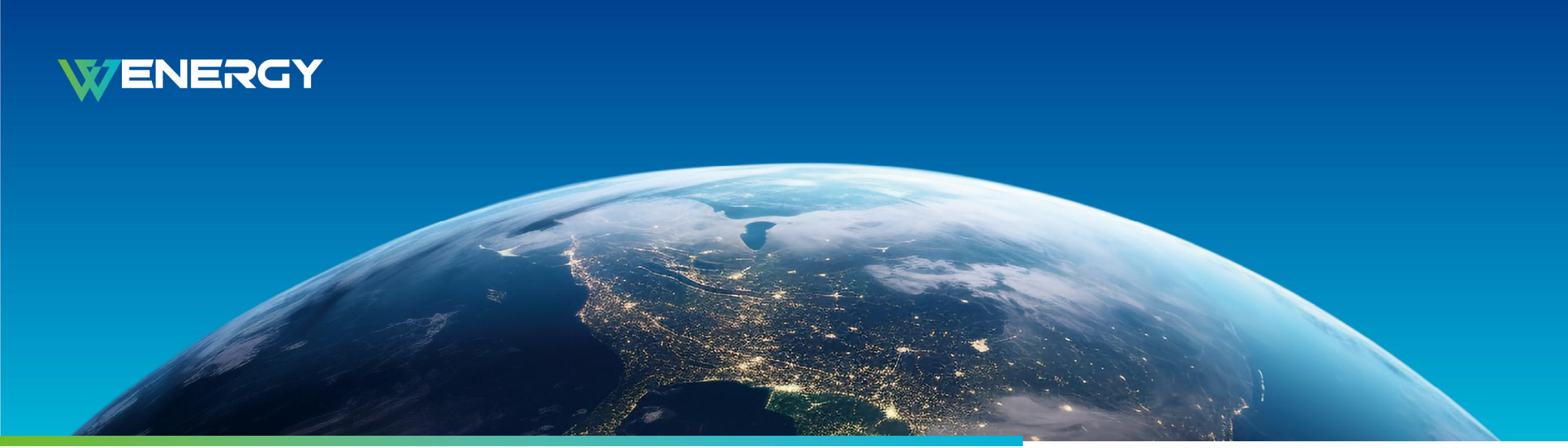


Smart Storage, Safe Power, Sustainable Future

- One-stop Energy Solutions
- Global Agility for Swift Deployment
- Zero Incidents Record

Catalogue

About Wenergy

Empowering Every Link in Clean Energy

Explore how Wenergy integrates materials, innovation, and global service to redefine energy storage.

Company Overview

Manufacturing Footprint & Global Reach

Wenergy Technologies Pte Ltd (Global)

R&D production bases: Xiangtan | Changsha | Yiyang in Hunan, China

1 Headquarter in Singapore

14 Years Battery Cell Manufacturing

15 GWh Annual Capacity

5 Global Branches (China, USA, Germany, Italy, Chile)

660,000+ m² R&D and Production Base

About Wenergy

Vertically Integrated ESS Mastery

From Cathode Materials and Battery Cells to Modules and Smart ESS Solutions






Raw Material	Battery Cell	Pack Assembly	Software Development	Wenergy BESS
Cathode, Anode, Electrolyte	14 Years R&D, Cell Manufacturing	Module Integration, BMS Integration	Top 3 EMS & BMS	**Premier ESS Provider**

R&D Team

Core Technology Domains

- Cathode and Anode Materials
- Electrolyte and Separator Materials
- Cell Structure Design
- BMS and Battery Pack Technology

R&D Focus

- Focus on the development of High-performance NCM and NCA cathode materials, energy storage batteries and solid-state batteries.

740+ Project Footprint

180+ Invention Authorization

490+ Patent application for invention

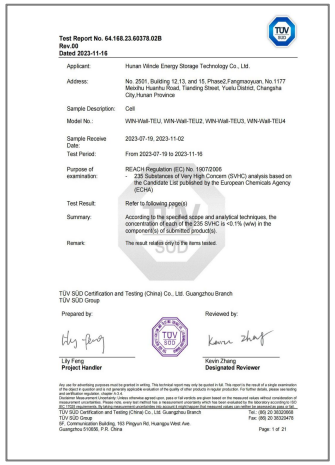
1+ Present Emeritus

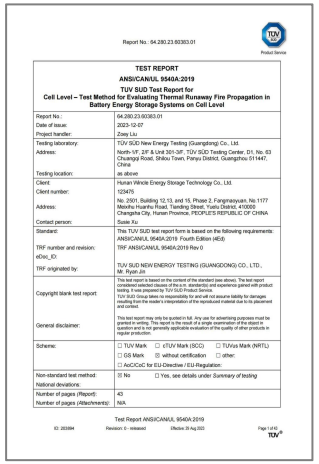
Quality Assurance

5 Years Warranty
Globally Certified Excellence in C&I Energy Storage Solutions









Global Certification **UN38.3** American Standard UL 1973 UL 9540 UL 9540A

European Standard RoHS COMPLIANT REACH COMPLIANT IEC62619, IEC60730, IEC61000, IEC63056, IEC62477, IEC62933, IEC60529 ISO13849 **RF/EMC**

Grid-connected Certification VDE 4105 VDE 4110 VDE 4120 **G99** **CEI 0-16** **CEI 0-21** **EN 50549-1** **EN 50549-10**

TOR Erzeuger **Polish Grid Code A3**
UNE 217002 **UNE 217001** **NTS 631**



(Partial certificates)

Global Reach

Products are sold to

6 continents / **60** countries & regions around the world

Total Scale: 2GWh+ (excluding cell sales)

20+

Industries Served with Tailored Solutions

Cement Industry, Industrial Manufacturing, Textile Industry, Electronic Industry, Environmental Protection Industry, Paper and Printing Industry, Data Centers...

End-to-End Service & Support

Pre-Sales

Consultation & Needs Assessment
Customized Solution Design & Financing Models

During Project

On-Site Assistance
Project Management

Premium After-Sales Service

Installation & Training

Flexible remote support and online guidance
On-site commissioning and system optimization
Hands-on operational training

Scheduled Maintenance

Scheduled system inspections
Proactive component servicing

Fault Resolution

Rapid fault diagnosis and repair
OEM-certified replacement parts

Parts Supply

Local inventory for fast delivery
Hardware upgrade options

Global Warehousing

China, Netherlands, South Africa

Customer - Partner Synergy

Feedback Mechanism & Strategic Customer Collaborations

Listen

After-sales support
Email feedback
Online surveys

Respond

Dedicated service team
Categorized issue handling

Improve

Targeted solutions
Process optimization

Measure

Regular CSAT surveys
Service strategy adjustment

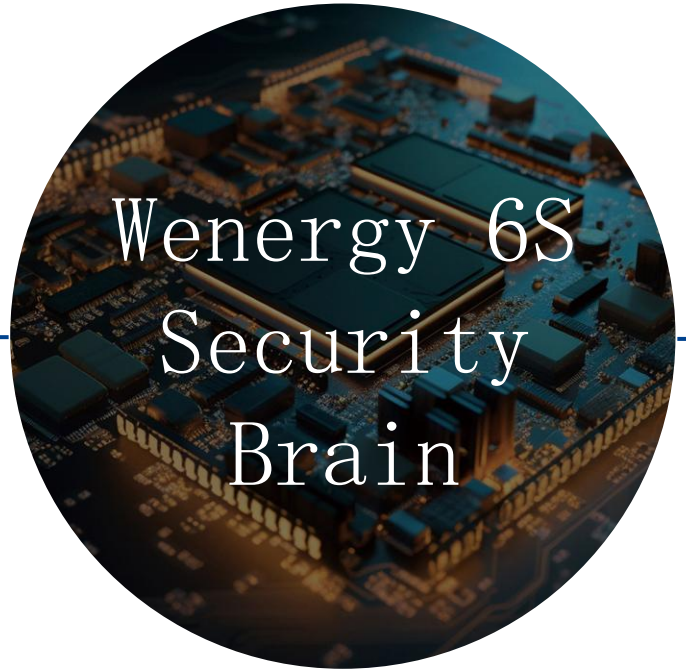
Wenergy Technologies

Safety First, Zero Incidents

Whole supply chain management | Professional intelligent control | Full safety guarantee

Comprehensive Security Solution

- **iPCS Security Conversion**
  Security conversion: integrated and flexibility charging/discharging
- **iEMS Security Management**
  Security management: smart control + pre-Warning Radar
- **iBMS Security Protection**
  Security protection: real-time monitoring + active protection



- **Security Design**
  Security design: hardware and structure security+efficient energy storage
- **Security Process**
  Security process: battery doctor + repair butler
- **Security Fire Prevention**
  Security fire prevention: thermal assistant + fire guard

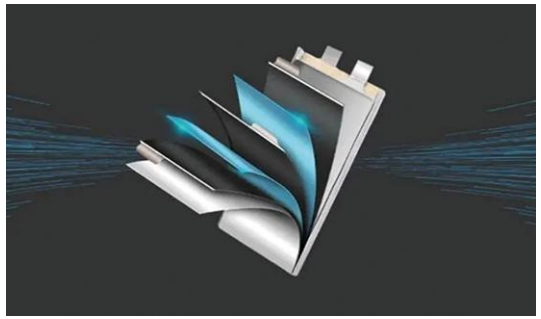
Comprehensive Security Solution

Design	Security system, multi-layer protection, fire protection
Materials	LFP material with safe and stable performance
Cabinet	3 level security structure from system to pack to battery
BMS	Real-time monitoring, active protection
Battery	Mature technology, MES production, fully testing
PCS	Security conversion, integrated and flexibility charging/discharging
PACK	Safety module, safety material, insulation warning
Fire Protection	Thermal control assistant fire guard
EMS	Security management, smart control + pre-warning radar
Operation	Remote operation and maintenance for troubleshooting

Full Chain Production 10 Keypoints to Ensure Safety

Advanced Hardware Capabilities

High Energy Density LFP Material High Safety Battery

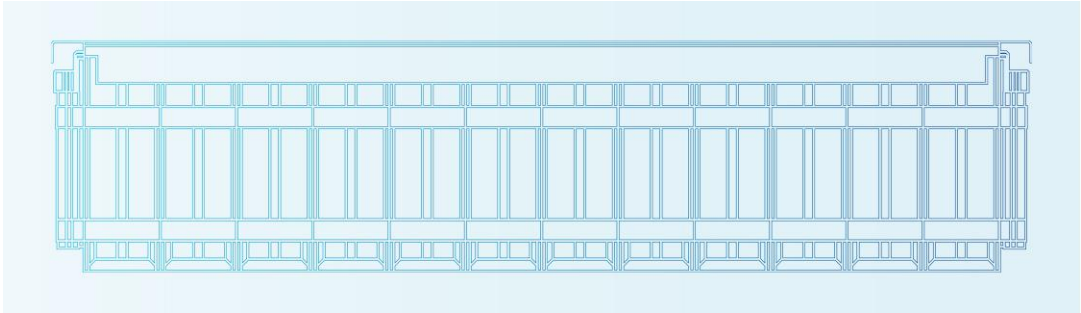


- **High Energy Density:**
Material pole pieces compacted density up to 2.75g/cc
- **High Capacity:**
Gram capacity exceeds 145mAh/g
- **Long Cycle Life:**
Cycle life exceeds 10,000 cycles

- **High Energy Density:**
>170 Wh/kg energy density,
>96% energy efficiency
- **Long Cycle Life:**
10,000 cycles & 0.5P & 70%
- **High Quality and Safety:**
Three-level safety design to prevent fire throughout the product life cycle

High-Safety Battery PACK Technology

Self-developed and produced battery, Advanced battery integration technology



- **High Integration:**
Topology optimization and structural innovation improve pack efficiency to 70%+
- **New Material Application:**
Lightweight materials, low-density composites (e.g., carbon fiber) and high-strength metals
- **High Safety:**
Protection rating:IP67
- **Advanced Manufacturing Technology:**
Large-scale aluminum alloy die-casting, advanced joining techniques, and surface enhancement treatments
- **Thermal Management:**
Optimized structural and system-level design with high-temperature resistance

Wenergy Technologies

Software Intelligence

iBMS Intelligent Battery Management System

Information collection | Security management | State estimation | Charge and discharge management | Balance management

Robust Hardware & Real-Time Optimization

Dual-processor architecture ensures **high reliability and fault tolerance.**
Cloud-driven real-time balancing maximizes battery performance and lifespan.

Comprehensive Safety Features

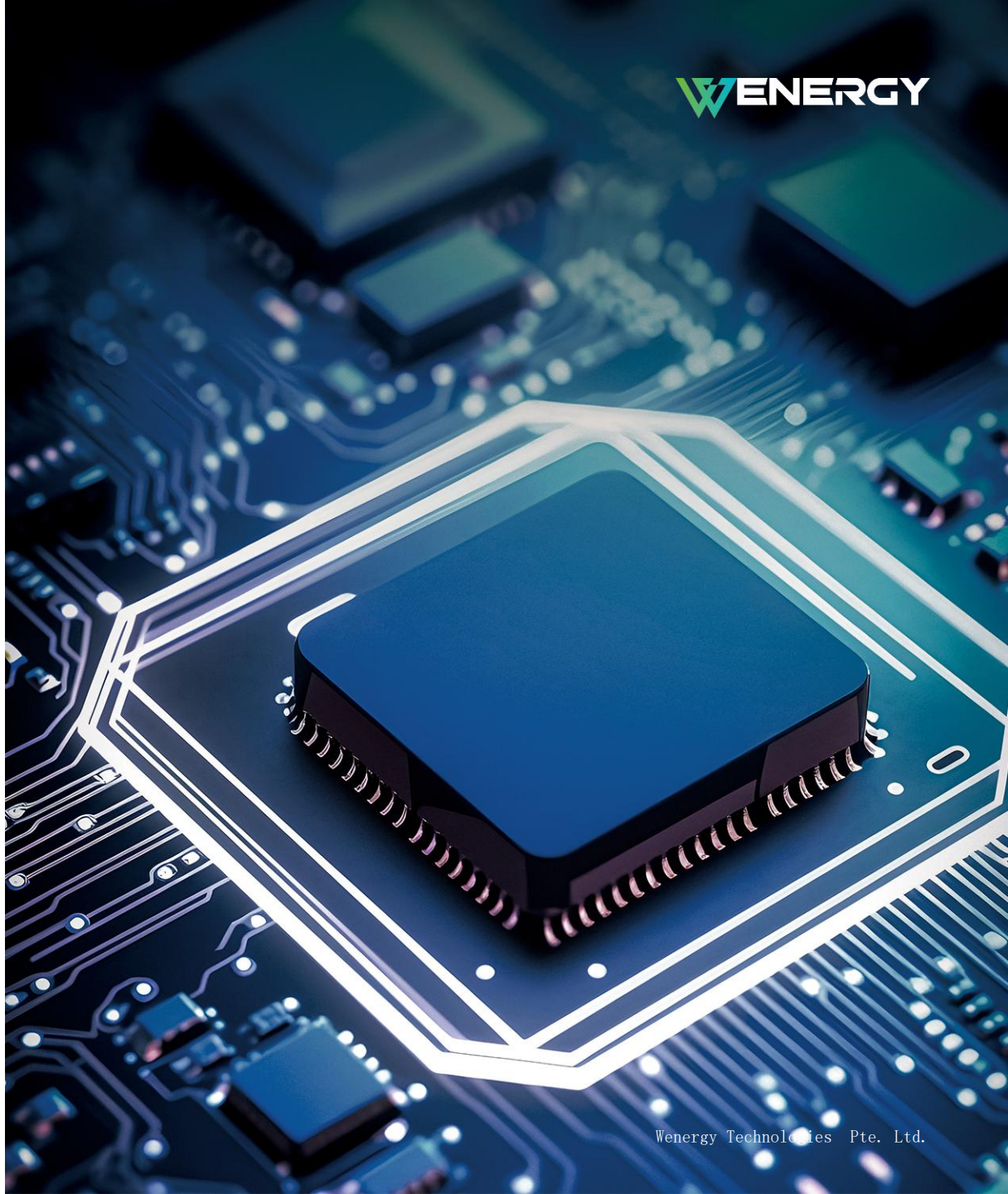
90%+ diagnostic coverage with 4KHz sampling detects anomalies instantly.
Surge protection provides **electrical hazard safeguard.**

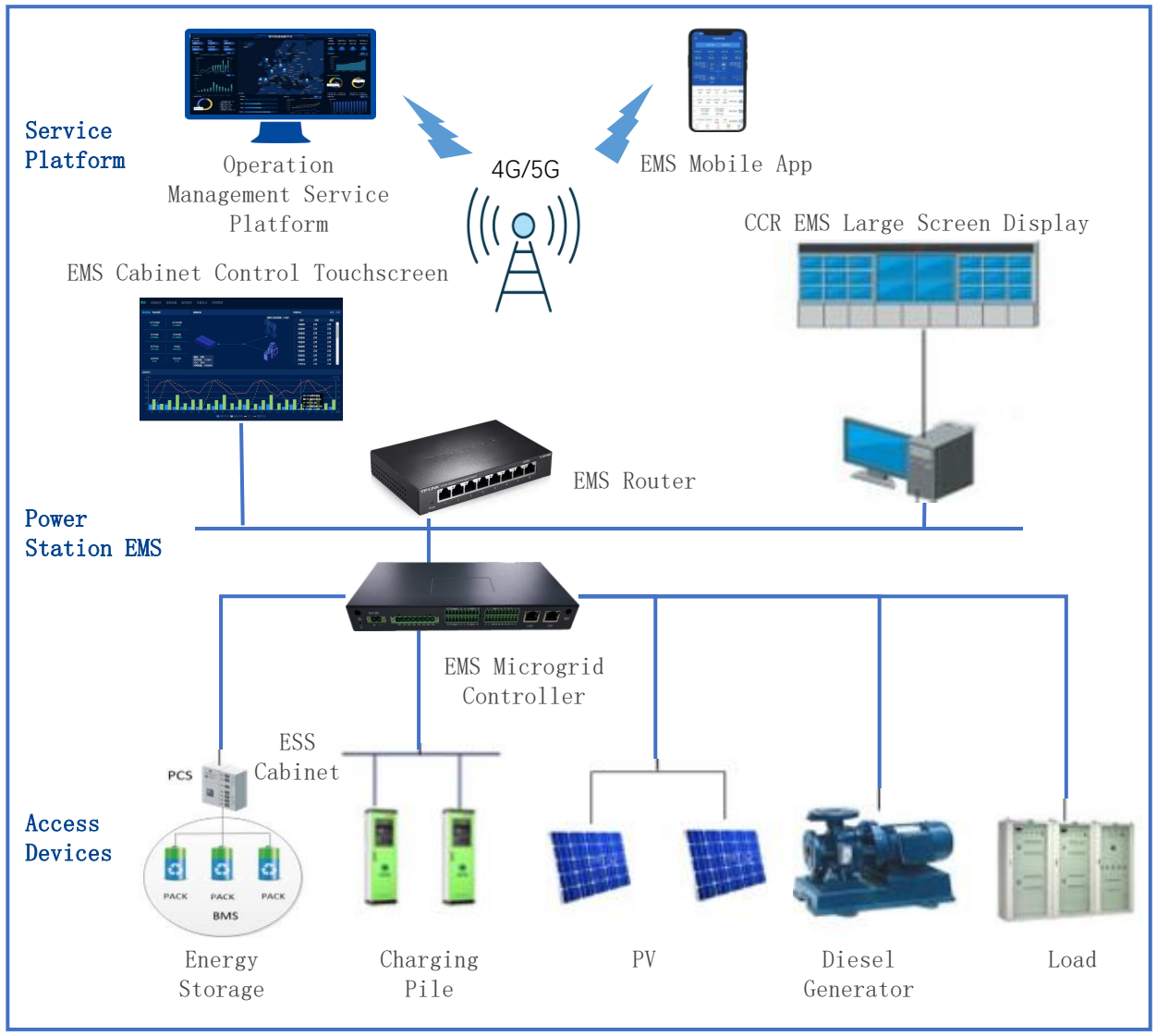
Seamless Integration & Scalability

Effortless iEMS integration enables peak shaving, grid compliance, and demand response.
Multi-cluster operation offers scalable, flexible energy solutions.
Compatible with P72, M76, P75, and M77 series devices.

Advanced Data Capabilities

180-day expandable local storage supports in-depth historical analysis.
Multi-mode operation adapts to diverse scenarios via **pre-configured mainstream protocols** for easy integration.





iEMS Intelligent Control & Profit Boost

Global Delivery | Self-Developed Core Tech | Quick Deployment

Integrated System Connectivity

Directly integrates with customer-owned EMS systems, and utilizes over 100 protocols for seamless device integration, enabling rapid setup across grid-tied, off-grid, and hybrid setups.

AI-Powered Trading & Optimization

Localized real-time price capture drives automated trading, while AI forecasts solar output, load demand, and prices for optimal scheduling. Smart dispatch coordinates multi-energy systems, enhancing efficiency and preventing backflow.

Ultra-Fast Edge Control & Resilience

With **millisecond response** for real-time data collection and control, edge computing ensures local, reliable energy management. The robust design guarantees stable operation in extreme conditions, with **high electrical isolation and voltage resistance** for secure operations.

Cost & Profit Maximization

Dynamic tariff management, revenue sharing, and strategies like **peak shaving, load shifting, and demand response** significantly reduce costs and boost profits.

Software Intelligence

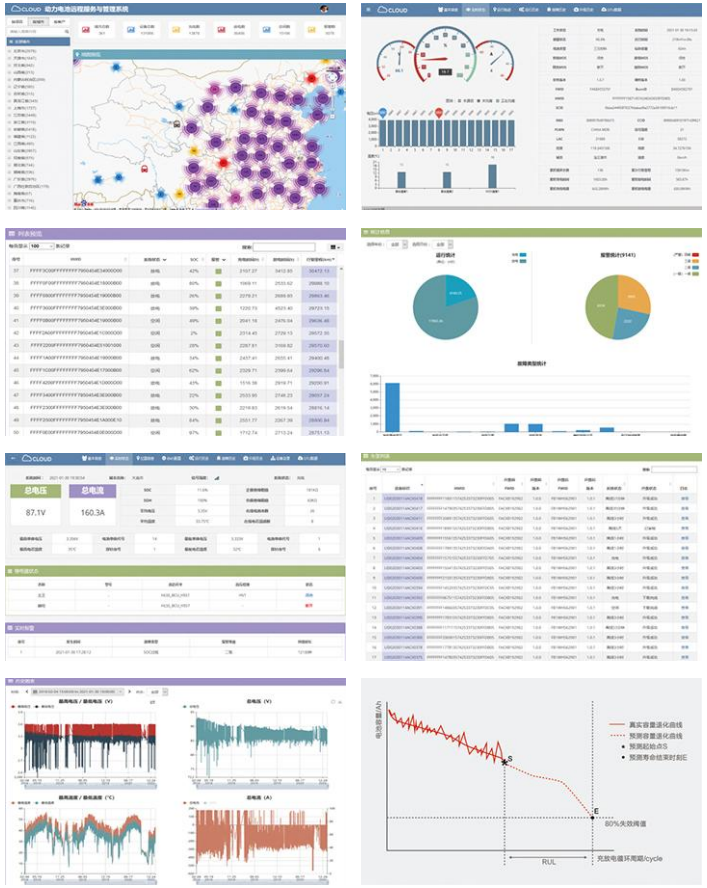
Smart platform

- **Real-time Monitoring**
  Multiple filters,
  real time monitoring.

- **Inquiry statistics**
  Records of alarm and
  charge discharge

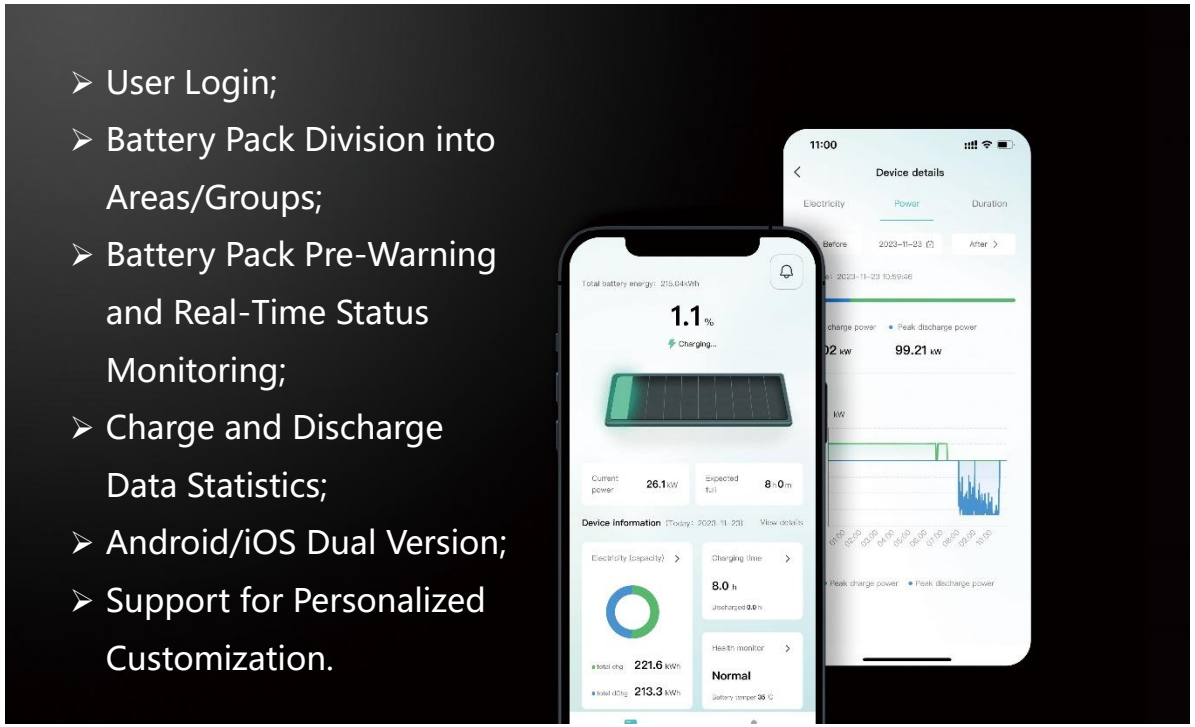
- **Remote management**
  Remote upgrade and
  diagnosis.

- **Data services**
  Health and lifes
  assessment.



Smart APP

• For ESS users, it provides functions such as power generation data viewing, real-time status monitoring, and operation and maintenance management.



Wenergy Solutions

• PV+Storage Integration

Store excess solar energy for use during non-generating hours, ensuring a continuous and reliable power supply. Ideal for maximizing solar energy utilization.

• Frequency Regulation

Utilizes energy storage's fast response to correct grid frequency fluctuations. Ensures grid stability and reliability by quickly adjusting power output.

• Backup Power Supply

Ensure uninterrupted power during outages with our robust backup solutions. Essential for critical infrastructure and emergency power needs.

• Peak-Valley Arbitrage

Optimize energy costs by storing electricity during low-rate periods and using it during high-rate times. Great for reducing energy expenses and managing consumption.

Application Scenarios

Industrial Use
Commercial Use
Remote Area Use

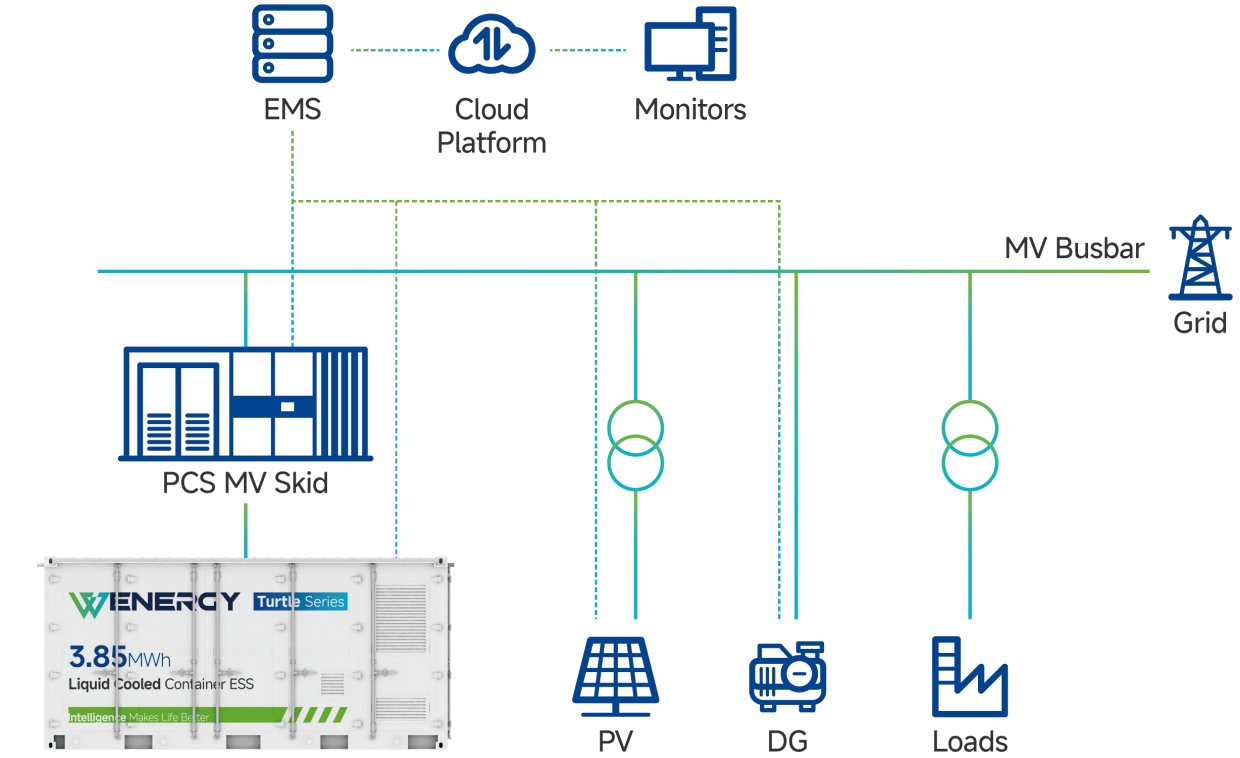
Key Functions

Seamless Integration
PCS MV Skid and MPPT Inverter enable seamless connection of all energy sources, ensuring smooth interaction.

Multi-source Coexistence
The system allows multiple AC power sources (PV, DG, grid) to coexist, providing stable power.

Mode Switching
It automatically switches between diesel - backup and off-grid PV - ESS power. Diesel gensets take over during outages or PV shortages for continuous supply.

Efficiency Optimization
Designed to minimize losses and maximize efficiency, the system uses intelligent load management and dynamic power distribution for optimal component operation.



Turtle Series Container ESS

Application Scenarios

Industrial & Commercial Use
Residential Micro-grid Use
Remote or Off-grid Area Use for Renewable Energy Storage
EV Charging Station Use

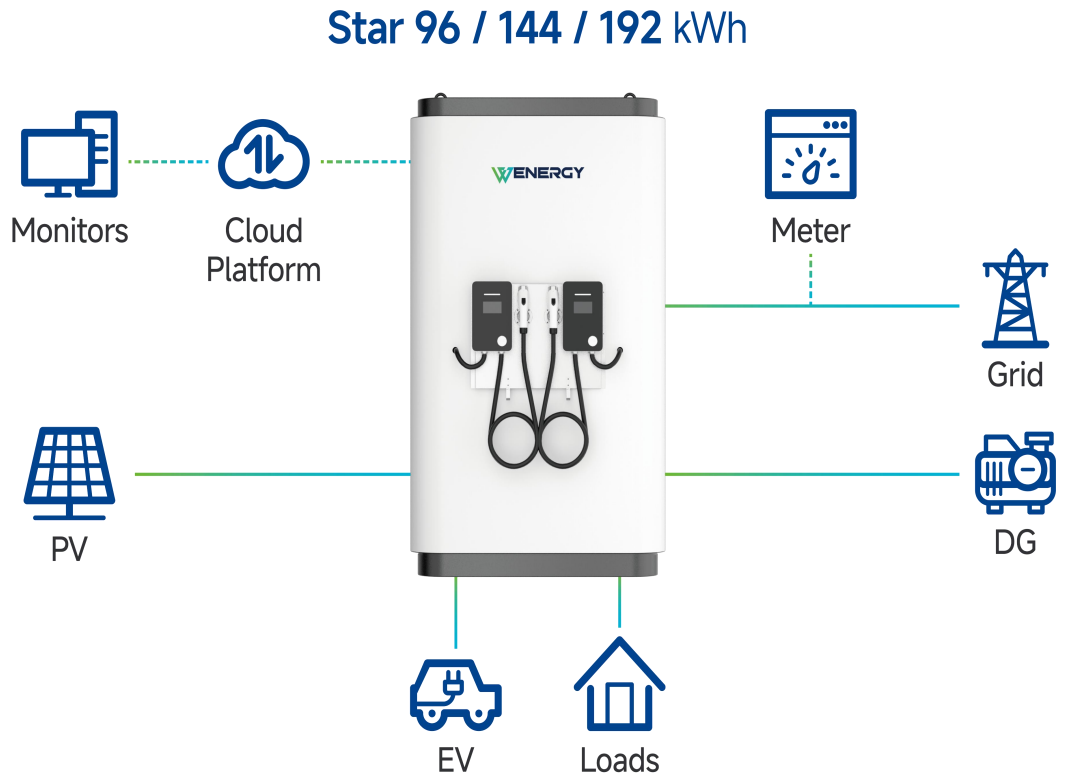
Key Functions

All-in-One Integration
The energy storage system integrates the battery, liquid-cooling, fire-fighting, and AC charging pile PV converter, simplifying installation and operation.

Power Generation Tracking
It tracks power generation plans, storing excess PV power and releasing it as required for reliable output.

Peak-Valley Management
Performs "peak-shaving and valley-filling" by storing power in low-demand times and supplying during peaks, optimizing grid efficiency and cutting costs.

EV Charging Support
Integrated AC charging piles enable convenient EV charging, using stored PV or off-peak grid power for clean transportation.



Application Scenarios

Residential Use
Small-scale Industrial & Commercial Use
Remote or Off-grid Area Use

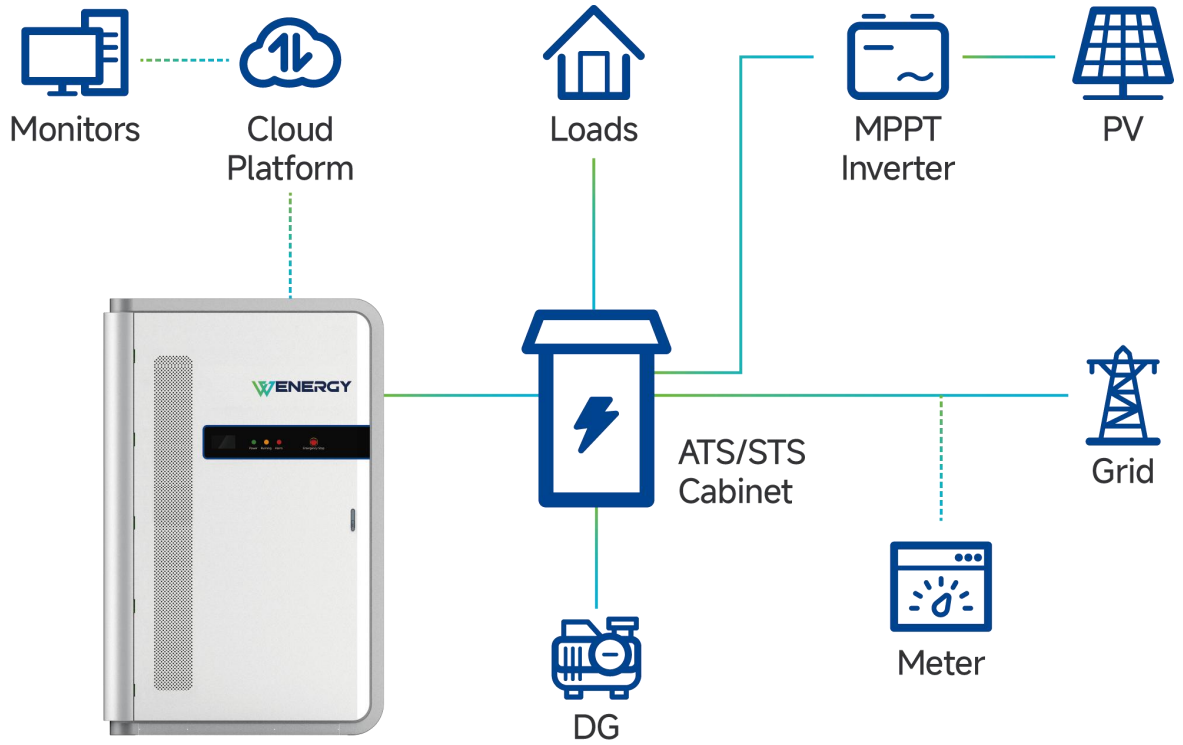
Key Functions

All-in-One Integration
The energy storage system combines the battery, PCS, liquid-cooling, fire-fighting, and EMS. The in-cabinet PCS enables "plug and play" for easy setup.

Flexible Configuration
ATS and STS in the switching cabinet enable adaptable combinations of PV, ESS, DG, grid, and loads, which fit various scenarios.

Smooth Mode Switching
It switches seamlessly between grid-connected and off-grid modes, ensuring continuous power supply.

Smart Energy Management
EMS monitors and optimizes energy flow, maximizing system efficiency.



Star 215 / 258 / 289 kWh

Application Scenarios

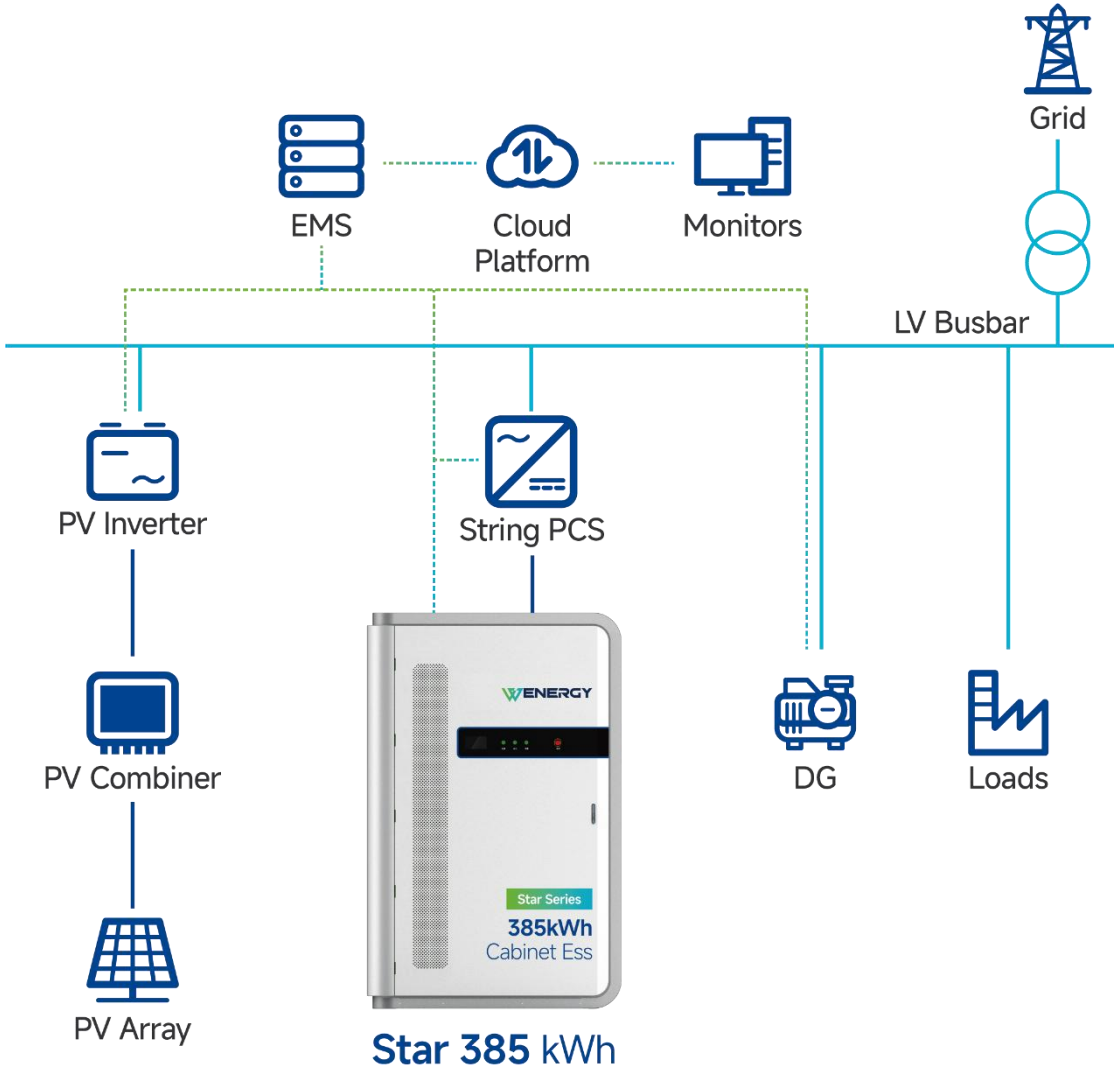
Industrial & Commercial Use
Residential Micro-grid Use
Remote or Off-grid Area Use

Key Functions

Integrated Management
Integrates PV inverters, string PCS, and energy storage. EMS via the cloud platform enables centralized control for efficient energy distribution.

Flexible Power Interaction
Allows smooth switching and interaction among PV, storage, grid, and diesel generators to meet different power demands.

Real-time Monitoring & Control
Monitors system in real-time. EMS adjusts power distribution promptly based on load and energy status for reliable supply.



Wenergy Products

Powering the Future,Safely and Efficiently

embodying intelligence and technological prowess for optimized performance in sustainable energy applications

Wenergy Products

Turtle Series Container ESS

Product Highlights

- **Enhanced Safety**

Integrated intelligent management and fire protection systems ensure full lifecycle safety and stable operation.

- **Efficient Liquid Cooling & Durability**

Advanced liquid cooling for precise temperature control, extending battery life, with **IP54 protection** and **C4H anti-corrosion** for harsh environments.

- **Smart Monitoring & Management**

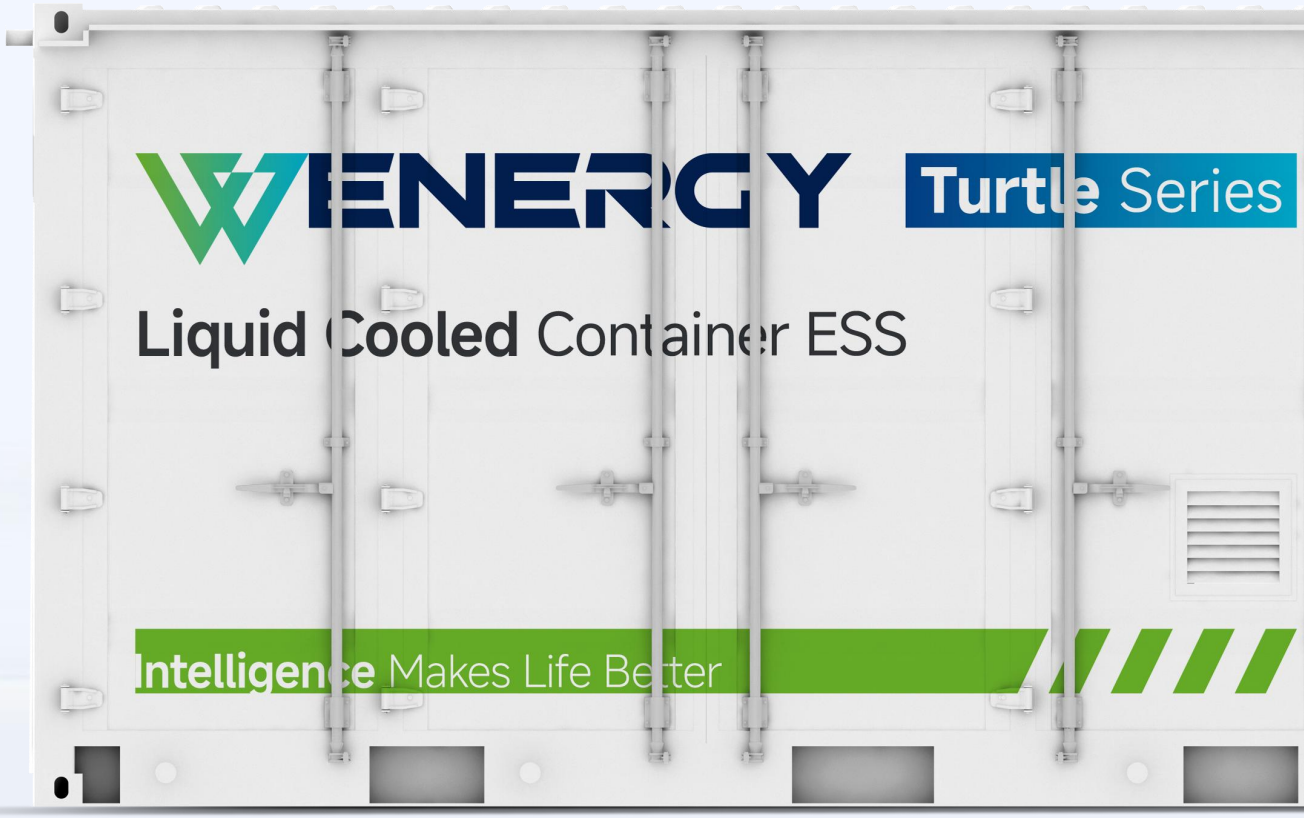
Integrated **BMS + PaaS + SaaS** platform enables precise temperature control, remote monitoring, and improved energy management efficiency.

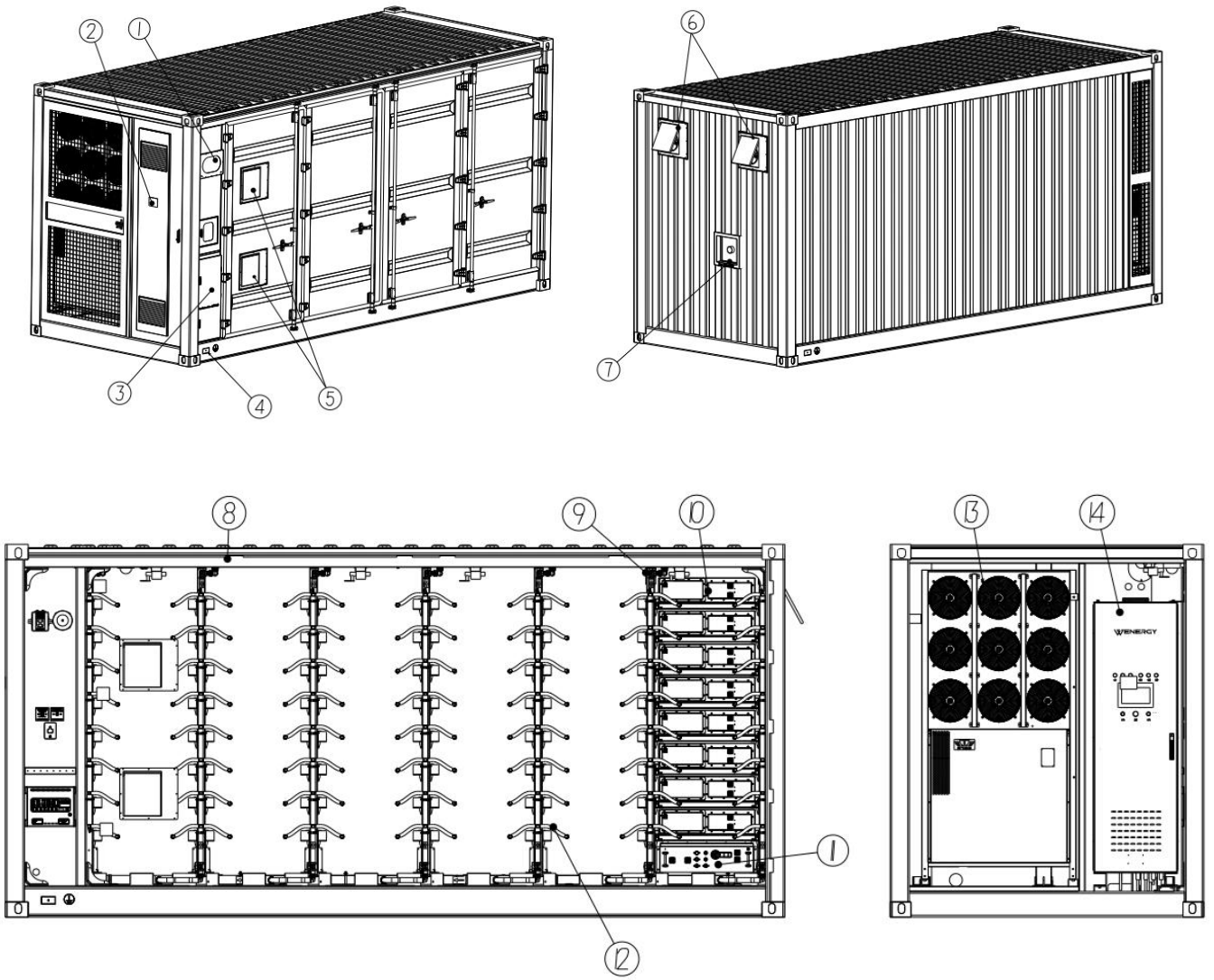
- **Cost-Effective & Easy Maintenance**

Large module design reduces installation and maintenance costs by **50%** compared to traditional solutions.

- **High-Density Container**

Features 314Ah cells and optimized structural design, increasing single-container capacity to 5.016MWh while saving **30%+** space compared to previous models.





System Layout Instructions

① Audible and Visual Alarm

② Nameplate

③ Fire Control Box

④ Ground Point

⑤ Air Inlet

⑥ Air Outlet

⑦ Fire Extinguishing Water Outlet

⑧ DC Combiner Box

⑨ Fire Extinguishing System

⑩ Battery Module

⑪ High-Voltage Box (PDU)

⑫ Thermal Management System

⑬ Liquid Cooling Unit

⑭ Combiner Cabinet

Taking Turtle Series 5MWh Energy Storage Container as an example.

Wenergy Products

Turtle Series Container ESS

3.44/3.85/5 MWh

Safe Energy Storage System Solutions Expert

Product Parameter

Model	Turtle 3.44	Turtle 3.85	Turtle 5
Battery Type	LFP 280Ah	LFP 314Ah	LFP 314Ah
Rated Energy	3.44MWh	3.85MWh	5.016MWh
Rated Power	1.725MW	2MW	2.5MW
DC Rated Voltage	1228.8V	1228.8V	1331.2V
DC Voltage Range	1075.2V ~ 1382.4V	1075.2V ~ 1382.4V	1164.8V~1497.6V
Max. Efficiency of System	> 89%		
IP Protection Level	IP54		
Weight (kg)	33,000	36,000	43,000
Cooling Type	Liquid Cooling		
Noise	<75 dB (1m away from the System)		
Communication Interface	Wired: LAN, CAN, RS485		
Communication Protocol	Modbus TCP		
System Certification	**IEC 60529, IEC 60730, IEC 62619, IEC 62933, IEC 62477, IEC 63056, IEC/EN 61000, UL 1973, UL 9540A, UL 9540, CE Marking, UN 38.3, TÜV Certification, DNV Certification, NFPA69, FCC Part 15B.**		

Wenergy Products

Turtle M Series

Mobile Energy Storage Vehicle

289 / 723kWh
(Customizable Capacity)

- **High-performance**
Boasts high-power discharge, with a cycle efficiency exceeding **89%**, ensuring long-term stable operation.

- **Long-lasting**
Features an extended battery life cycle, over **8000 cycles**, and up to **15 - year** service life.

- **Ultra-safe**
With an **IP67**-rated battery system and advanced liquid cooling and fire-fighting, ensuring optimal cell conditions and safety.

- **Mobile & Versatile**
Mounted on a light truck for easy relocation, providing flexible power for outdoor activities.

System Applications

Microgrid Applications
Renewable Energy Integration
EV Charging Stations
Emergency Power Supply
Highway Service Area Emergency Charging

Auxiliary Power Supply
Self-powered / External Power Supply

Maximum Cycle Efficiency
>89%

Cooling Method
Intelligent Liquid Cooling

Operating Humidity Range
≤95%RH

Protection Level
IP54

Operating Temperature Range
-30~45℃

Fire Protection System
Aerosol Fire Fighting

Wenergy Products

Star Series Cabinet ESS

Product Highlights

- **Exquisite Exterior**

Unique curved design

- **Versatile & Customizable Configurations**

Supports integrated **PV, ESS, diesel, and EV charging**, adaptable to diverse energy needs.

- **Smart EMS Integration**

Cloud-enabled energy management with Modbus TCP/CAN2.0protocols for **real-time data analytics** and **AI-driven** optimization.

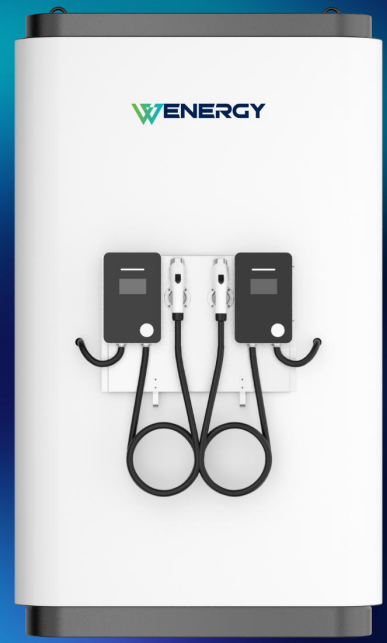
- **90% High System Efficiency**

Exceeds industry standards, ensuring optimal energy utilization and cost savings.

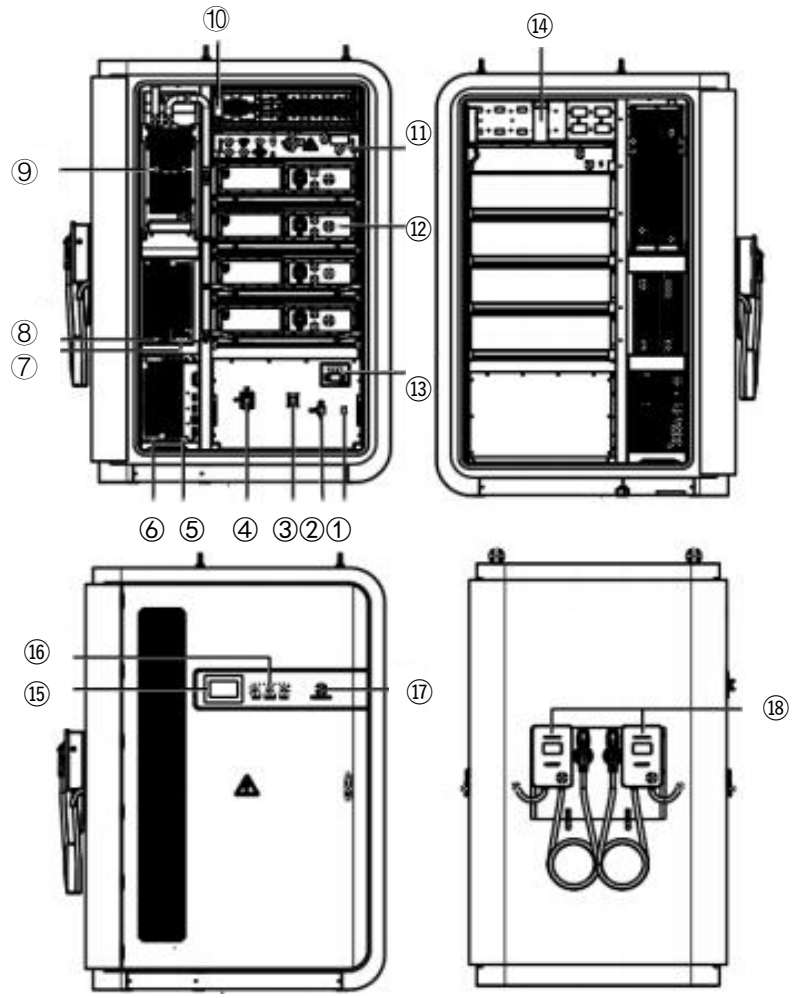
- **Enhanced Safety & Durability**

Features **IP54 protection, C4H corrosion resistance**, and **aerosol fire suppression** for reliable operation in harsh conditions and rapid fire response.

Star 258/289/385



Star 192



System Layout Instructions

① Load Breaker 01 (optional)

② Load Breaker 02

③ Main Breaker 01

④ Main Breaker 02 (optional)

⑤ STS (optional)

⑥ Photovoltaic Converter MPPT (optional)

⑦ Voltage Converter DCDC

⑧ PCS

⑨ Liquid Cooling Unit

⑩ EMS

① 11. PDU

② 12. Battery System (optional 2 to 4 packs)

③ 13. Multi-Power Transfer Switch ATS (optional)

④ 14. Fire Suppression System

⑤ 15. Display Screen

⑥ 16. Indicator Light

⑦ 17. Emergency Stop Button

⑧ 18. AC Charging Pile (optional)

Taking Star Series 192 Energy Storage Cabinet as an example.

All-in-1 Cabinet ESS

Product Parameter

Integrated PV, ESS, Diesel and EV Charging Capabilities

Star 192

Flexible Capacity Options

96/144/192kWh

Optional Multiple Configurations

MPPT

Four in - cabinet PV interfaces with built - in inverter—no extra inverter needed, cuts costs & simplifies setup.

STS

Ensures automatic and seamless switching between grid and off-grid modes for uninterrupted power.

ATS

Connects grid and backup generators for flexible power input.

Charging Gun

Supports electric vehicle (EV) charging.

Model	Star 192		
Rated Energy	96.46kWh	144.69kWh	192.92kWh
DC Voltage Range	240~350.4V	360~525.6V	480~700.8V
Rated Power	125kW		
AC Rated Voltage	400V		
Rated Output Frequency	50Hz		
IP Protection Grade	IP54		
Corrosion-proof Grade	C4H		
Cooling Type	Liquid Cooling		
Noise	<75dB(1m Away from System)		
Dimension(W*D*H)	(1800±10)*(1435±10)*(2392±10)mm		
Communication Interface	Ethernet		
Communication Protocol	Modbus TCP/IP		
System Certification	**IEC 62619, IEC 60730-1, IEC 63056, IEC/EN 62477, IEC/EN 61000, UL1973, UL 9540A,CE Marking, UN 38.3, ISO 9001, ISO 14001, ISO 45001, TÜV Certification, DNV Certification**		

*Standard:PCS、DCDC | Optional: MPPT (60KW)、STS、ATS、AC EV Charger (22KW*2)

Wenergy Products

Star Series Cabinet ESS

Product Parameter

ESS **Star 215/258/289/385**

- International General Certifications
UN38.3, IEC 62619

- Functional Safety and Energy Efficiency Certifications
IEC 60730-1, IEC 63056, IEC/EN 61000

- Structural and Protection Certifications
IEC 60529

- European Market Certifications
IEC 62040 or 62477, RF/EMC, UKCA (IEC 62477-1), UKCA (CE-EMC Transfer)

- North American Market Certifications
UL1973, UL9540A

Model	Star 215	Star 258	Star 289	Star 385
System Parameters				
Battery Type	LFP 280Ah	LFP 280Ah	LFP 314Ah	LFP 314Ah
Rated Capacity	215kWh	258kWh	289kWh	385kWh
Cooling Type	Liquid Cooling			
IP Protection Level	IP54			
Corrosion-proof Grade	C4H			
Fire Protection System	Perfluoro / HFC-227ea (Optional)			
Noice	75dB	< 75dB (1m Away from the System)		
Dimension	935*1250*2380mm	(1588±10)*(1380±10)*(2450±10)mm		1578mm*1380*2500mm
Weight	2700±100kg	2950±150kg	3050±150kg	≤3900kg
Working Temp. Range	-30℃~55℃ (Derating When > 45℃)			
Relative Humidity Range	0~ 95 % (Non-condensing)			
Communication Interface	RS485 / CAN			
Communication Protocol	Modbus TCP/CAN2.0	Modbus TCP		
Cycle Life	≥6000	≥8000	≥8000	≥10000
Max. Efficiency of System	86%	> 89%	>89%	>93%
Quality Guarantee	3 Years	≥5 Years		
EMS	Local Control	Built-in	Built-in	External
DC Battery Parameters				
Rated Voltage	768V	921.6V	921.6V	1228.8V
Voltage Range	672~864V	720 ~ 1000V	720 ~ 1000V	960 ~ 1401.6V
Charge & Discharge Ratio	0.5P			
AC Side Parameters				
Rated AC Voltage	400V	400V	400V	-
Rated Output Frequency	50/60Hz	50/60Hz	50/60Hz	-
Rated Power	100kW	125kW	125kW	-
Rated Current	144A	182A	182A	-
Max. AC Power	120kW (60S 25℃)	150kW (60S 25℃)	150kW (60S 25℃)	-

Wenergy Products

Great Wall Series Residential ESS

Product Highlights

- **Safe reliability**
LiFePO4 square shell cell, multiple hardware level protection.

- **Long life**
The charging and discharging life exceeds 6000 cycles, and the service life of the system exceeds 15 years.

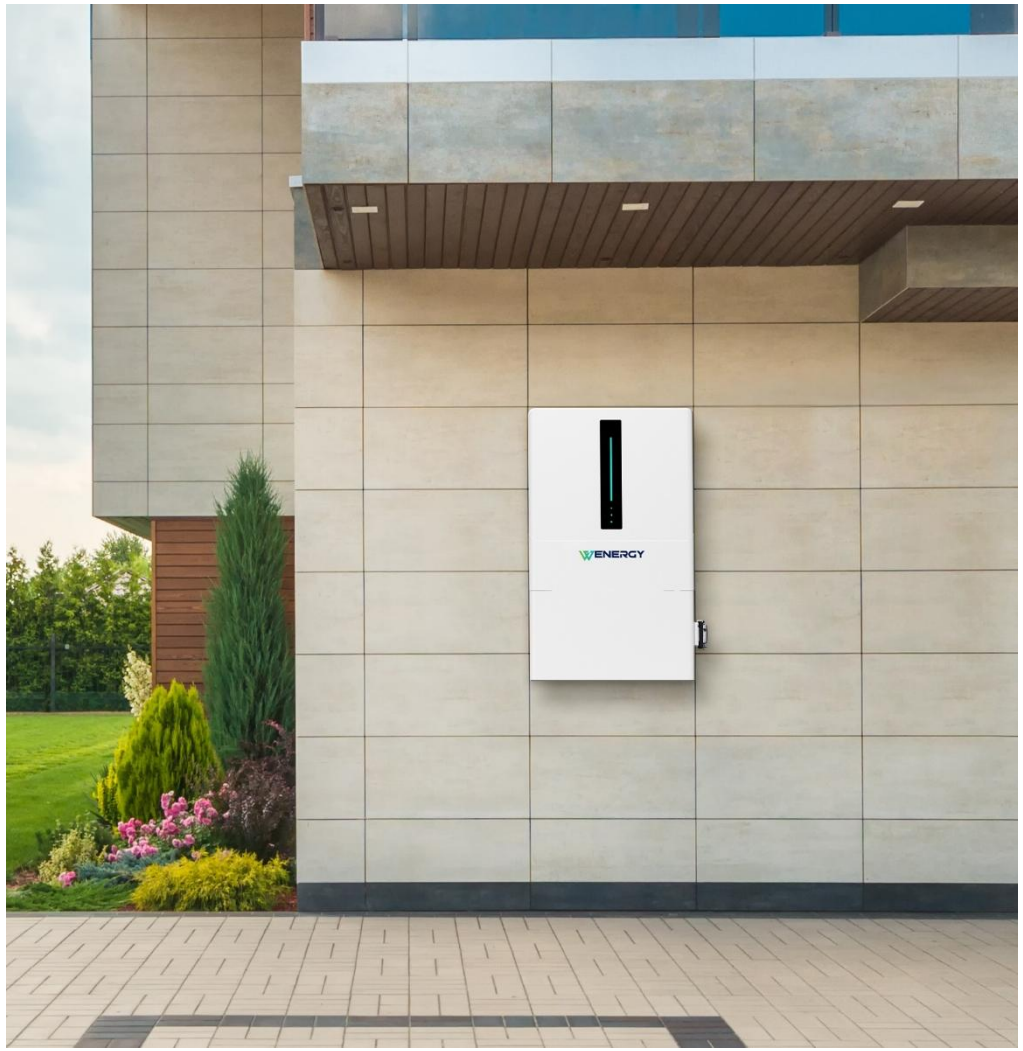
- **iBMS**
※ Rich hardware self-diagnosis circuit and key loop redundancy design.

- **Ease of installation**
Wall-mounted design saves floor space.

- **Flexible extensibility**
Modular design, maximum 30kWh, support 1-6 batteries in parallel.

- **Strong environmental adaptability**
Temperature adaptation range: -10℃ ~ 55℃, IP65 protection.

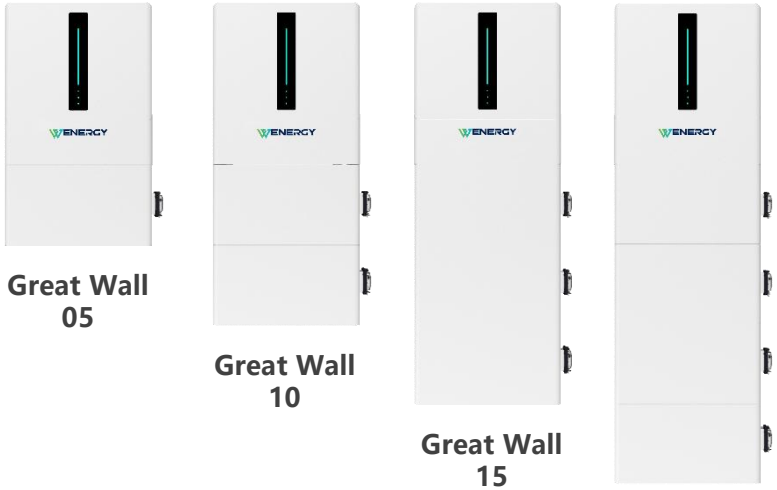
- **Perfect compatibility**
Compatible with single phase/three phase inverters, support CAN/RS485 communication protocol.



Great Wall Series Residential ESS

Model	Great Wall 05	Great Wall 10	Great Wall 20	.....	Great Wall 30
Configuration	2P16S	2P16S:2pcs	2P16S:4pcs	.....	2P16S:6pcs
Size	600*900*220mm	600*1200*220mm	600*1800*220mm	.....	600*2400*220mm
Weight	67kg	109kg	193kg	.....	277kg
Nominal Voltage	51.2V				
Voltage Range	40-58.4V				
Rated Capacity	100Ah	200Ah	400Ah	.....	600Ah
Rated Energy	5.12kWh	10.24kWh	20.48kWh	.....	30.72kWh
Max. Charge Current	50A				
Max. Discharge Current	100A				
Depth of Discharge	90%				
Communication Protocol	CAN/RS485				
Cycle Life	≥6000times @25℃ 0.5C				
Operating Temp. Range	Charge: 0~55℃; Discharge: -10~35℃				
System Certification	**ISO13849, IEC/EN 62619, IEC/EN 61000, IEC/EN 62040, UL1973, UL9540A**				

Product Parameters



Great Wall 05

Great Wall 10

Great Wall 15

Great Wall 20

.....

Expandable

up to 30kWh

Application Cases

Our Mission Goes Beyond Energy Storage

With every project, we’re not just delivering products—we’re fueling industries, energizing communities, and helping shape a sustainable future.

Application Cases

CEEC-CGGC Group Project Cluster

Total Scale: 46.625MW/94MWh

Safe Energy Storage System Solutions Expert

WENERGY

◆ CGGC-Laohekou Cement ESS Project

Location Xiangyang, China

Scale **10.2**MW / **20.64**MWh

◆ CGGC-Yicheng Cement ESS Project

Location Xiangyang, China

Scale **13.6**MW / **27.52**MWh

◆ CGGC-Jiayu Cement ESS Project

Location Xianning, China

Scale **10.2**MW / **20.64**MWh

◆ CGGC-Zhongxiang Cement ESS Project

Location Zhongxiang,China

Scale **6.9**MW / **13.76**MWh

◆ CGGC-Gezhouba Special Cement ESS Project

Location Changde, China

Scale **5.725**MW / **11.44**MWh

China CGGC-Gezhouba Special Cement ESS Project

Location Shimen County, Hunan Province

Scale Phase 1: **4**MW / **8**MWh
Phase 2: **1.725**MW / **3.44**MWh

Application Scenario Photovoltaic + Energy Storage

Project Overview

Utilizing high-safety lithium iron phosphate battery technology and a prefabricated modular design, the project integrates solar power and waste heat recovery to enhance energy efficiency.

Since its launch, it has discharged approximately 6 million kWh of electricity, saving over 3 million yuan and operating at an impressive 88% efficiency, marking a significant step toward sustainable industrial energy management.

Benefits

Est. Total Discharge: 6 Million kWh

Est. Daily Cost Savings: > $136.50

Cumulative Savings: > $4.1 Million

System Efficiency: 88%

Annual Carbon Reduction: 3,240 tons

Zimbabwe Microgrid Project

Scale

Phase 1: **12**MWp Solar PV + **3**MW / **6**MWh ESS

Phase 2: **9**MW / **18**MWh ESS

Application Scenario

Integrated Solar PV + Energy Storage + Diesel Generator (Microgrid)

System Configuration

- 12MWp Solar PV Modules
- 2 Customized Energy Storage Battery Containers (3.096MWh total capacity)

Project Overview

The mine previously relied solely on 18 diesel generators with a high energy cost of $0.44/kWh, exacerbated by rising fuel costs and logistics/labor expenses. Grid power ($0.14/kWh) offered lower rates but unreliable supply.

The project deployed a smart microgrid integrating solar PV, battery storage, diesel backup, and grid connectivity, prioritizing solar energy for daytime use with excess stored for nighttime/inclement weather while retaining diesel as backup.

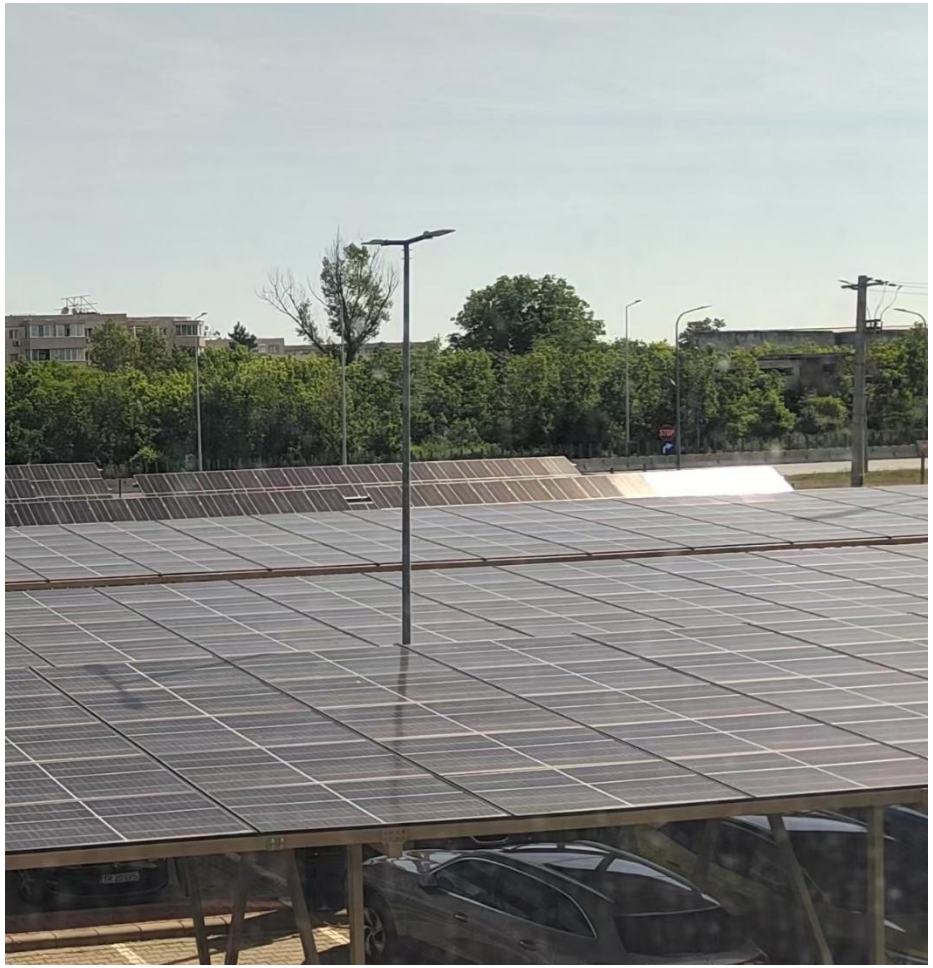
Benefits

Est. Daily Electricity Savings 80,000 kWh

Est. Annual Cost Savings $3 million

Est. Cost Recovery Period <28 Months

Romania Photovoltaic + Energy Storage+ Power Grid Project



Project Overview

The energy storage system is primarily used to participate in grid frequency regulation and enhance grid stability.

It also stores excess power generated by photovoltaics, providing power to the loads during peak demand or when generation is insufficient.

This improves energy utilization efficiency and reduces dependence on the traditional power grid.

Scale

10MW / **20**MWh

System Configuration

3.85 MWh battery energy storage system containers * 5

Germany Photovoltaic + Energy Storage Project

Project Overview

This integrated system combines photovoltaics (PV), energy storage (ESS), and the grid to maximize energy efficiency.

During sunlight, PV powers loads and charges ESS; at night or during low sunlight, ESS and PV jointly supply power until ESS SOC drops below 15%. The grid recharges ESS if SOC falls below 80%, ensuring reliable and cost-effective energy management.

System Configuration

20 kWp PV

258 kWh Star Series Energy Storage Cabinet

Benefits

Daylight powers loads, excess charges storage.
Low sunlight uses both solar and storage.
Grid supplements storage < 80% SOC at night.

China Energy Storage Project

Project Overview

Wenergy partnered with Hunan Haili Lithium Battery Technology to implement an energy storage project in Changsha High-Tech Development Zone.

Operating on a peak shaving and load shifting model, the system ensures reliable power for Haili's production. Completed in just 20 days, the project highlights Wenergy's commitment to efficient and sustainable energy solutions.

Scale

1.44MW / **3.096**MWh

System Configuration

- **12*258**kWh ESS Cabinet Connected to 10/0.4kV-2500kVA Transformer

Benefits

Est. Total Discharge: 998.998 MWh

System Efficiency: 88%

Application Cases

Zambia | Africa
Scenario: Solar-Storage-Diesel Off-Grid Operation
Scale: 3.45MW/7.7MWh

Netherlands | Europe
Scenario: Backup Power Supply, Park Energy Storage
Scale: 160*258kWh (Total 41.3MWh)

United Kingdom | Europe
Scenario: Commercial and Industrial Energy Storage

Romania | Europe
Scenario: Grid-side and Commercial & Industrial ESS
Scale: 10MW/20MWh

Bulgaria | Europe
Scenario:Grid-side Peak Shaving
Scale: 26MW/52MWh

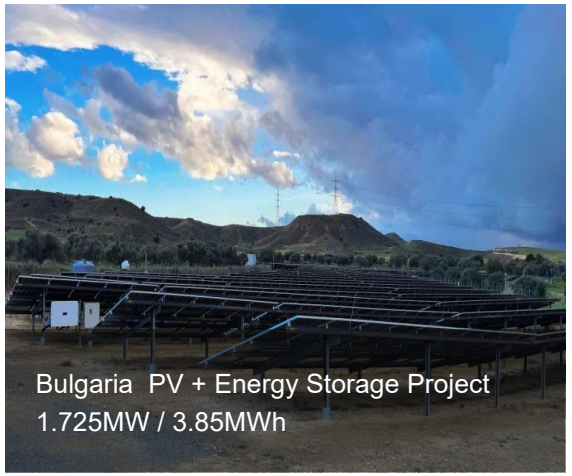
Philippines | Asia
Scenario: Commercial & Industrial Energy Storage
Scale: 16*258kWh (4.13MWh)

China | Asia
Scenario: Large-scale PV Power Plant with Storage
Scale: 6MW/12MWh

China | Asia
Scenario: Incremental Distribution Network Energy Storage
Scale: 5.17MW/10.32MWh


Germany S&P C&I ESS Project
1.81MWh


Netherlands BH Project
20MW / 41.28MWh


Bulgaria PV + Energy Storage Project
1.725MW / 3.85MWh


Hebei State-Owned Special Steel Company Energy Storage Project
120MW / 240MWh


Qingyuan Metal Manufacturing Company Energy Storage Project
2.4MW / 5.16MWh


Foshan Geometric Ceramics Energy Storage Project
1.92MW / 4.128MWh


Taiyuan Water Treatment Energy Storage Project
0.88MW / 1.948MWh


Shanghai Zhujing Waterfront Park Optical Storage and Charging Intelligent Microgrid Project
18.7kWp PV/30kWh ESS/7kW EVSE*2

THANKS

Telephone

+86-731 **8256 6160** (CHN) +65 **9622 5139** (SGP) +1 **949 678 2338** (USA)

WhatsApp

+86 **181 7589 6293**

Wenergy Technologies Pte. Ltd.

ADD:

CHN - 25th Floor, North Tower, Jinmao Plaza, Yuelu District, Changsha City, Hunan Province, China

SGP - No. 18 Boon Lay Way #05-145, TradeHub 21 Singapore 609966

USA - 5900 Balcones Drive Suite 100 Austin TX, 78731 USA

E-mail: export@wenergypro.com

https://www.wenergystorage.com