event Power Guarantee Service - A Green and Quiet "Mobile Energy Station"

Function Description: Provides temporary, stable, and zero-emission charging and power supply for large-scale outdoor events (such as auto shows, marathons, and music festivals), eliminating the need for complex grid deployment.

Application Scenarios: Large-scale outdoor events and temporary exhibitions.

d. Grid Collaboration Service - A Smart and Flexible "City Battery"

Function Description: Stores energy at night when electricity prices are low, and discharges it to the grid or specific facilities during daytime hours when prices are high, achieving "peak shaving and valley filling," reducing electricity costs or enabling participation in grid dispatch.

Application Scenarios: Peak-valley arbitrage in business parks and participation in virtual power plants.

e. Enterprise Empowerment Service - Fleet Management "Flexible Charging Stations"

Function Description: Provides flexible and fast charging solutions within the station for logistics, rental, and other companies with electric vehicle fleets, eliminating the need to invest in a large number of fixed charging stations.

Application Scenario: Charging for logistics parks and taxi fleets.

9. Frequently Asked Questions (FAQ)

Q: What should I do if the battery level is insufficient?

A: Stop discharging immediately and charge the equipment as soon as possible (using grid power, solar, etc.). Long-term deep discharge damages the battery.

Q: What should I do if the interfaces don't match?

A: Do NOT force the connection! Use adapters or converter cables that meet the interface standards. Ensure the power of the adapted device is within the energy storage power supply's rated power range.

Q: How to handle alarm messages (e.g., Overload, Over-temperature)?

A:

Overload/Overcurrent: Immediately disconnect some of the powered devices to reduce the total power consumption, then restart the equipment.

Over-temperature: Turn off all outputs, move the equipment to a cool, ventilated area to cool down. Resume use only after the temperature drops.

Fault Code: If the screen displays an unknown fault code that cannot be cleared, stop

using the equipment immediately and contact after-sales service.

Q: After inserting the charging gun into the customer's vehicle, the charging pile screen displays "Connection Failed" or "Communication Interrupted." What should I do?

A:

1. Re-plug the Gun Cable: Ensure the charging gun is inserted fully into the vehicle's port and locked securely.
2. Check Vehicle Readiness: Confirm the customer's vehicle is correctly prepared for charging (e.g., charging port unlocked, charging initiation confirmed on the vehicle's screen).
3. Restart the System: Completely power off the mobile charging vehicle's charging system, wait for 1 minute, then restart and try again.
4. Try an Adapter: If using an adapter, check if it makes good contact, or try a replacement.
5. Escalate: If multiple attempts fail, record the fault phenomenon and customer vehicle model, and report it to technical support.

Q: During charging, the system stops suddenly and displays an "Over-temperature Alarm." What should I do?

A:

1. Stop Charging Immediately: The system usually stops automatically; otherwise, manually confirm charging has stopped.
2. Check Cooling: Immediately check if the cooling fans or liquid cooling system for the storage vehicle's battery compartment are operating normally. Check if the air intake/exhaust vents are blocked by debris.
3. Move to a Shaded Area: If the ambient temperature is too high, move the vehicle to a shaded, ventilated area.
4. Wait for Cooling: Allow the system to cool down naturally. Consider resuming use only after the temperature returns to the normal range.
5. Record Information: Record information such as ambient temperature and battery temperature when the alarm occurred.

Q: During charging, the system alarms with "Insulation Fault." What should I do?

A:

1. Emergency Stop Immediately! This is a high-voltage system alarm. Continuing operation is strictly prohibited.
2. Ensure Safety: Set up a safety warning zone. Keep unauthorized personnel away.
3. Check External Cables: Check the charging gun head and cable for obvious damage, water stains, or contamination.
4. Do Not Attempt Self-Repair: Insulation faults involve internal high-voltage system issues. Operators are strictly forbidden from disassembling or troubleshooting themselves.
5. Report Immediately: Cut off the equipment's main power supply. Contact technical support or the after-sales service team immediately and wait for professional handling.

Q: What should I do if the charging gun head accidentally falls to the ground or is run over by a vehicle?

A:

1. Stop Using It Immediately! Even if it looks intact, internal damage may have occurred.
2. Visual Inspection: Check the gun head shell for cracks, and the internal pins for bending, deformation, or contamination.
3. Mark and Isolate: Mark this charging gun as "Faulty - Pending Inspection" and store it separately from other normal equipment.
4. Use Backup Solution: If the vehicle has dual guns, use the other intact charging gun.
5. Report for Replacement: Report the situation immediately for professional inspection or replacement. Using a damaged charging gun is strictly prohibited.

Q: The touchscreen is unresponsive or black, but the equipment is still running. What should I do?

A:

1. Try a Soft Reboot: Locate the equipment's "Emergency Stop" button. Press it (this will cut off output), wait 30 seconds, then turn it clockwise to reset. Then try restarting the system.
2. Physical Power Cycle: If the soft reboot is ineffective, find the equipment's main power switch or the circuit breaker in the control cabinet. Cut the power completely, wait 2 minutes, then restore power.
3. Emergency Stop: If charging needs to be stopped immediately, prioritize using the "Emergency Stop" button.
4. Contact Support: If the problem persists after reboot, contact technical support and describe the touchscreen failure.

Q: During operation, the fire extinguisher pressure gauge needle is in the red zone or shows an anomaly. What should I do?

A:

1. Replace Immediately: Abnormal pressure indicates the fire extinguisher may be ineffective. Stop operations immediately and replace the faulty extinguisher with a spare, qualified one.
2. Mark and Isolate: Store the ineffective extinguisher separately and mark it clearly as "Failed."
3. Report for Replenishment: Report the situation promptly to request a new fire extinguisher, ensuring safety equipment is always complete and effective.

10. Technical Specifications (500kWh)

Item	Parameter
Container Dimension	3050(L)×2440(W)×2590(H)mm
Battery Capacity	500KWh
Weight	3750kg
Operating Temperature Range	-25~50°C
Storage Temperature Range	-25~55°C
Operating Humidity Range	0-95%
Protection Rating	IP54
Suitable Altitude	>2000m (Derated use above 2000 meters)
Safety Protections	Leakage, Short Circuit, Overload, Overcurrent, Over-temperature, Phase Loss, etc.
Power Input Parameters	
AC Input Voltage	380VAC 250kVA
Input Frequency	45-65Hz
Power Factor	>0.99
Total Harmonic Current	< 5% (Rated input)
DC Input Voltage	200-1000V
DC Input Current	320A(0.5C Charging)
Power Output Options (Customizable)	
Option 1: AC380V 250kVA (sinusoidal output)	Can be used as high-power mobile AC power source
Option2 :DC Fast Charge Output (Supports V2V)	Support charging of electric heavy trucks and mining trucks

After-Sales Service & Contact Information

Official Website Email: Info@renepoly.com

Official Website: <https://renepoly.com/>

After-Sales Service Policy:

Warranty Start Date: Calculated from the product's manufacturing date, or from the purchase date based on a valid purchase receipt.

Response Time: Responds within 4 working hours after receiving a user service request, provides a solution or repair arrangement within 24 hours.

Contact Us:

Company Address: U3 Building, Liandong Knowledge Valley, Huangpu District, Guangzhou City, Guangdong Province, China

Service Hotline: +86 (20) 3180 0796

Disclaimer: Our company reserves the right to make updates and improvements to the product and manual content without prior notice. Please refer to the latest version of the manual and the actual product specifications