SORYQEX Battery Storage Co., Ltd.

50kWh Rack Battery System

Installation Manual

Capacity: 51.2kWh / Voltage: 512V / Commercial Solar Storage / Light Industrial Backup / High-Voltage Rack System

Product path: /stackable-battery/
Install type: Stackable | Voltage class: High Voltage
Source hub: /installation-manuals/

1. Overview

Stackable Battery systems for solar storage, telecom backup and expandable energy storage. Compare rack modules, capacity and inverter compatibility.

Qualified personnel only. Follow local electrical codes. Confirm model, voltage, communication, breaker, cable size, and clearance for THIS exact product before installation.

2. Model Snapshot

Item	Value
Model	50kWh Rack Battery System
Installation format	Stackable
Voltage class	High Voltage
Product page	/stackable-battery/
Capacity / Power	Capacity: 51.2kWh
Voltage / Chemistry	Voltage: 512V
Use Case	Commercial Solar Storage
Install / Format	Light Industrial Backup
Note	High-Voltage Rack System
Voltage	51.2V
Capacity	5.12kWh

3. Before You Install

- Confirm the exact model name matches the packing label and datasheet
- Check installation space, wall/floor load capacity, and service clearance
- Confirm inverter / PCS compatibility (voltage, protocol, charge limits)
- Select breaker and cable size for this battery + inverter combination
- Check indoor/outdoor suitability and IP / enclosure rating for the site
- Prepare grounding, isolation, and emergency shutoff per local code

4. Installation Steps (General)

- Power down related AC/DC sources and verify zero energy where required
- Unpack and inspect for shipping damage; keep packing list for warranty
- Mount or place the unit per the stated format: Stackable
- Install protective earth / PE before energizing power circuits
- Connect DC / expansion / communication cables with correct polarity and torque
- Configure BMS / CAN / RS485 / WiFi settings to match the inverter protocol
- Power up in the sequence required by the host inverter / ESS controller
- Verify SOC, voltage, communication, and a low-load test before full operation

5. Wiring & Protection Checklist

- Do not size cables from a generic chart - use this model + inverter pair
- Keep DC polarity correct; reverse polarity can damage BMS / inverter
- Separate signal and power routing where required by the system design
- Use only approved connectors / expansion cables for parallel or host packs

- Never bypass BMS protection, fuses, or manufacturer interlocks

6. Notes From Product Page

- Stackable battery systems for solar storage, battery backup, telecom backup and energy storage projects that need cabinet installation, inverter connection and scalable expansion.
- Get Rack Battery Quote
- 5.12kWh Rack Mounted Battery
- 19-Inch Rack Battery Module
- 10kWh Rack Mounted Battery
- 15kWh Rack Mounted Battery
- 50kWh Rack Battery System
- High-Voltage Rack System
- 60kWh Rack Battery System
- Choose battery capacity by backup load, inverter power, cabinet space and future expansion needs.

7. Safety

- LiFePO4 systems still require electrical safety practice and fire-access clearance
- Do not open sealed packs, short terminals, crush, or expose to immersion
- Stop use if swelling, abnormal heat, odor, leakage, or persistent faults appear
- Follow transport and storage rules for lithium battery products

8. FAQ

Q: What is a rack mounted battery?

A: Rack battery modules install in a rack or cabinet for solar storage, backup power, telecom backup or energy storage systems.

Q: Is a rack mounted lithium battery suitable for home solar storage?

A: Yes. Rack battery systems work for home solar storage when the inverter supports the battery voltage and communication protocol.

Q: Can a rack mounted battery be used for UPS battery backup?

A: Yes, but the battery system must match the UPS or inverter voltage, power rating and communication requirements. Rack mounted UPS battery backup should be checked before ordering.

Q: Is a 48V rack mounted battery the same as a 51.2V rack battery?

A: Not always. Many LiFePO4 rack batteries use 51.2V nominal voltage and are often compared with 48V systems. Always check your inverter voltage range before purchase.

Q: Do I need a rack mounted battery charger?

A: Solar or energy storage systems usually charge through a compatible inverter or charge controller. A separate rack mounted battery charger is only needed when the system design requires one.

Q: Can rack mounted batteries be expanded?

A: Yes. Many rack systems can be expanded by adding more modules, but the inverter, cabinet space and communication settings must support the expansion.

Q: Can I order custom rack mounted battery systems?

A: Yes. Custom rack systems should be confirmed by capacity, voltage, rack size, communication protocol and project quantity.

Q: Is a 100Ah LiFePO4 rack mounted battery enough?

A: A 100Ah LiFePO4 rack mounted battery is suitable for smaller backup or solar storage systems. For longer backup time, choose a higher-capacity module or add more rack batteries.

9. Support

Download hub: /installation-manuals/
Compatibility check: /check-inverter-compatibility/
Quote / engineering: /get-a-quote/
Always confirm final breaker, cable, and protocol values on the latest datasheet for this model.