TSBAT24-200L-WT

DATA SHEET

24V 200Ah Wide Temp LFP Battery

Features

- **Wide Temp Charging: -30C to +60C**
- **Wide Temp Discharge: -40C to +70C**
- **Longer Cycle Life: Up to 20X over Lead Acid**
- **Less Weight: ~40% less than Lead Acid**
- **Higher Power: 2x more Watt Hours than Lead Acid**
- **Stable and Safe Lithium Iron Phosphate (LiFePO4)**
- **On Board Intelligent Battery Management (BMS)**
- **Size is same as comparable Lead Acid Battery**
- **Drop in Replacement for Lead Acid Battery**
- **Integrated Carrying Handles**
- **Includes Bluetooth Communications**



TSBAT24-200L-WT
Wide Temp Lithium Battery

Applications

- **Remote Power Systems**
- **Off-Grid Systems**
- **Lighting**
- **Backup Power Systems**
- **Wheel Chairs, Golf Carts, Scooters**
- **RV and Boat**

Description

The TSBAT24-200L-WT LFP (LiFePO4) battery is a wide temperature, high reliability drop-in replacement for comparable Lead Acid batteries. It provides >4000 discharge cycles @ 80% discharge, about 20x what a Sealed Lead Acid battery typically provides. It also provides almost 2x usable energy storage over lead acid batteries with the same Ah rating.

Typically LiFePO4 batteries should not be charged below 0C and require DC heaters to be able to charge at low temperatures but with our wide temp Aluminum anode, graphene technology and semi solid-state cells, the battery is able to charge down to -30C without adversely affecting cycle life.

The integrated battery management system (BMS) handles all charging and discharging regulation so that the battery can be charged using the same solar or grid connect chargers used for Lead Acid batteries. Along with its standard mechanical size, the integrated BMS allows the battery to be a true drop-in replacement for a similar sized Lead Acid battery.

The LiFePO4 chemistry is very stable and minimizes the risk of explosion or combustion due to impact, overcharging or short circuit. The 40% less weight and the integrated carrying handles make the battery easier to transport and install at remote sites.

Up to 2 batteries can be connected in series or 4 in parallel to achieve a higher battery bank voltage (series) or more energy storage (parallel). There are two 6mm screw terminals for connecting battery cables. M6 bolts are included.

For long term storage it is recommended to charge to 60% charge every 6 months.

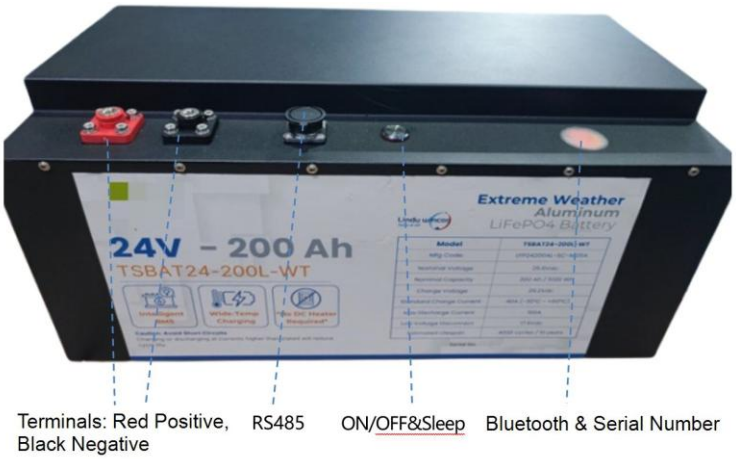
Specifications

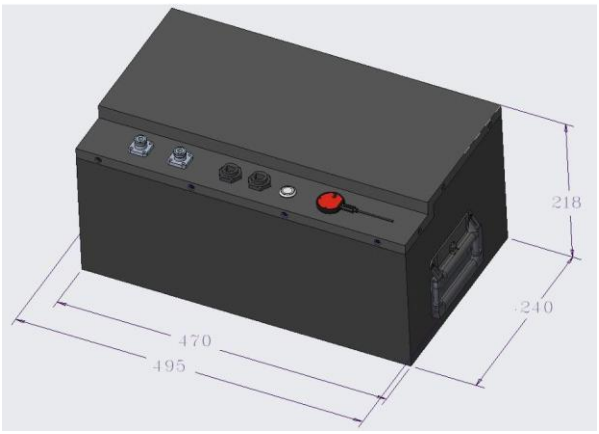
Nominal Voltage	25.6V
Nominal Capacity	200Ah 5120Wh
Internal Resistance	<20mΩ
Cycle Life	>4000 Cycles @ 80% DOD
Self Discharge	<3% per month
Charge Voltage	29.2 +/-0.2V
Charge Current (Max)	40A -30C to +5C 100A +5C to +60C
BMS Discharge Cutoff Voltage	17.6V 100% DOD
Typical Discharge Current	100A
Peak Discharge Current	120A for < 3 seconds
BMS Discharge Cutoff Voltage	17.6V
BMS Temperature Protection	100C
BMS Cell Balance	130mA
BMS Temperature Accuracy	3% (-30C to +90C)
BMS SOC Accuracy	5%
BMS Power Consumption	< 800uA (Sleep Mode) <50mA (Operating Mode)
Charge Temperature	-30C to +60C (-22F to 140F)
Discharge Temperature	-40C to +65C (-40F to 149F)
Suggested Storage Temperature	0C to +25C (32F to 77F)
Operating Humidity	5-90% (non condensing)
Weatherproofing	IP65
Case	Metal
Terminals	M6 Bolts (Included)
Dimensions (LxWxH)	19.5 x 9.4 x 8.6" (495 x 240 x 218mm)
Weight	99lb (45kg)
Parallel or Serial Connections	2 batteries maximum serial or 4 parallel
Safety Certifications (Lithium Cell)	UL1642 & IEC62619
Shipping Class	Class 9 – Hazardous Materials
Transport Certification	UN38.3
Warranty	3 Years

LiFePO4 Voltage versus Capacity		
VOLTAGE (12V)	VOLTAGE (24V)	CAPACITY
14.6V	29.2V	100% *(charging)*
13.6V	27.2V	100% *(resting)*
13.4V	26.8V	99%
13.32V	26.64V	90%
13.2V	26.4V	70%
13.12V	26.24V	40%
13V	26V	30%
12.92V	25.84V	20%
12.8V	25.6V	17%
12.52V	25.04V	14%
12V	24V	9%
10V	20V	0%

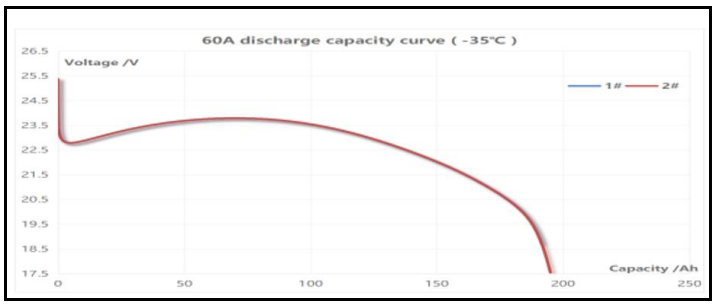
Notes

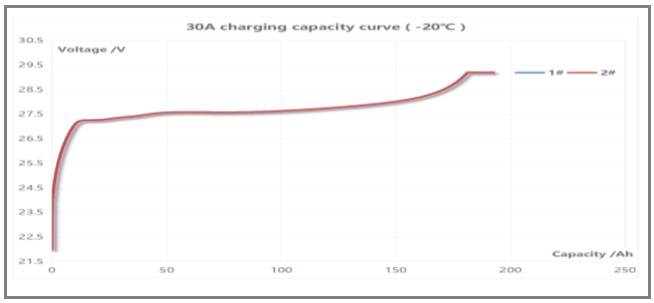
- ON/OFF/Sleep Button: Turn off battery when not in use
- Keep away from fire. Do not immerse in water. Do not short circuit.
- Use only designated charger setup to charge battery within specifications.



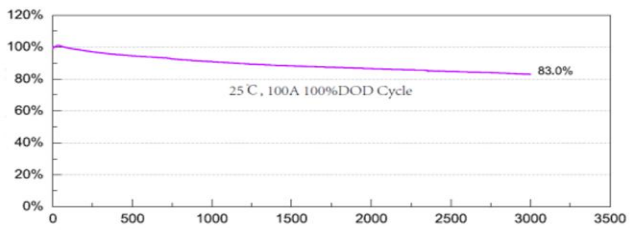


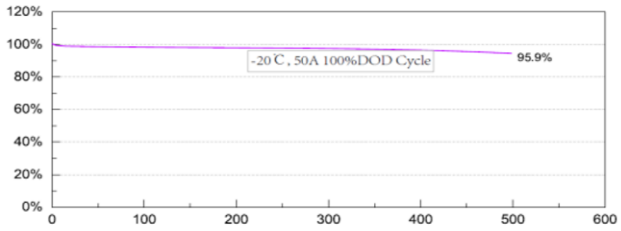
Discharge and Charge Capacity





100% DOD Cycle Performance





Get the Battery Bluetooth App

- Visit the Android or IOS App Store Search for “Smart BMS Pro”

iPhone

Android

System Ordering:

TSBAT24-200L-WT 24V 200Ah Wide Temperature LiFePO4 Lithium High Cycle Long Life Battery

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