TBB POWER

2026 *TBB POWER*
COMPANY PROFILE

www.tbbpower.com

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01

PART COMPANY



TBB POWER

Leading Independent Power Solution Provider for Mobile & Residential System

Established in 2007 in Xiamen, China, TBB POWER delivers innovative power solutions for mobile and residential applications, backed by over 19 years of industry experience.





From Generation to IoT: Complete Power Solutions

From energy generation, conversion, storage, power distribution to intelligent monitoring and IoT.



Mobile Market

Complete and innovative onboard power solutions for RV, LCV and HCV.



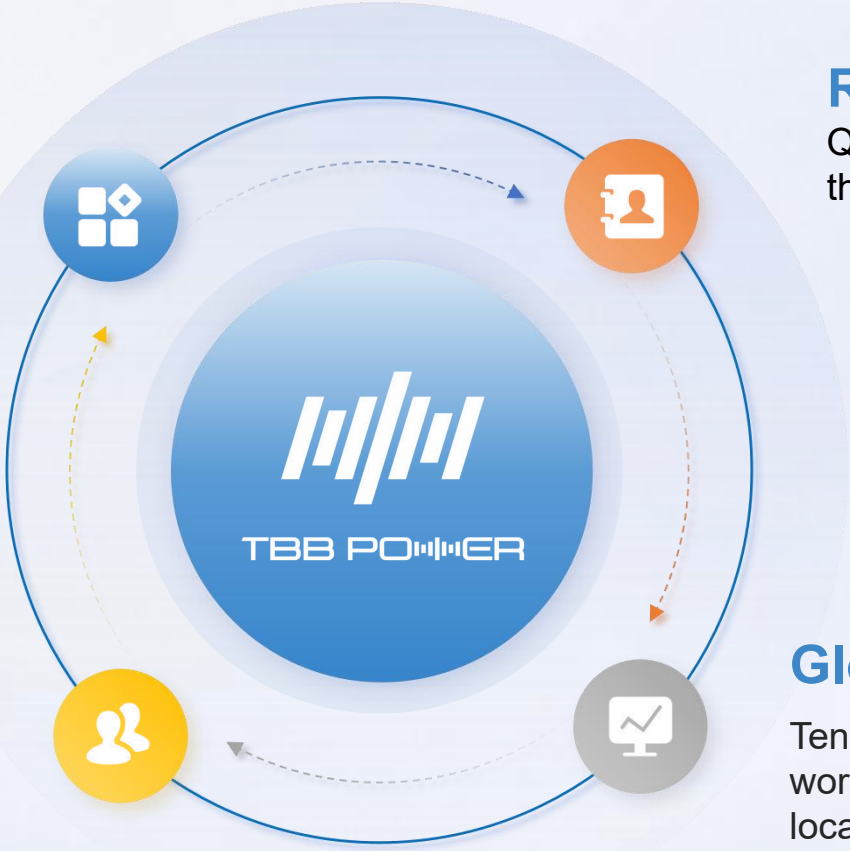
Residential Market

Professional and reliable solutions for Off-grid and Hybrid ESS.

From Solution to Service, Always Reliable

Solution Provider

With a complete and professional hardware and software team, we are committed to delivering tailored, innovative solutions for different markets.



Reliability Guaranteed

Quality and reliability are our key promise through rigorous design and production.

Engineering Service

Along with high-quality products, we work closely with our customers to ensure every system delivers the expected performance

Global player, Local Service

Tens of thousands of systems installed worldwide annually, backed by responsive local service through our global network.

Global Scale. R&D Depth.

19+
Years Experience

50+
Exporting Countries

NO.1
Independent power solution provider in China

580+
Employees

200+
Engineers

2
R&D Centers

200+
Patents & Copyrights

60,000+
On-board Systems Per Year

20,000+
Off-grid Systems Per Year



02

PART

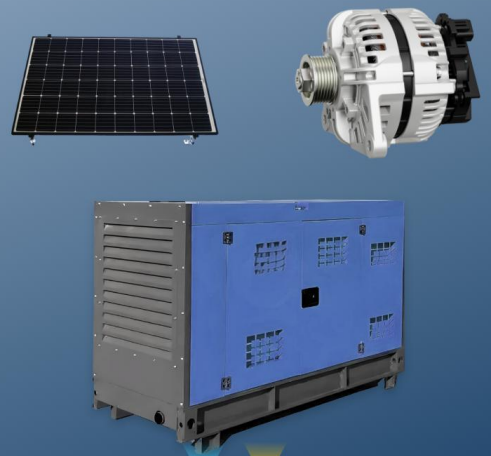
R&D



TBB POWER

Full-Stack R&D Across the Power Ecosystem

Energy Generation



Power Conversion





Digital Power Distribution



Energy Storage





Intelligent Monitoring



IOT



Power Generation

1

Advanced MPPT

500W–20kW PV input with wide voltage range of 100–900Vdc

2

Rhino S5 Dual Alternator

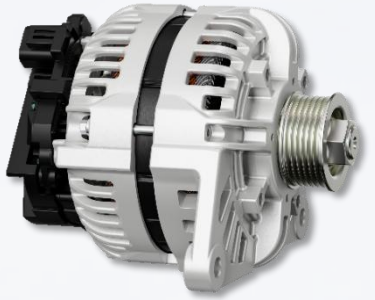
48Vdc dual-alternator charging solution

3

Intelligent Hybrid Generator Integration

Generator hybrid system with Power Assist





Power Conversion

Multiple Topologies

Designed to meet diverse application requirements

Bi-directional AC/DC

1.2kW to 20kW, 12-48Vdc, IP20 & IP65 protection

Bi-directional DC/DC

240W to 4kW, 12-48Vdc, IP20 & IP67 protection

DC-AC Inverters

Up to 700W@12V and 2kW@24V (single phase)

AC-DC Battery Chargers

Up to 120W@12Vdc and 480W@24Vdc



Energy Storage

Self-developed BMS

Advanced management strategies to maximize lithium battery performance

Application-specific Battery Packs

IP20, IP65, IP67, and IP69K protection ratings available

High-performance Sodium-ion Batteries

Superior safety, excellent low-temperature performance, high-rate charge/discharge





Digital Distribution

Flexible Modules

Enabling intelligent load control across diverse applications

Integrated Control

Via CAN, RS485, Bluetooth, CI-BUS, and RVC

Multiple Sensors

Temperature, water level, leveling, tire pressure and more for real-time monitoring





HMI

Wide Range of Displays

From 2.8” to 10” high-brightness displays

Application-specific Designs

For mobile and residential use, IP20 protection

Professional Software Support

For Linux & FreeRTOS platform







IOT

OTA Software Updates

Providing over-the-air (OTA) software updates for maintenance and enhanced functionality

Data & Reporting

Historical data securely stored in the database, enabling in-depth reports to improve management efficiency

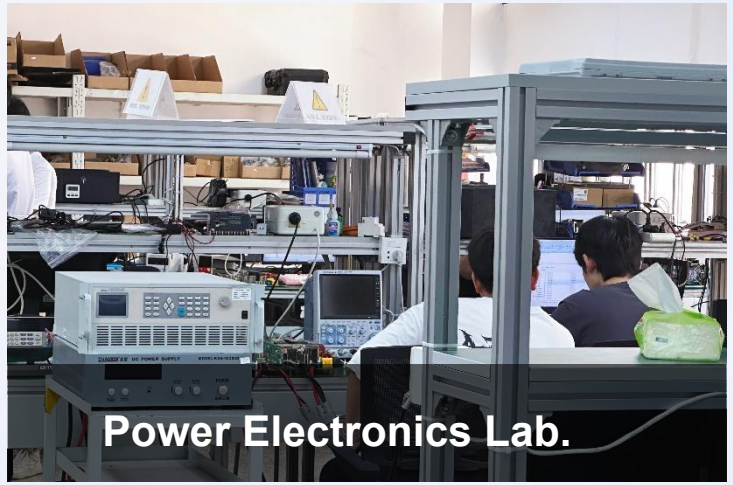


R&D Labs


BMS Lab.



Endurance Test Room


Power Electronics Lab.


PACK Lab.

03

PART

MANUFACTURING



Manufacturing Ability



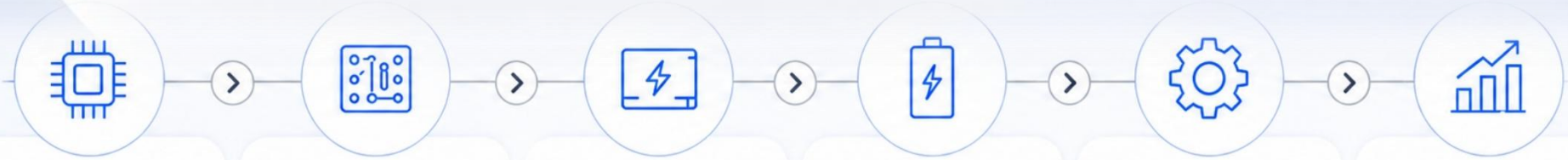
40,000m²

Manufacturing
Base Area



Manufacturing Capability

Full-process manufacturing capability with MES-driven efficiency and traceability.



SMT

4 Assembly Lines

4,000,000
Components / Day

PCBA

3 Assembly Lines

6,000
PCBs / Day

MODULE

5 Assembly Lines

2,000
Power Modules / Day

PACK

3 Assembly Lines

600–800
Battery Packs / Day

SYSTEM

6 Assembly Lines

300
Systems / Day

MES

Real-time Production Optimization

Efficiency & Traceability

40,000m²
Manufacturing Area

22+
Automated Production Lines

100%
Quality Control

MES
TBB-developed

01

SMT



SMT



Fully Automatic Printing Machine



SPI



Pick-and-Place Machine


Reflow Soldering Oven



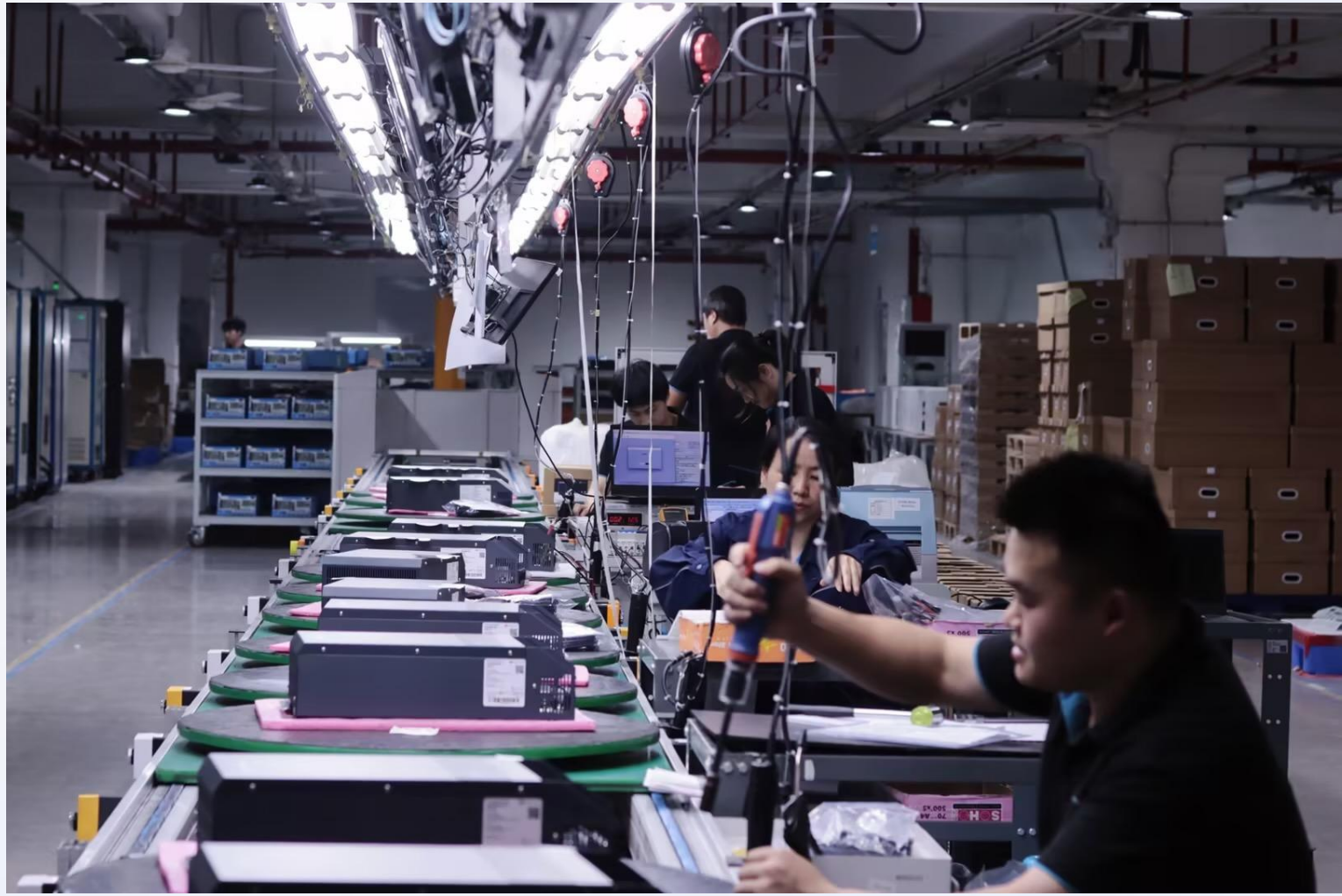
AOI



Microfocus X-Ray Inspection

02

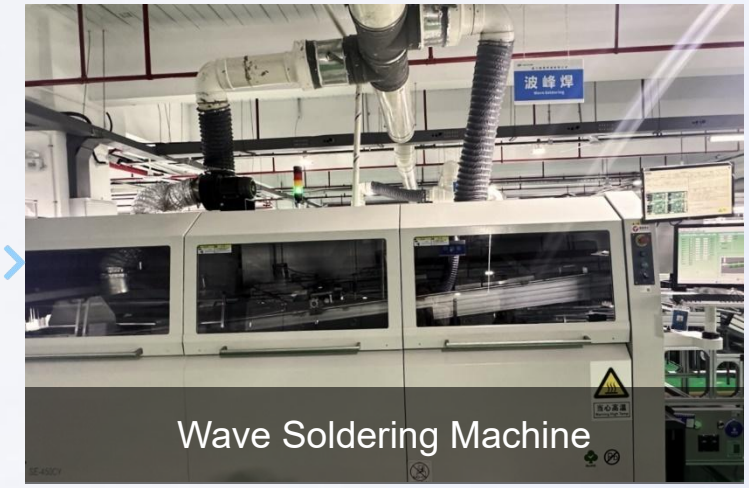
PCBA



PCBA



Odd-form Component Insertion Machine



Wave Soldering Machine



AOI


FCT Equipment



UV/Triple Defense Coating Machine



Automatic Dispensing Machine

03

Module Assembly



Module Assembly


Firmware uploading


ATE Equipment


Aging Test Equipment


Aging Test Data Collection & Display

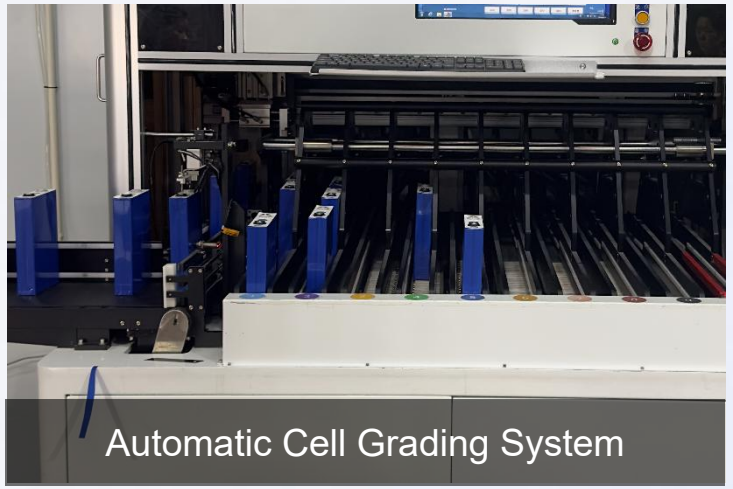
04

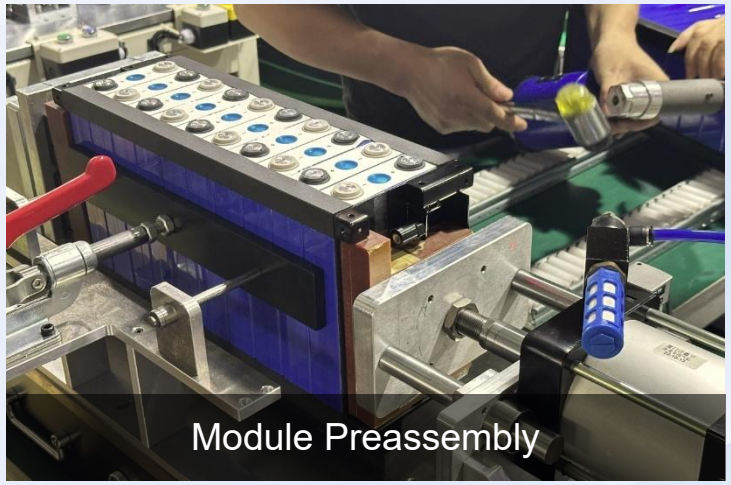
Pack Assembly

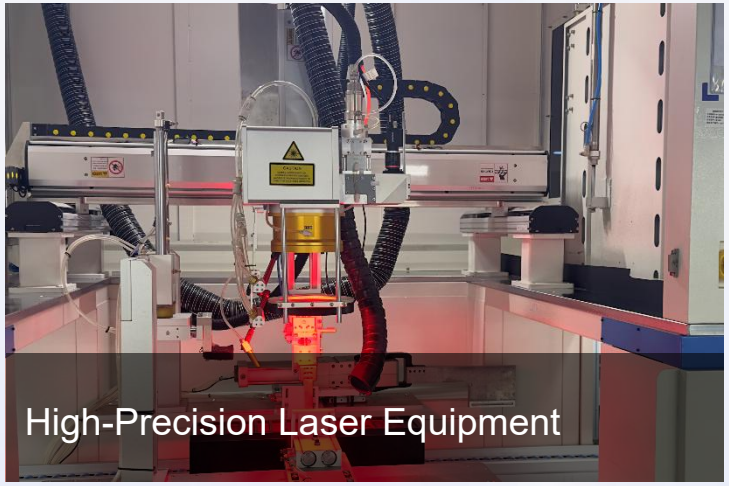


PACK Assembly


Capacity Grading Machine


Automatic Cell Grading System


Module Preassembly


High-Precision Laser Equipment


Communication / Airtightness / Insulation / Short Circuit Testing


Aging Test Machine

05

System Assembly



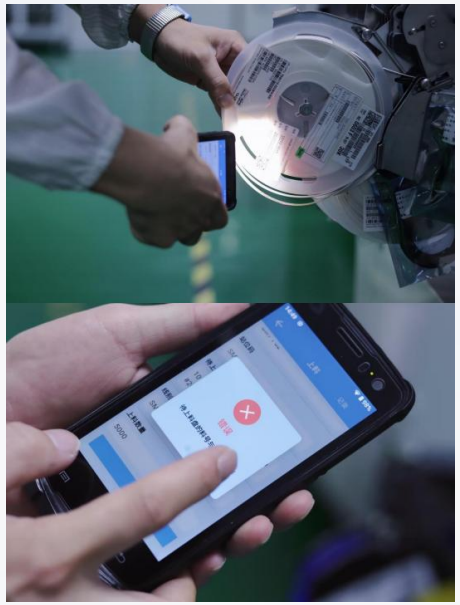


06 MES System

- The self-developed MES provide real-time visibility of production processes, optimize resource utilization, improve quality management, enhance inventory control and support informed decision-making during the production process.
- MES help to improve the efficiency, traceability and competitiveness of the production operations.

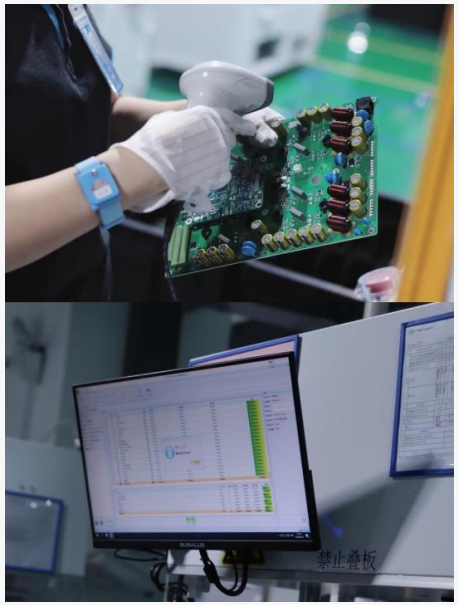
MES System

Digital Management with Barcodes



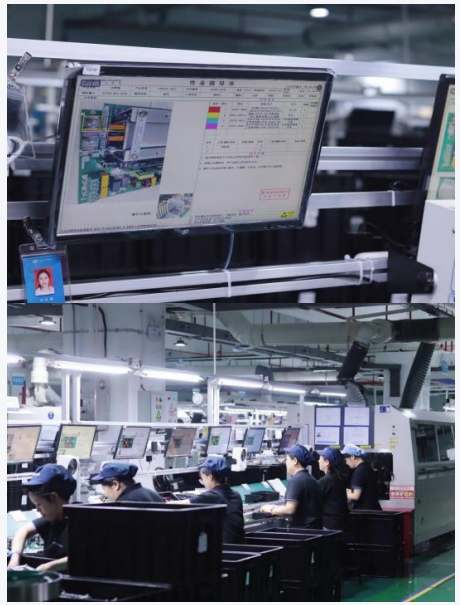
Barcode tracking for components, assembly, and real-time error alerts.

Connected Production Equipment



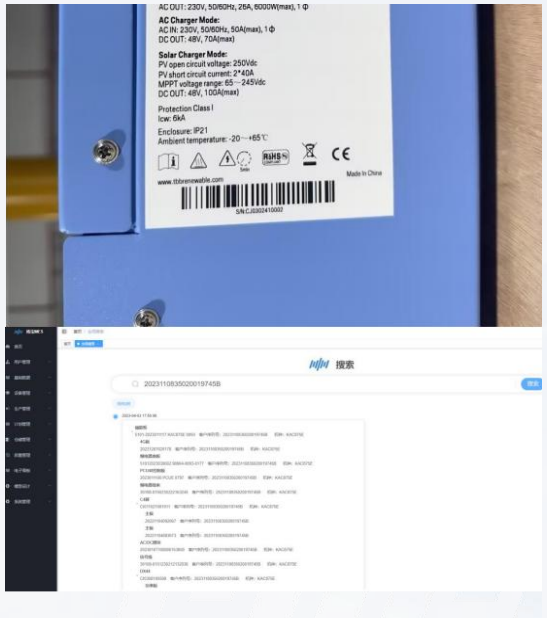
Connected equipment enables data collection, alerts, and defect blocking.

ESOP



Standardized processes improve production efficiency.

Product Traceability



Unique serial numbers ensure full after-sales traceability.

04

PART MARKET



MULTI-SCENARIO POWER SOLUTIONS



RV



LCV



HCV



Residential

RV Business

TBB Offers the RV Market:

- **4** Standard Platforms
- **10+** Standard System Solutions

Global Reputation:

- Over **60,000** systems installed annually
- Trusted by leading RV Brands in: **China, Australia, Europe, and North America**



LCV Business

Wide range of products & solutions — from **light-duty conversions** to **professional vehicle requirements**.



HCV Business

TBB provides **48V** power systems for the **HCV** segment, enabling **P0 hybrid** functionality with **BSG integration** and supplying **high-capacity auxiliary power** for long-haul operations and **emission-critical** components.



Residential Business

Off-grid and Hybrid Solution

- Leading Chinese provider of low-frequency inverters
- New topology products for various applications
- Systems from 3kW (residential) to 72kW (business)

Global Deployment

- **20,000+** systems installed annually worldwide
- Presence in **50+ countries** and regions, including: Australia, Europe, Africa, Asia and the Americas





THANKS

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