SORYQEX Battery Storage Co., Ltd.

50kWh Battery

Installation Manual

51.2kWh / 512V DC

Product path: /50kwh-battery/
Install type: — | Voltage class: High Voltage
Source hub: /installation-manuals/

1. Overview

50kWh Battery — 51.2kWh high-voltage LiFePO4 for commercial solar storage, backup power and small facility energy storage. SORYQEX HV.

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 Battery
Installation format	—
Voltage class	High Voltage
Product page	/50kwh-battery/
Capacity / Power	51.2kWh
Voltage / Chemistry	512V DC
Charge	0–55°C / Discharge: -20–55°C
Main risk	wrong inverter class.

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: —
- 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

- 51.2kWh high-voltage LiFePO4 battery for commercial solar storage, backup power, and small facility energy storage.
- External inverter / PCS
- Capacity confirmed with system design
- This is a high-voltage battery module, not a plug-in home battery; select the PCS, protection devices and wiring as one complete system.
- Operating Voltage Range
- This 50kWh LiFePO4 battery uses a 512V high-voltage rack platform. It is a SORYQEX battery module for inverter-based projects, not a complete PCS cabinet.
- The SORYQEX 50kWh HV Battery is a high-voltage 50kWh battery pack for commercial and light industrial energy storage.
- Indoor rack-mounted battery module
- 512V DC high-voltage battery
- External inverter or PCS required

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: How much does a 50kWh battery cost?

A: The final 50kWh battery price depends on inverter or PCS selection, shipping, battery quantity, installation scope, protection devices, and project wiring.

Q: What affects the 50kWh solar battery price?

A: The 50kWh solar battery price changes with inverter brand, PV design, communication setup, electrical cabinet requirements, and local installation conditions.

Q: How long does a 50kWh battery last?

A: How long does a 50kWh battery last depends on the real load list. Office loads and lighting use energy differently from HVAC, pumps, refrigeration, or workshop equipment.

Q: How long does it take to charge a 50kWh battery?

A: Charging time depends on inverter or PCS charging power, PV input design, grid charging limits, and battery current settings. It should be checked from the full system design.

Q: Is this a 50kWh lithium battery for home use?

A: It is a 50kWh lithium battery, but it is better suited to large residential, small commercial, and light industrial projects. Standard home inverter systems must be checked because this model uses a 512V high-voltage battery platform.

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.