15.36kWh Floor-Standing LiFePO4 Battery | 48V 300Ah Home Solar Energy Storage | KTLS-51300

Our Product Introduction

Basic Information

- Place of Origin: Dongguan, Guangdong, China
- Brand Name: TINKO
- Certification: CE/ROHS/MSDS/UN38.3
- Model Number: KTLS-51300
- Minimum Order Quantity: 1 Piece
- Price: Negotiable
- Packaging Details: Standard export double-layer corrugated carton, 1 piece per carton.
- Delivery Time: 25-30 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: 300Ah
- Energy: 15.36 KWh
- Cycle Life: ≥6000 Cycles @ 80% DOD
- Design Life: 10-20 Years
- Installation: Floor-standing With Casters
- Communication Port: RS232, RS485, CAN
- Max Charge Current: 300A Per Unit (1C)
- Max Discharge Current: 300A Per Unit (1C)
- Dimensions: 620 × 260 × 840 Mm
- Weight: Approx. 122 Kg
- Operating Temperature: Charge: 0 ~55 ; Discharge: -30 ~60
- Safety Certifications: CE/ROHS/MSDS/UN38.3
- Original: Dongguan, Guangdong, China



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Product Description

Product Overview

The KTLS-51300 is a high-capacity floor-standing residential and light commercial energy storage battery manufactured by TINKO. Built with grade-A LiFePO4 cells in a 16S1P configuration and an integrated intelligent BMS, it delivers 15.36kWh of stored energy at a 51.2V / 300Ah rated specification — a true single-unit large-capacity solution that eliminates the need for multi-module stacking.

Equipped with RS485, CAN and RS232 communication interfaces, the KTLS-51300 is compatible with most mainstream 48V hybrid and off-grid inverters. Its vertical floor-standing design with built-in casters requires no wall drilling, making it ideal for high-consumption households, small businesses and off-grid power systems.

Key Features

- **Single-Unit Large Capacity:** 15.36kWh of energy in one unit — no multi-module stacking or extra wiring, ideal for households with high electricity consumption.
- **Long-Life LiFePO4 Chemistry:** Grade-A lithium iron phosphate cells with excellent thermal stability, up to 6000 cycles and a 10–20 year design life for long-term reliable use.
- **Floor-Standing Mobile Design:** Vertical cabinet structure with bottom casters for easy movement and placement; no wall drilling required, flexible installation in garages, utility rooms and basements.
- **Full Intelligent BMS Protection:** Built-in BMS with over-charge, over-discharge, over-current, short-circuit and over-temperature protection, plus automatic cell balancing.
- **Multi-Protocol Compatibility:** RS485, CAN and RS232 communication ports support compatibility with over 20 mainstream inverter brands and real-time system monitoring.
- **Intuitive LCD Display:** Front-panel LCD screen shows battery voltage, current, SOC, temperature and operating status directly for easy daily operation.
- **Strict Quality Compliance:** Compliant with CE, RoHS, MSDS and UN38.3 international standards, with 100% full inspection before delivery.

Key Specifications

Battery System

Item	Parameter
Battery Type	LiFePO4 (Lithium Iron Phosphate)
Rated Voltage	51.2V
Rated Capacity	300Ah
Rated Energy	15.36kWh
Operating Voltage Range	40V – 58V
Standard Charge / Discharge Current	150A charge / 60A discharge (0.5C / 0.2C)
Max. Charge / Discharge Current	300A (1C)
Cycle Life	≥6000 cycles @ 0.2C, 80% capacity retention
Design Life	10–20 years
Installation	Floor-standing with casters, indoor use only
Net Weight	Approx. 122 kg
Dimensions	620 × 260 × 840 mm (W×D×H, including bracket)

Battery Technical Parameters

No.	Item	General Parameter	Remark
1	Battery Type	LiFePO4 (Lithium Iron Phosphate)	16S1P cell configuration
2	Rated Voltage	51.2V	Battery pack nominal voltage
3	Rated Capacity	300Ah	Standard test condition
4	Rated Energy	15.36kWh	—
5	Charge Cut-off Voltage	58V	—
6	Discharge Cut-off Voltage	40V	—
7	Standard Charge Current	150A (0.5C) CC / 58V CV	—
8	Max. Charge Current	300A (1C)	@ ambient temperature ≥10
9	Standard Discharge Current	60A (0.2C)	—
10	Max. Discharge Current	300A (1C)	@ ambient temperature ≥10
11	Cycle Life	≥6000 cycles @ 0.2C	Capacity retention ≥80%
12	Operating Temperature	Charge: 0 ~ 55 ; Discharge: -30 ~ 60	Official specification
13	Protection Functions	Over-voltage / Under-voltage / Over-current / Short circuit / Over-temperature / Cell balancing	Intelligent built-in BMS
14	Communication Ports	RS485 / CAN / RS232	Standard communication interfaces
15	Internal Impedance	≤40mΩ	Measured at 50% SOC, AC 1kHz
16	Product Dimension	620 × 260 × 840 mm	Including mounting bracket
17	Net Weight	Approx. 122 kg	—
18	Installation Method	Floor-standing with casters, indoor use only	No wall drilling required
19	Parallel Function	Supported	Consult technical team for detailed parallel solution
20	Storage Temperature	-10 ~ 35 (≤12 months); -10 ~ 45 (≤3 months)	Shipment state

Installation & System Connection

Floor-Standing Placement: Vertical cabinet design with bottom casters can be placed directly on a flat indoor floor, making it easy to move and reposition — no wall drilling or additional brackets required.

Inverter Connection: Compatible with most mainstream 48V hybrid and off-grid inverters via RS485 or CAN communication, supporting solar charging, grid charging and discharge scheduling.

Capacity Expansion: Supports parallel connection for larger capacity. Please consult our technical team for detailed parallel solutions and wiring requirements.

Installation Environment: Indoor use only. Install in a dry, well-ventilated area away from water sources, direct sunlight and flammable materials, and reserve heat dissipation space around the unit.

Application Scenarios

High-consumption residential rooftop solar self-consumption and peak load shifting

Home long-duration emergency backup power during grid outages

Time-of-use electricity price arbitrage for large households

Small retail stores, offices and workshops energy backup

- Remote area off-grid power systems matched with solar PV
- Light commercial energy storage and micro-grid systems

Frequently Asked Questions

Q: Can multiple KTLS-51300 batteries be connected in parallel?

A: Yes, parallel connection is supported for larger capacity. Please contact us for detailed parallel wiring and configuration guidance to ensure system safety and stability.

Q: What inverters is this battery compatible with?

A: It is compatible with most mainstream 48V hybrid inverters and off-grid inverters, supporting RS485 and CAN communication protocols. You can provide your inverter model for compatibility confirmation before ordering.

Q: Can it be installed outdoors?

A: No. This model is designed for indoor use only. It must be placed in a dry, ventilated indoor environment, avoiding direct rain, sunlight exposure and humid conditions.

Q: How long is the battery service life?

A: Under standard operating conditions, the cycle life can reach up to 6000 cycles, with a design service life of 10–20 years. Actual service life varies with usage environment and depth of charge-discharge.

Q: Does it have a display screen?

A: Yes, the front panel is equipped with an LCD display screen that shows real-time parameters such as battery voltage, current, remaining capacity (SOC) and operating status directly.

Certifications & Warranty

- 100% full inspection and aging test before delivery, with strict quality control throughout production
- Compliant with CE, RoHS, MSDS and UN38.3 international safety and transportation standards
- Built with premium grade-A LiFePO4 cells for stable performance and long service life
- Official warranty: 1-year product warranty from the date of delivery, covering quality defects under normal use. Extended warranty is available for bulk project orders.
- Professional technical team provides pre-sales consultation, installation guidance and after-sales technical support
- OEM/ODM customization is available for bulk wholesale orders

Product Display

Multi-angle product images of the KTLS-51300 floor-standing LiFePO4 energy storage battery, showing the front LCD display panel, side power terminals, communication interfaces and bottom mobile casters in detail.


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