KT-5U 51.2V 200Ah Rack Mount LiFePO4 Battery | 10.24kWh for Telecom UPS Solar Storage

Our Product Introduction

Basic Information

- Place of Origin: Dongguan, Guangdong, China
- Brand Name: TINKO
- Certification: CE/ROHS/MSDS/UN38.3
- Model Number: KT-5U
- Minimum Order Quantity: 1 Piece
- Price: Negotiable
- Packaging Details: Standard export carton, 1 piece per carton.
- Delivery Time: 10-15 work days
- Payment Terms: L/C, T/T
- Supply Ability: 100pcs/day



Product Specification

- Battery Type: LiFePO4 (Lithium Iron Phosphate)
- Nominal Voltage: 51.2V
- Nominal Capacity: 200Ah
- Energy: 10.24 KWh
- Cycle Life: ≥6000 Cycles @ 80% DOD
- Design Life: 10 Years
- Installation: 19" Standard Rack-mounted, 5U
- Communication Port: RS485, RS232, CAN
- Max Charge Current: 200A
- Max Discharge Current: 200A
- Dimensions: 482 × 600 × 223 Mm
- Weight: Approx. 75 Kg
- Operating Temperature: Charge: 0 ~55 ; Discharge: -20 ~60
- Safety Certifications: CE/ROHS/MSDS/UN38.3
- Original: Dongguan, Guangdong, China

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Product Description

Product Overview

The KT-5U is a high-capacity 5U rack-mounted lithium iron phosphate (LiFePO4) energy storage battery pack manufactured by TINKO, built with premium grade-A LiFePO4 cells and an integrated intelligent BMS. With a rated voltage of 51.2V and rated capacity of 200Ah, it delivers 10.24kWh of reliable energy storage.

Designed for 19-inch standard cabinet installation, the KT-5U is widely used in high-power telecom base stations, large UPS systems, commercial solar energy storage and industrial power supply scenarios. Equipped with RS232, RS485 and CAN communication interfaces, it supports real-time status monitoring and parallel capacity expansion. Featuring high operational reliability, wide temperature adaptability and stable long-cycle performance, it is an ideal high-capacity drop-in replacement for traditional lead-acid battery banks.

Key Features

- **Standard 5U Rack Design:** Fully compatible with 19-inch standard server cabinets, space-saving and easy for integrated deployment, ideal for centralized installation in equipment rooms.
- **10.24kWh Large Capacity:** 200Ah high capacity delivers extended backup duration for high-power loads, perfectly meeting the power demand of large communication stations and industrial systems.
- **Premium Grade-A LiFePO4 Cells:** Adopts high-quality lithium iron phosphate cells, with much longer service life and higher safety compared with traditional lead-acid batteries.
- **Intelligent BMS with Full Protection:** Built-in battery management system with voltage/current/temperature monitoring, high-accuracy SOC calculation, multi-level protection and fault alarm, ensuring safe and reliable operation.
- **Flexible Parallel Expansion:** Supports multi-unit parallel connection via communication ports, allowing flexible capacity upgrade according to actual power demand.
- **Wide Temperature Adaptability:** Operates stably in -20 ~ 60 discharge environment, suitable for various industrial and outdoor communication scenarios.
- **Multiple Communication Protocols:** Built-in RS232, RS485 and CAN interfaces, compatible with mainstream inverters, monitoring hosts and energy management systems.
- **Long Service Life:** ≥6000 deep cycles at 80% DOD under standard conditions, with a 10-year design service life, greatly reducing long-term operation costs.

Key Specifications

Item	Parameter
Model	KT-5U
Battery Type	LiFePO4 (Lithium Iron Phosphate)
Nominal Voltage	51.2V
Rated Capacity	200Ah
Rated Energy	10.24 kWh
Cell Configuration	16S1P
Design Life	10 years
Weight	Approx. 75 kg
Installation	19" standard rack-mounted, 5U

Battery Technical Parameters

No.	Item	General Parameter	Remark
1	Nominal Voltage	51.2V	Battery pack rated voltage
2	Rated Capacity	200Ah	Standard charge/discharge condition
3	Cycle Life	≥6000 cycles	@ 80% depth of discharge
4	Rated Stored Energy	10.24 kWh	--
5	Standard Charging	40A constant current charge to 56.4V, then CV 58.4V till cut-off current ≤0.05C	Single cell max voltage 3.65V
6	Charge Cut-off Voltage	58.4V (pack) / 3.65V (single cell)	--
7	Standard Discharging	40A constant current discharge to 43.2V	Single cell min voltage 2.7V
8	Discharge Cut-off Voltage	43.2V (pack) / 2.7V (single cell)	--
9	Max. Charge Current	200A	--
10	Max. Discharge Current	200A	--
11	Operating Temperature	Charge: 0 ~ 55 ; Discharge: -20 ~ 60	--
12	Storage Temperature	≤12 months: -10 ~ 35 ; ≤3 months: -10 ~ 45	30~60% SOC, humidity ≤85%RH
13	Dimension (W × T × H)	482 × 600 × 223 mm	Including plugins
14	Weight	Approx. 75 kg	Battery pack weight
15	Electrode Lead-out	Terminal	--
16	Power Display	LCD display screen + RUN/ALM/CAP LED indicator lights	--
17	Communication Port	RS232, RS485, CAN	--
18	Mounting Method	19-inch standard rack-mounted	5U height

BMS & Safety Protection

The built-in intelligent battery management system (BMS) provides complete functions as specified in the official datasheet:

- **Real-time monitoring:** Accurate detection of pack voltage, single cell voltage, charge/discharge current, battery surface temperature, MOS temperature and ambient temperature.
- **High-precision SOC calculation** with error less than 5%, plus an energy-transfer type cell voltage equalization function.
- **Comprehensive protection:** Over-voltage, under-voltage, charge/discharge over-current, short circuit, over-temperature, under-temperature and reverse polarity protection.
- **Fast fault response:** Alarm and circuit cut-off when abnormal parameters are detected, with automatic recovery after parameters return to the normal range.
- **Sleep mode and operation data storage** function, supporting history reading.
- **Cell open-wire detection and alarm** function.

Application Scenarios

- High-power telecom base stations and communication equipment backup power
- On-grid / off-grid commercial solar energy storage systems
- Large UPS and data center / server room backup power
- Industrial equipment power supply and emergency backup
- Industrial and commercial energy storage systems
- Off-grid power supply for remote sites

Frequently Asked Questions

> **Q: Is this battery compatible with standard server cabinets?**
>
> A: Yes, the KT-5U adopts a standard 5U rack design that is fully compatible with 19-inch standard server cabinets, making installation and

integrated deployment very convenient.

Q: Can I expand the capacity by connecting multiple units?

A: Yes, this battery pack supports parallel expansion via the built-in communication ports. You can connect multiple KT-5U units to build a larger energy storage system as your power demand grows.

Q: What communication protocols does it support?

A: It is equipped with RS232, RS485 and CAN communication interfaces, which can be connected to inverters, upper computers and energy monitoring systems to display real-time battery status and operation data.

Q: Does it require professional installation?

A: For safety and optimal performance, we strongly recommend that electrical connection and system debugging be completed by a certified electrician. Detailed installation instructions are provided with the product, and the unit fits standard 19-inch racks directly.

Q: What is the warranty policy?

A: We provide a 1-year official product warranty from the date of delivery, covering replacement for quality defects under normal use. Built with premium grade-A LiFePO4 cells, the product has a 10-year design service life under standard operating conditions.

Certifications & Warranty

100% full inspection before delivery, with strict quality control throughout the production process.

Complies with international safety standards and holds CE, ROHS, MSDS and UN38.3 certifications.

Built with premium grade-A LiFePO4 cells for stable long-cycle performance.

Official Warranty: 1-year product warranty from the date of delivery, covering replacement for quality defects under normal use.

Design Service Life: 10 years under standard operating conditions.

Professional technical team provides pre-sales consultation and after-sales technical support.

OEM/ODM customization is available for bulk wholesale orders.

Product Display

Multi-angle factory real-shot images of the KT-5U rack-mounted LiFePO4 battery, showing the front panel, power terminal blocks, communication ports, rack mounting ears and built-in metal handles in detail.


TINKO
MENU
ENTER
DOWN
ESC
RST ADS Dry Comacts RS485 CAN RS232 RS485 RS485
ON/OFF
RUN ALM SOC


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MENU
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