SINOPAK FARICH GROUP

Only The Best, Leading The Green Future

Energy Storage Solutions

Global Project Cases

Safety Design

Product Brochure

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Company Profile

Sinopak Farich Group, headquartered in Xiamen, China, is a prominent entity engaged in trading, mining, and Energy Storage System (ESS) manufacturing. The company is dedicated to fostering a collaborative workforce, ensuring shareholder confidence, and achieving customer satisfaction, thereby establishing itself as a trusted partner in the energy storage industry.

Manufacturing Capacity

- Three manufacturing facilities in Xiamen, Zhangzhou, and Longyan
- 100,000 m² total manufacturing space
- Annual capacity exceeding 5 GWh

R&D Centers

- Strategically located in Xiamen, Shenzhen, Xian, Hefei, and Hangzhou
- 180+ R&D staff
- Continuous innovation in energy storage technology

Global Presence

- Operations across five continents
- Over 70 countries worldwide
- Investment capital exceeding 120 million yuan

Company Values

- Collaborative Workforce
- Shareholder Confidence
- Customer Satisfaction

Key Company Data

25 Years

Battery Industry Experience

900+ MWh

Energy Storage Products/Solutions Delivered

600+

Full-time Employees

3+5+1

Manufacturing Base / R&D Center / Sales Center

6 GWh

Annual Capacity

180+

R&D Staff

Certifications

Sinopak Farich Group adheres to stringent international standards, holding various certifications that underscore its commitment to quality, environmental responsibility, and social accountability.

IEC

International Electrotechnical Commission - Ensures products meet international safety and performance standards

UL

Underwriters Laboratories - Verifies product safety and performance for North American markets

ROHS

Restriction of Hazardous Substances - Ensures products products comply with EU regulations for environmentally friendly design

SA 8000

Social Accountability 8000 - Demonstrates commitment to ethical labor practices and social responsibility

ISO 14001

Environmental Management System - Shows dedication to reducing environmental impact through operational control

ISO 9001:2015

Quality Management System - Ensures consistent quality of products and services

Core Advantages - Safety Design

Our products incorporate a multi-layered safety protection system, ensuring reliability from the cell level to the entire system.

Cell-level Protection

Advanced monitoring and management at the individual cell level to prevent overcharge, over-discharge, and overheating.

Electrical Safety

Robust circuit design and protection mechanisms to handle electrical faults and ensure stable operation.

Thermal Management

Efficient thermal management systems, including active cooling and heat dissipation, to maintain optimal operating temperatures.

Fire Suppression

Integrated fire detection and suppression systems to mitigate fire risks effectively.

Thermal Simulation Analysis

Effective heat management within the system

Core Advantages - Self-Developed BMS

Our self-developed Battery Management System (BMS) offers high precision, reliability, and flexibility tailored for various applications. We provide a range of BMS models, each designed to meet specific operational requirements.

Project / Parameter	M-BMS	C-BMS	HVM	A-BMS
Rated Operating Voltage	DC24V	DC24V	DC 24V	DC24V
Operating Voltage Range	DC18-28V	DC18-28V	DC18-28V	DC9-28V
Rated Power Consumption	2W	2.5W	2W	5W
Cell Monitoring Channel Count	16	-	-	-
Voltage Measurement Range	1.0-5.0V	-	DC200~1500V	-
Voltage Measurement Accuracy	±0.2%	-	± 0.2%	-
Communication Interfaces	CAN	Net, CAN*2, RS485	CAN	Net*2, CAN*6, RS485*4, R5232*3
Communication Baud Rate	250kbps (Max 1Mbps)	MODBUS TCP/IP, MODBUS RTU	250kbps (Max1Mbps)	MODBUSTCP/IP, MODBUS RTU
Balancing Method	Bidirectional Active Balancing	-	-	-
Balancing Current	1A (Max2A)	-	-	-
Remote Upgrade	Support	Support	Support	Support
Temperature Acquisition Channel Count	17	-	-	-
Temperature Measurement Range	-40~120°C	-	-	-
Temperature Measurement Accuracy	±1°C	-	-	-
SOC Measurement Accuracy	-	≤ ±5%	-	-

High precision measurement

Enhanced safety features

Optimized performance

Remote management capabilities

Residential Energy Storage

Stackable residential energy storage systems designed to revolutionize home energy management with reliability, scalability, and compatibility.

High Reliability

Self-developed BMS with multi-layer protection system ensures safe and reliable operation.

Scalable Configuration

Capacity ranges from 5.32 kWh to 212.8 kWh, expandable to meet growing energy needs.

High Compatibility

Compatible with mainstream inverter brands in the market, easy to integrate with existing systems.

Enhanced Safety

Cell-level monitoring and balancing technology extends system lifespan and enhances safety.

Easy Installation

Modular design allows for quick installation and removal, reducing setup time and complexity.

APP Monitoring

Real-time remote monitoring and system upgrades via mobile app for convenient management.

All-in-One Residential Storage System

An integrated residential energy storage solution designed for simplicity and efficiency.

Integrated Design

Compact all-in-one design that simplifies installation and saves valuable space in residential settings.

High Efficiency

Advanced energy conversion technology ensures optimal energy efficiency and reduced energy waste.

Compact Structure

Slimline design that maximizes space utilization while maintaining aesthetic appeal in home environments.

Additional Benefits

- Simple installation process with minimal required space
- Quiet operation with low noise during energy conversion
- Integrated monitoring and management system
- Compatible with standard residential electrical systems

Commercial & Industrial Energy Storage - Indoor

Indoor commercial energy storage cabinets provide backup power, peak shaving, and optimize electricity costs for various indoor environments.

Application Scenarios

Factories

Production lines

Commercial Centers

Retail spaces

Data Centers

IT infrastructure

System Benefits

Backup Power

Peak Shaving

Cost Optimization

Energy Efficiency

Key Features

Modular Design

Flexible configuration to adapt to different power requirements.

High Safety Standards

Multiple protection layers ensuring safe operation.

Long Cycle Life

Extended battery life, reducing operational costs.

Intelligent Temperature Control

Optimal operating temperature for enhanced performance.

Commercial & Industrial Energy Storage - Outdoor

Application Scenarios

Suitable for outdoor harsh environments such as remote areas, construction sites, and outdoor charging stations.

Key Features & Advantages

High IP Protection

High IP protection rating to withstand various weather conditions and harsh outdoor environments.

Integrated Fire System

Integrated fire detection and suppression systems to enhance outdoor safety and prevent fire hazards.

Remote Monitoring

Remote monitoring and management capabilities for convenient operation and maintenance from anywhere.

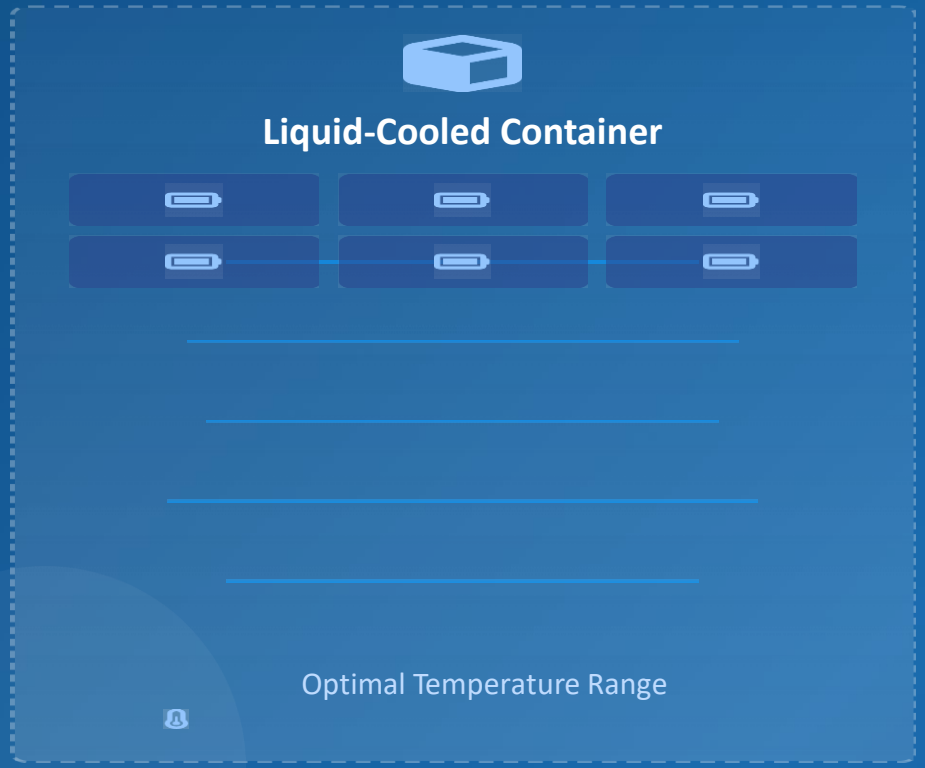
Quick Deployment

Fast deployment design that reduces on-site construction time and speeds up project implementation.

Technical Specifications

- Operating Temperature: -40°C to 85°C
- Water Resistance: IP65
- Wind Load Resistance: 1200 Pa

Utility-Scale Storage - Liquid-Cooled Container



Application Benefits

Ideal for utility-scale applications where space is limited but performance requirements are high, such as grid energy storage and commercial/industrial settings.

Key Features & Benefits

Superior Temperature Management

Liquid cooling technology maintains optimal operating temperature, extending battery life and improving system efficiency.

High Energy Density

Compact design maximizes capacity in limited spaces, enabling greater energy storage in smaller footprints.

Enhanced Safety

Precise liquid cooling system combined with multi-level safety protection effectively prevents thermal runaway.

System Integration

Designed for seamless integration with existing energy infrastructure, simplifying deployment and operation.

Utility-Scale Storage - Air-Cooled Container

Air-cooled container storage systems offer cost-effective solutions with flexible deployment options for various climate conditions.

Key Advantages

- Lower initial investment compared to liquid-cooled systems
- Simplified maintenance with accessible components
- Adaptable to various climate conditions

Ideal Applications

- Regions with moderate temperature ranges
- Facilities with existing air conditioning infrastructure

Cost-Effective

Lower capital expenditure with reduced maintenance costs

Climate Adaptability

Suitable for various temperature conditions

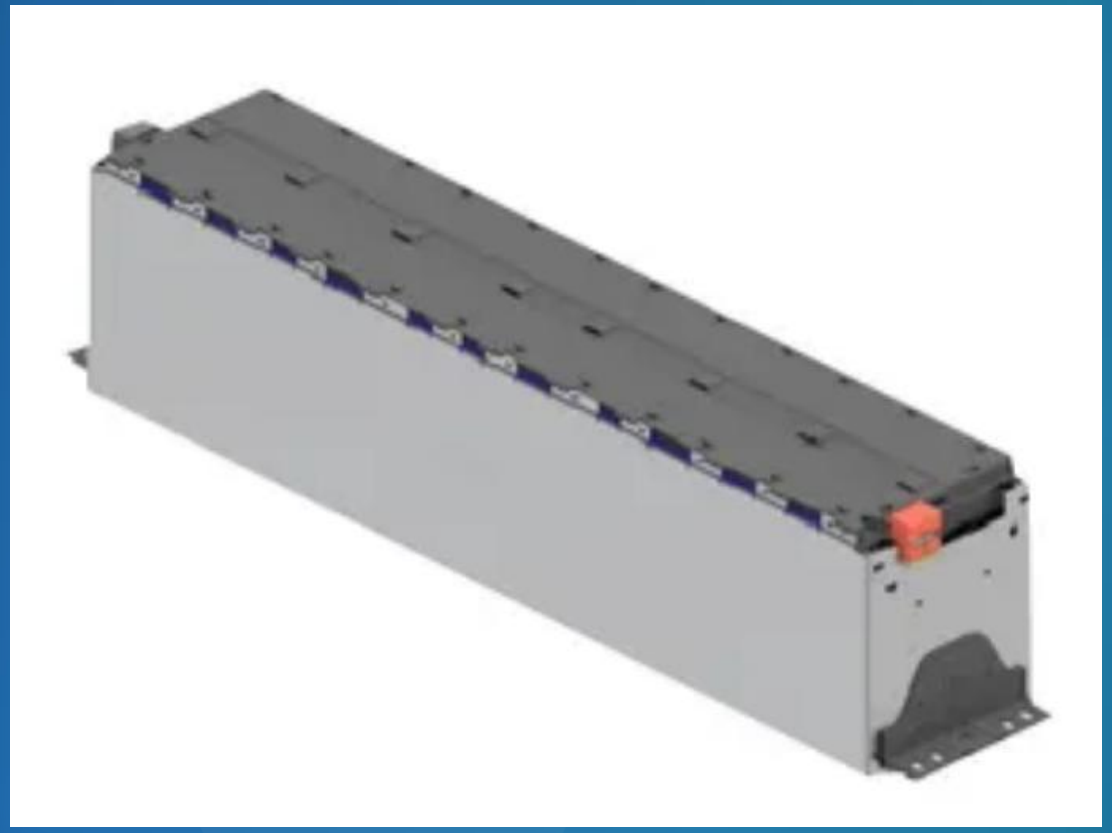
Simple Maintenance

Accessible components for easy maintenance

Reliable Performance

Proven technology with consistent operation

Battery Modules and Other Products



Standard Battery Modules

Versatile Design

Adaptable to various energy storage systems and applications

Safety Features

Integrated protection systems for enhanced reliability

High Efficiency

Optimized energy conversion and minimal power loss

Easy Integration

Simple installation and compatibility with existing systems

Additional Components

Our range extends beyond standard battery modules to include specialized components designed for specific applications in energy storage systems.

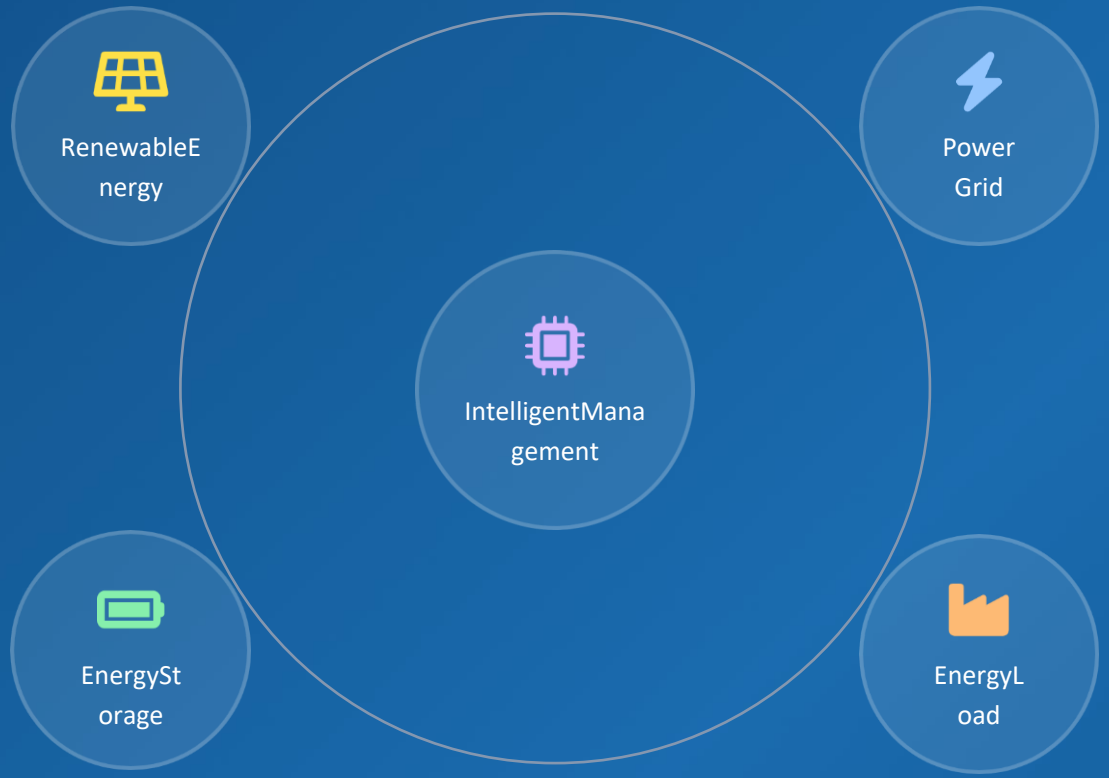
BMS Integration

Thermal Management

Power Electronics

Energy Storage Solutions - Generation/Grid Side

System Architecture



Key Advantages

Smoothing Renewable Energy Output

Absorbs excess energy during high production periods and releases during low production periods, ensuring stable power output.

Grid Frequency & Peak Regulation

Responds rapidly to grid frequency and load changes, providing auxiliary services to maintain stable operation.

Enhanced Grid Elasticity

Serves as backup power during emergencies or grid failures, enhancing grid resilience and reliability.

Optimized Asset Utilization

Improves utilization of existing transmission and distribution equipment, delaying grid upgrade investments.

Energy Storage Solutions - User Side/Microgrid

Applications

Commercial & Industrial Parks

Energy management, demand response and backup power for factories and commercial complexes

PV-Storage Integration

Optimizing solar self-consumption by storing excess energy for night or cloudy days

PV-Storage-Charging

Integrating PV generation, energy storage and EV charging for clean, economical charging

Island Microgrids

Stable power supply for islands with weak or no grid coverage, reducing diesel dependence

Key Benefits

Cost Reduction

Lower electricity costs through peak shaving

Backup Power

Reliable energy during grid failures

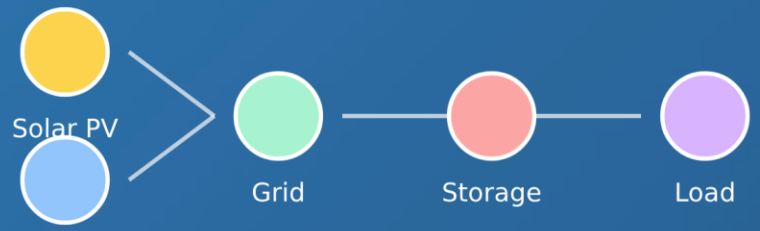
Self-Consumption

Higher renewable energy self-use

Grid Independence

Energy self-sufficiency for critical loads

User-Side/Microgrid System Concept



Global Project Distribution

Global Presence

5+ Continents

70+ Countries

Sinopak Farich Group has established projects worldwide, providing reliable energy storage solutions to customers in diverse regions.

Key Benefits of Global Distribution

- Localized support and maintenance
- Regional expertise and adaptability
- Global supply chain optimization

Flagship Project - Mount Everest

Project Overview

Sinopak Farich Group delivered a robust energy storage solution for the challenging environment of Everest Base Camp, operating at an impressive 5,200 meters above sea level.

Installed Capacity: 559.1 kWh

Application: Critical infrastructure backup power

Key Achievement

The system demonstrates exceptional reliability in one of the world's harshest environments, maintaining high efficiency and operational stability while withstanding extreme altitude conditions.

This project showcases Sinopak Farich Group's ability to deliver reliable energy storage solutions even in the world's most challenging environments.

Technical Highlights

Below Zero

Operates reliably in temperatures well below freezing, ensuring consistent power delivery throughout the year.

High Winds

Survives and thrives in areas with frequent high winds, maintaining structural integrity and operational performance.

Strong Radiation

withstands intense solar radiation in high-altitude environments, minimizing performance degradation.

Low Oxygen

Specialized design for low-oxygen environments at high altitude, ensuring optimal energy conversion efficiency.

Flagship Project - Guyana Microgrid

Project Specifications

Power Output
1MW

Energy Storage
2.15MWh

Technical Highlights

- Designed for Guyana's equatorial low-pressure zone
- Excellent climate adaptability in tropical rainforest environments
- Operates in 90% relative humidity and extreme temperatures

Results & Impact

Economic Benefits

Significant cost reduction compared to traditional diesel solutions

Environmental Impact

Zero emissions, reducing pollution and noise pollution

Integrated Microgrid Solution

Environmental & Social Benefits

- Stabilizes unreliable photovoltaic power from mining operations
- Effectively replaces diesel generators in tropical rainforest environments
- Improves local living conditions through clean energy integration
- Enhances environmental sustainability in one of the world's largest rainforests

Flagship Project - Sweden Frequency Regulation

Project Overview

Located in the arctic regions of Swedish mountains, this commercial frequency regulation project demonstrates our solution's capabilities in extreme cold environments.

Technical Specifications

187.5kW
Power Output

430kWh
Energy Storage

Key Technologies

- Operates effectively in -40°C extreme arctic conditions
- Participates in grid peak shaving and valley filling services
- Active in local grid frequency regulation

Benefits

Cost Reduction

Effective demand-side management to reduce electricity costs

Revenue Generation

Creates additional income sources through grid services

Grid Support

Enhances local grid stability in extreme weather conditions

Sustainability

Clean energy solution for remote arctic regions

Flagship Project - Indonesia Port Shore-Power

Project Overview

Ashore-power system designed for port applications in Indonesia, integrating photovoltaic generation with energy storage to optimize port lighting and operations.

Technical Challenges

- High temperature and humidity in tropical marine environment
- Salt spray corrosion affecting system longevity
- Critical need for reliable power in port operations

Technical Solutions

50kW / 215kWh

Optimized storage capacity for port lighting applications

Self-Consumption

PV energy optimized for port lighting, reducing grid dependence

Corrosion-Resistant

Specialized design for harsh marine environments

Zero Emissions

Clean energy solution with no pollutant emissions

Project Benefits

Cost Reduction

Significant reduction in operating power costs compared to traditional solutions

Energy Resilience

Energy security for critical port operations during grid disruptions

Environmental Protection

Zero pollution emissions, protecting fragile island ecosystems while providing reliable power

PV-Storage-Charging Integration Projects

Sinopak Farich Group has successfully deployed multiple integrated solar-storage-charging projects globally, providing efficient and sustainable energy solutions across various commercial and industrial applications.

Sweden · All-in-One Solar-Storage-Charging Station with Grid Frequency Regulation

Integration Benefits

- Optimizes renewable energy utilization
- Enhances energy storage efficiency
- Improves charging infrastructure

Global Integration Projects

Sichuan China	China · All-in-One Solar-Storage-Charging Project	100kW / 215kWh
Xinjiang China	China · All-in-One Solar-Storage-Charging Project	100kW / 215kWh
Netherlands	Netherlands · Metal Recovery Plant	62.5kW / 215kWh
Zhejiang China	China · Yiwu Commercial Center	250kW / 215kWh
Netherlands	Netherlands · Large Camping Equipment Warehouse	1MW / 2.15MWh

Global Sales Network

Sinopak Farich Group has established a strategic global sales network covering 70+ countries across 5 continents, ensuring efficient service and support to customers worldwide.

North America

Strategic sales centers in key markets providing localized support.

Europe

Regional offices supporting European and Middle Eastern operations.

Asia Pacific

Headquarters in Xiamen, China with production facilities across Asia.

Strategic Partnerships

Local partnerships to provide tailored solutions for specific markets.

Logistics Network

Global supply chain ensuring timely delivery to all markets.

Customer Support

24/7 technical support with local language experts.

Contact Information

Our global sales network covers five continents and over 70 countries

Locations

Head Office
Siming District, Xiamen City, Fujian Province, China

Xiamen Production Line
7-1#, Avenue, Guankou Town, Jimei District, Xiamen City, Fujian Province, China

Zhangzhou Production Line
Zhangzhou Taiwanese Investment Zone, Fujian Province, China

Longyan Production Line
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