

TECHNICAL DATA SHEET

“ThOR” Battery Unit

Product Series: “ThOR” Battery / *the lightning boxX.*

1. General Specifications

Parameter	Specification / Details
Model / Serial Number	TBX-4830015
Cell Chemistry	LiFePO4 (Lithium Iron Phosphate)
Nominal Voltage:	48 V / Max. 56.2 V
Nominal Capacity	314 AH
Energy Capacity (Rated)	15520 Wh / 15.5 kWh
Power Capacity (Peak)	15.5 kWh (High-surge discharge capability)
Technology Focus	Green Technology, Portable Model
Weight of Model	88.2 Kg +/- (no lead-acid battery product in this category)
Cycle Life	≥ 4,000 cycles (Estimated service life: 7 -9 years)

2. Mechanical & Physical Specifications

Parameter	Specification / Details
Enclosure Design	Heavy-duty custom metal casing with internal insulation
Lifting & Handling	Dual symmetrical side-mounted heavy-duty handles
Front Terminals	High-current binding posts (Red: Positive / +ve, Black: Negative / -ve)
Isolation / Switching	Rear-mounted heavy-duty rotary master isolator switch (Red)
Cooling System	Active thermal management via a rear-mounted ventilation exhaust fan (Optional)
Internal Architecture	Modular multi-cell LiFePO4 layout
Dimensions:	Approximately: (260 mm x 170 mm x 215mm)



3. Electrical & Operational Parameters

➤ Charge Specifications

- **Recommended Charge Current:** 20A to 50A
- **Maximum Charge Current:** 50A
- **Recommended Charge Voltage:** 24.2V to 28.0 V

➤ Discharge Specifications

- **Continuous Discharge Current:** 100A
- **Peak Discharge Current:** 200A (typically for 1–3 seconds)
- **Discharge Cut-off Voltage:** 46.2.V to 48 V
- **Self-Discharge Rate:** Less than 3% to 3.5% per month

➤ Environment & Safety

- **Operating Temperature (Charge):** 0° C to + 55° C
- **Operating Temperature (Discharge):** -20° C to + 60° C
- **Protection Level:** IP54
- **Built-in BMS:** Internal Battery Management System protects against overcharge, overdischarge, short circuits, and over/low temperatures.
- **High Voltage Warning:** Safety marked on the rear panel indicating high-current/high-voltage bridging capabilities.

4. Application Suitability

- Power Battery for USP , Inverter, System
- Can be used in e-rickshaw, a golf cart, and other e-mobility.

5. Standards & Certifications (Global & Indian Compliance)

- **CE Marking:** Certified conformity with European health, safety, and environmental protection standards.
- **BIS / Indian Standards:** Aligns with **IS 16046** and **IS 16270**.
- **Global Transport Standards:** Designed in accordance with **UN 38.3**.
- **Industrial Safety:** Compliant with the core principles of **IEC 62619**.



“ThOR” Battery Guarantee & Replacement Policy

Product: “ThOR” 48V 314AH | Manufacturer: SBB Energy Pvt. Ltd.

1. Core Guarantee:

- a) SBB Energy guarantees this product against manufacturing defects for **5 years** from the original purchase date. We guarantee that the battery will retain at least **70% of its rated capacity** for 5 years or 4,000 discharge cycles (whichever occurs first) under standard operating conditions.

2. Replacement Schedule:

- a) **Years 1 to 3 (Months 0–36):** Free repair or full replacement of the defective unit.
- b) **Years 4 to 5 (Months 37–60):** Free repair of internal components OR a pro-rata discount provided toward a new replacement unit.

3. Exclusions (Warranty is VOID if):

- a) **Physical Abuse:** Drops, housing damage, or unauthorized opening/tampering of the casing.
- b) **Electrical Misuse:** Use of incompatible chargers, continuous overcharging, short-circuiting, or reverse polarity.
- c) **Environmental Extremes:** Exposure to fire, water submersion, or operating outside temperature limits (-20°C to 60°C).
- d) **Acts of God:** Damage from lightning, floods, or natural disasters.

4. How to Claim: Contact support via www.thorenergybox.com within 15 days of noticing the defect. You must provide the **original tax invoice** and ensure the **Serial Number** on the unit is intact. Customers handle inbound shipping to the service center; SBB Energy covers return shipping for validated claims.

Manufacturing & Marketing by:

SBB Energy Pvt. Ltd
Savli Technology & Business Incubator (STBI), EPIP / CFC Building, First Floor,
Dept. of Science & Technology, Govt. of Gujarat,
GIDC SAVLI, Manjusar, Vadodara, Gujarat -391775

Emergency Contact: +91 2667 26600 ; email: sbbcto@thorenergybox.com

