

# TIANWU-AIO

Liquid Cooling All-in-one BESS

100kW / 233kWh



# Product Introduction

## Energy Efficiency:

Our system is seamlessly integrated with PCS, EMS, BMS, CATL liquid-cooled batteries, liquid cooling system, fire suppression system, and power distribution system, ensuring exceptional energy efficiency.

## Simplified Installation and Transportation:

All internal components, including batteries, are pre-assembled, leading to significant savings in labor cost and loading space, thereby facilitating easier installation and transportation.

## Reliability, Flexibility, and Scalability:

With multiple safety protections, intelligent thermal management, and IP55 protection level, our system offers unmatched reliability, flexibility, and scalability, making it suitable for diverse applications and installations.

## Optimized Battery Performance:

Our liquid cooling system maintains battery cell temperatures within a narrow range of  $\pm 1.5$  degree, maximizing performance and extending lifespan.

## Quality Assurance:

By using battery modules from CATL ensures worry-free operation with guaranteed quality and comprehensive after-sales service.

## Backup Power Capability:

Equipped with a control cabinet and inhouse developed EMS, our system seamlessly provides backup power, intelligently switching between various power sources as needed.



On/Off Grid Transition

Co-Location of  
Assets(VRE)-Variable  
Renewable Energy

Self-consumption  
Optimization

Off-grid with  
Diesel Generator

Energy Arbitrage

# Application

Anti Backfeeding

FFR & FCR

Load Shifting

Demand Control

Back-up Power



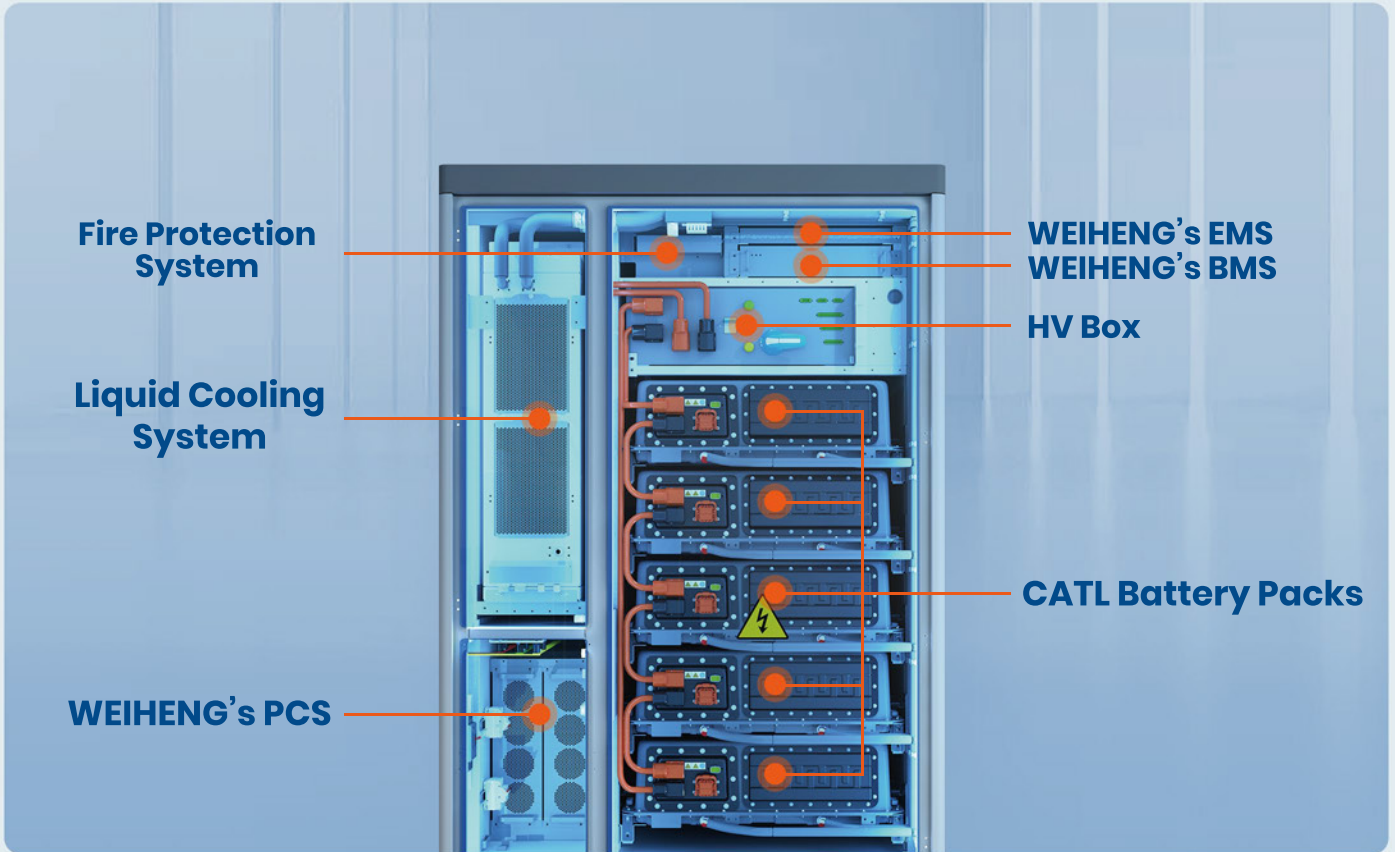
Electromagnetic Safety    Electrical Safety

Battery Safety    Transportation Safety

Firefighting System (FS) Safety    Function Safety



# ADVANTAGES



# HIGHLIGHTS



## All-in-one Design, Easy for Installation and O&M

MAX **91%**  
DC Efficiency

**15** Years  
Design Life  
\*Over 80% SOH Remaining (after 10 years)

**10000** Cycles  
CATL Battery Support

< **2** °C  
Difference Between  
Battery Cells

IP **55**  
Protection Level

< **1** Day  
Installation Time

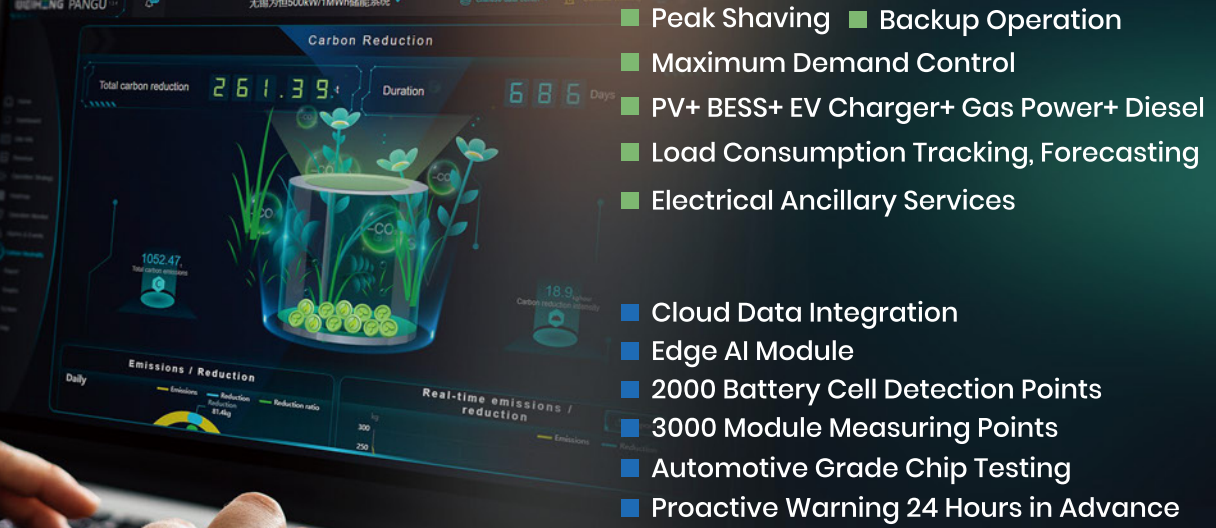
# TIANWU-AIO DATASHEET

Model	WH-TIANWU-50-233B	WH-TIANWU-100-233B
<b>Battery Parameters</b>		
Rated capacity	233kWh	
Rated voltage DC	832V	
Battery type	LFP (from CATL)	
Cell specification	3.2V 280Ah	
System battery configuration	1P*52S*5S	
<b>AC Parameters</b>		
Rated power	50kW	100kW
Max. Output Power	55kW	110kW
Rated AC Current	72A	144A
Rated voltage AC	400V, 3P+N+PE	
Rated frequency AC	50/60Hz	
Max.THD of current	< 3% (at nominal power)	
Power factor	-1~+1	
<b>General Data</b>		
Protection level	IP55	
Inverter topology	Non-isolated	
Operating temperature range	-20~55°C (derating @ > 45°C)	
Cooling method	Air cooling (PCS) Liquid cooling (Battery)	
Altitude	2000m	
Communication protocols	Modbus, TCP/IP	
Dimensions (W*D*H)	1400*1350*2100mm	
Weight	~2650kg	~2700kg



# ENERGY MANAGEMENT SYSTEM

Flexible control strategy,  
Multiple guarantees,  
Operation Safety.



## High Adaptability

Applicable to various energy storage scenarios, including on-grid, off-grid, on/off grid transition for C&I application, featuring complex topologies.

## High Security

Fine-grained precision O&M, AI-driven predictive control, and data analytics injection modeling.

## High Integration

Cloud-Edge integration system, cloud platform, AI integration at depth, Big Data, embedded solutions, full-stack control system

# C&I REFERENCE CASES



● Netherlands 466kWh

⚡ On grid



● Netherlands 466kWh

⚡ On grid



● China 233kWh

🔌 EV Charger+BESS



● Malaysia 466kWh

⚡ Off grid



● China 5.13MWh

⚡ On grid



● Thailand 1.4MWh

⚡ On grid



● China 2.8MWh

⚡ On grid



● China 1.86MWh

⚡ On grid



## About Us

WEIHENG is one of the world's leading and fastest growing suppliers of integrated energy storage systems.

We design, manufacture, deploy, and service battery energy storage systems (BESS) for the full range of customer segments.

- **Utilities (traditional power generation, solar/PV, etc.)**
- **Commercial and Industrial**
- **Residential and Distributed**



Three manufacturing facilities in China

## Served Customers



**WEIHENG** is a global leader in digital energy services.

**Jiangsu Weiheng Intelligent Technology Co.,Ltd.,**  
www.weiheng-tech.com | service@weiheng-tech.com  
Huishan District, Wuxi, Jiangsu Province, China



This data sheet is strictly informational and is not legally binding. The exact specifications and/or product features (particularly in case of further development of the product) may differ somewhat from the information provided here. Subject to errors and changes. Please read the safety and installation instructions carefully and completely before using the product.