Shenzhen SMS Energy Technology Company Ltd

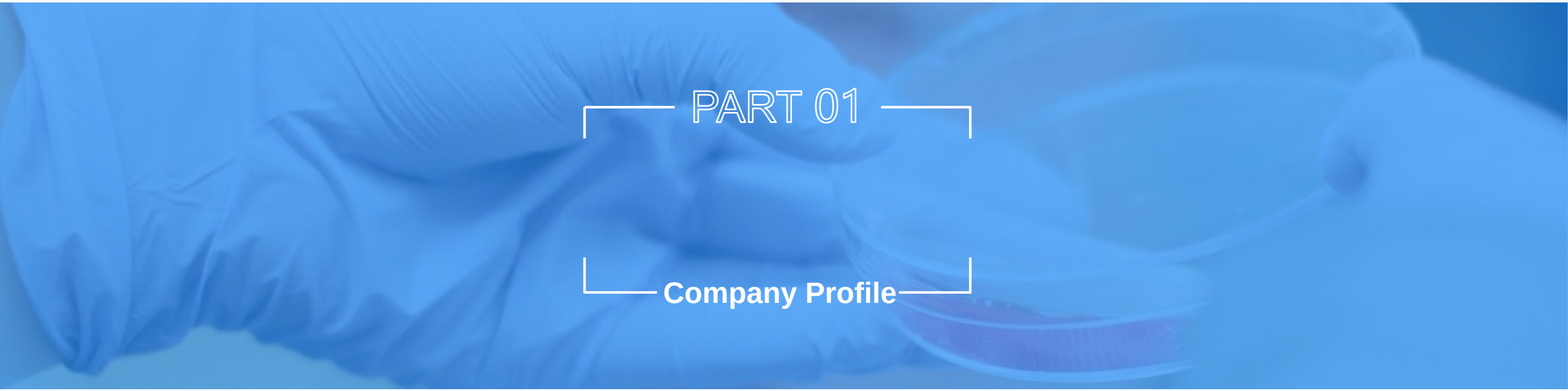
Profesyonel Enerji Depolama Çözümleri v 3.0

Türkiye Yetkili Satıcısı SELİN MÜMESSİLLİK A.Ş

Tanıtım ve Ürün Kataloğu

目录

CONTENTS



PART 01

Company Profile

sms sanhui
Stock code: 002857

Shenzhen Sanhui Energy Technology Co., Ltd.

Zhengzhou Sanhui Electric Co., Ltd. holding subsidiary

Establishment time	Stock code	Energy storage business
1996	002857	2022

Business scope

Energy storage on the power supply side, grid side and user side;

Provide high-quality MW-level energy storage systems, industrial and commercial energy storage systems, household energy storage systems and overall solutions;

It is a technological innovation enterprise integrating R&D, manufacturing, sales and service.

Honors and Recognition

Recognized as a high-tech enterprise in 1999

In 2008, it passed the new high-tech enterprise certification

Henan Province Innovation Pilot Enterprise

Henan Provincial Enterprise Technology Center

Zhengzhou Engineering Technology Research Center

Academician workstation

An academician workstation of Zhengzhou Sanhui Electric Co., Ltd.

has been established with Academician Zhang Zhonghua as the leader.

||| Company size

SMS Sanhui
Stock Code: 002857

Shenzhen R&D Headquarters

Area 1,500m²

R&D management staff: 60+

Dongguan energy storage factory

Area 15,000m²

Products MW-level energy storage, industrial and commercial energy storage, household energy storage

Production capacity 3GWh

Production technicians 80+

||| Development History

SMS Sanhui
Stock code: 002857

2024.5
Signed
Shanxi's first 50MWh energy
storage frequency regulation project

2024.3
Signed
the first grid-connected energy
storage project in Tibet's Ritu 24MWh

2024.3
Signed
the Ningxia Jingyuan 200MWh first
shared energy storage project

2023.12
Signed
Saudi Arabia's first
overseas 2MWh commercial storage project

2023.12
Jointly established the Energy Storage
Engineering Technology
Center with Northeast Electric Power University

2023.9
Established Tibet Kaito Energy
Storage Technology
Co., Ltd. in a joint venture with Tibet Kaito Group

2023.7
Signed the
first new energy storage project
of Ruoqiang 20MWh and the first industrial
and commercial energy
storage project of Xiaodong 300MWh

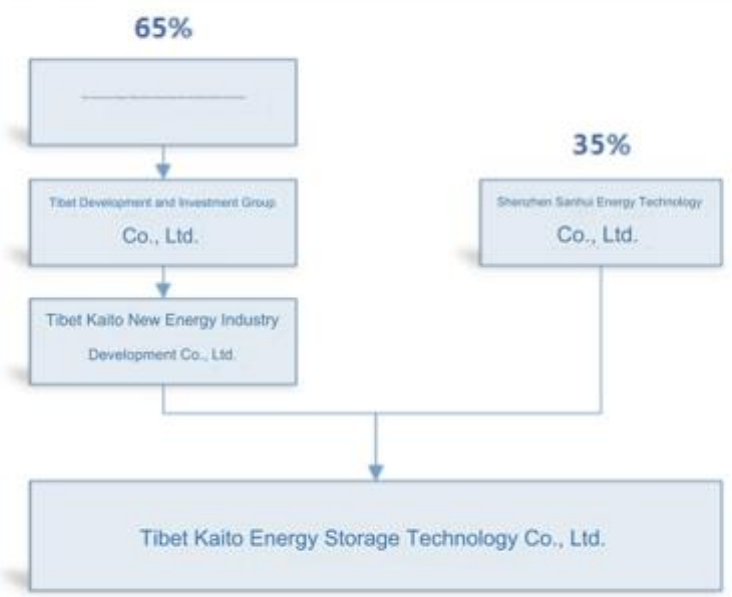
2023.6
China Power Construction East China Institute
Signed a strategic cooperation framework agreement to
develop the domestic large-scale storage market

2023.4
Obtain
a full range of professional
test reports for battery modules,
battery clusters, BMS, PCS, and EMS

2023.4
Construction
of 3GWh energy storage
plant with an area of 15,000m²

2023.3
Sanhui Electric
completes acquisition and establishes joint venture
Sanhui Energy

||| Development History



group	(MW)	Solar	Wind power (MW)	Energy storage scale (MW)	Energy (MWh)
Tibet Development Investment 900				180	720
SDIC Electric Power	525	150		105	420
China Energy Engineering	300	100		60	240
Corporation	100		300	20	80
Power Construction	295	50	50	69	276
Huadian	350			70	280
State Power Investment Corporation	200			40	160
CGN	125	50		25	100
Datang			100		
Huaneng	100			20	80
China Power Construction	100			20	80
Zhejiang Energy Group	50			10	40
China National Energy Group 30				6	24
Jingneng			50		
Total	3075	350	500	625	2500

Tibet Kaito New Energy Industry Development Co., Ltd. is positioned as a comprehensive energy service provider for plateau mining and a three-centralized execution platform

Shenzhen R&D Headquarters

sms三晖
股票代码：002857

Dongguan 3GWh Energy Storage Factory

sms三晖
股票代码：002857

Honors

sms三晖
股票代码：002857

认证报告 CB CE BIS UN38.3 MSDS Material Safety Data Sheet

ISO management system certification

sms三晖 股票代码：002857

ISO9001质量管理体系

ISO14001环境管理体系

ISO45001职业健康安全管理体系

Energy storage full range product test report

sms三晖 股票代码：002857

锂离子电池模组（风冷）

锂离子电池模组（液冷）

锂离子电池簇（风冷）

锂离子电池簇（液冷）

PCS储能变流器

BMS电池管理系统

EMS能量管理系统

AAA credit enterprise

sms三晖
股票代码：002857

AAA级
诚信供应商

AAA级
诚信经营示范单位

AAA级
信用企业

AAA级
质量服务诚信单位

AAA级
重服务守信用企业

AAA级
重合同守信用企业

AAA级
重质量守信用企业

AAA级
资信企业

中国诚信经理人

中国诚信企业家

Patent Certificate & Computer Software Copyright Registration Certificate

sms三晖 股票代码：002857

计算机软件著作权登记证书

发明专利证书

实用新型专利证书

外观专利证书

PART 02

Business Sector

||| Business Scope

sms sanhui
Stock code: 002857

microgrid

Multi-energy complementation in areas without electricity or with weak electricity

· Self-use

Household energy storage

· Dispersed power demand and resource distribution

• Improve the reliability of household electricity

Industrial and commercial enterprises, parks

• Demand management

•Peak and valley arbitrage

·Dynamic expansion

·Demand side response

Shared energy storage power station

·Power spot trading, capacity leasing

· Capacity compensation, ancillary services

thermal power plant

Improve the auxiliary service regulation performance of the unit

Reduce unit wear

New energy power station

Smooth out output fluctuations and improve grid stability

Track power generation plans to alleviate wind and solar power abandonment

PART 03

Energy Storage

Overall solution service provider

sms sanhui
Stock code: 002857

energy storage battery

PCS

BMS

EMS

System integration

energy management

Shenzhen Sanhui Energy Technology Co., Ltd. has formed the R&D and manufacturing capabilities of battery packs, BMS, EMS and integrated energy storage products, as well as the system integration and intelligent operation and maintenance capabilities of industrial and commercial energy storage power stations, photovoltaic charging stations, and new energy storage power stations. It can provide users with complete energy storage power station overall solutions and one-stop energy management services.

||| Core Competitiveness

sms sanhui
Stock code: 002857

High security

- Improve the sensitivity of battery cell fault identification by establishing battery cell temperature field and voltage field modeling, optimizing BMS control, and monitoring battery cell safety data in real time;
- PACK online monitoring system, 30 minutes in advance fault warning (better than existing warning means);
- Optimize fire protection design and adopt PACK-level immersion fire protection + box spraying.

low cost

- High energy density design, single-chamber capacity ≥6.7MWh, reducing the project footprint by more than 23%;
- The system is flexible in configuration and compatible with 314Ah batteries, which improves energy density and adopts CTS system architecture to reduce system costs.

High efficiency

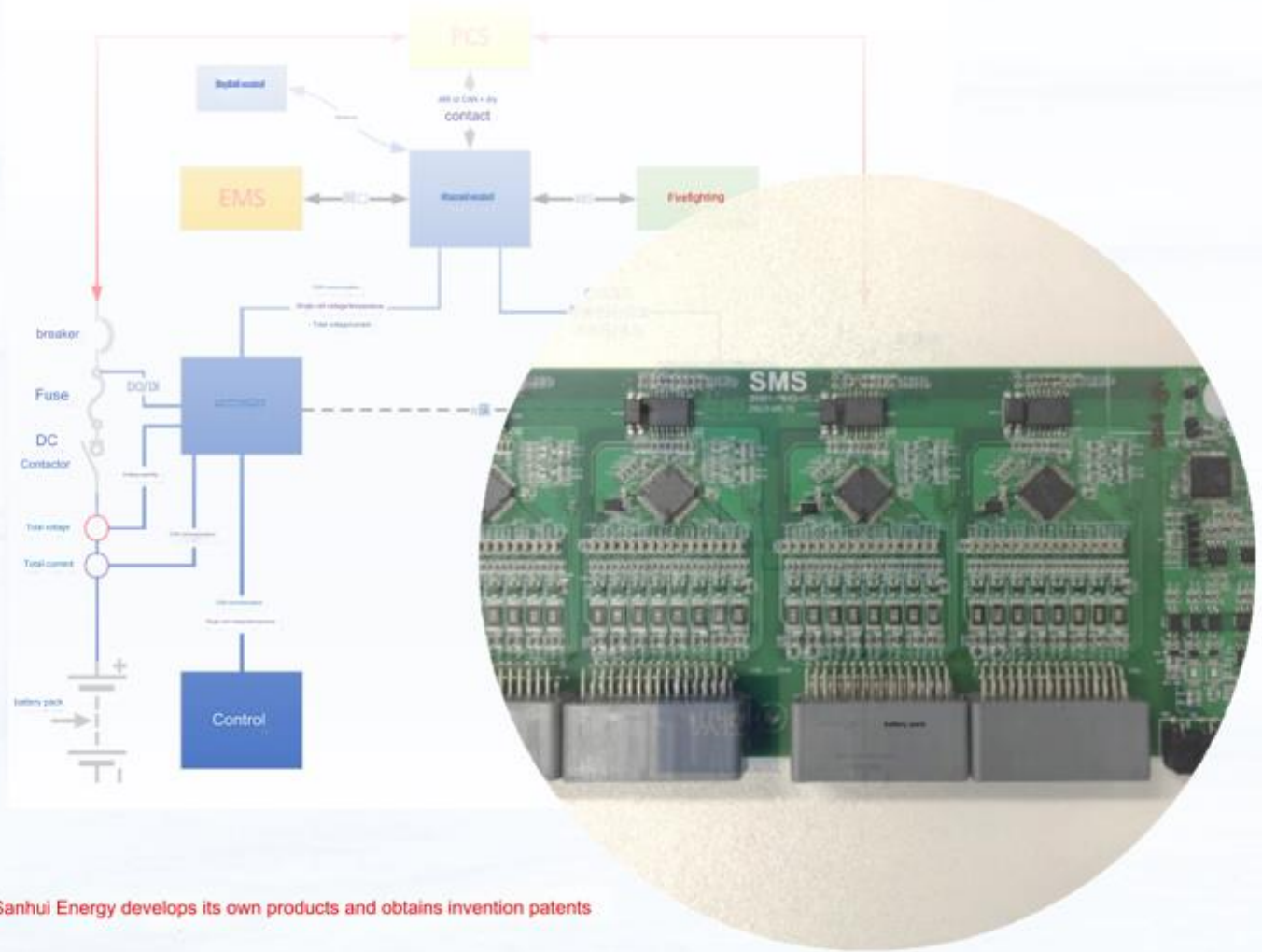
- Deep learning algorithm reduces false alarms, improves control accuracy, and increases the annual availability of the entire station;
- Optimize power control, suppress inter-cluster circulation, and improve system availability by at least 5%;
- Optimize system control and reduce energy consumption within the station by 30%.

Long life

- Using deep neural network calculations to improve SOX accuracy by more than 70%;
- Deeply optimize the PID algorithm to ensure that the temperature difference of the battery cells in the entire cabin is less than 3°C.

|||BMS Battery Management System

SMS Sanhui
Stock code: 002857



Sanhui Energy develops its own products and obtains invention patents

System features

- Internal high-speed CAN-FD interface
- Compatible design, can expand active equalization module
- Cluster-level cell balancing effectively improves system capacity
- Interaction between BMS and temperature control system, intelligent thermal control management at cabin level
- Millisecond-level voltage and current sampling to improve system alarm protection speed
- VOC and CO gas detection integrated in PACK, PACK-level fire protection

BMS Battery Management System

Energy storage battery management system data analysis method, device, electronic equipment and medium

Battery charging and discharging automatic adjustment method, device and intelligent outdoor power supply system

|||EMS Energy Management System

SMS Sanhui
Stock code: 002857

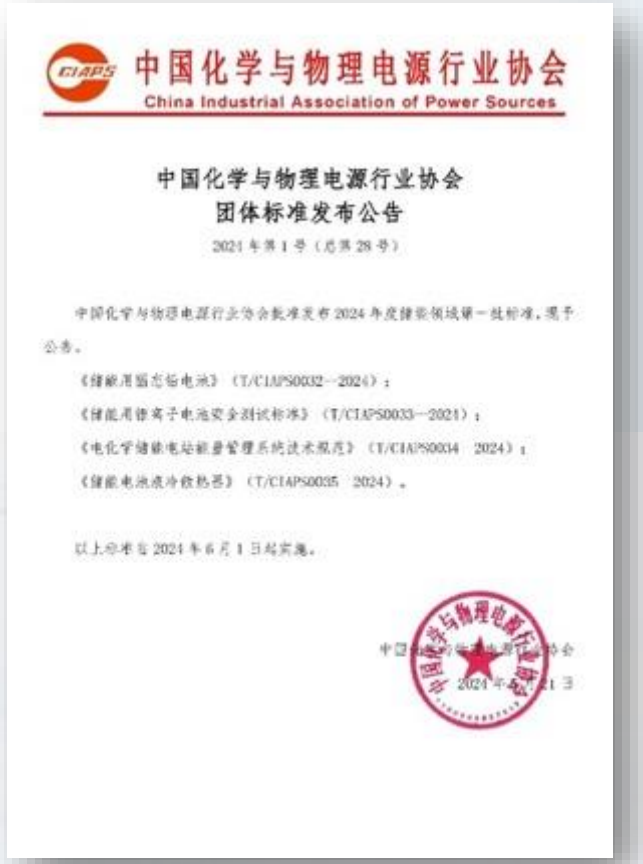
System features

- Peak reduction and valley filling
- Transformer maximum demand management
- Optimizing Industrial and Commercial Electricity Bills
- Can participate in the customer's virtual power plant business
- Seamless integration of integrated energy management systems
- Reactive power compensation and APF improve power quality
- Can participate in demand-side response and power dispatching, frequency regulation and peak regulation

ancillary services

EMS Energy Management System

sms三晖 股票代码：002857



中国化学与物理电源行业协会
China Industrial Association of Power Sources

中国化学与物理电源行业协会
团体标准发布公告

2021年第1号（总第28号）

中国化学与物理电源行业协会批准发布2024年度储能领域第一批标准，现予公告。

《储能用固态钠电池》（T/CIAPS0032—2024）；

《储能用锂离子电池安全测试标准》（T/CIAPS0033—2021）；

《电化学储能电站能量管理系统技术规范》（T/CIAPS0034 2024）；

《储能电池液冷散热器》（T/CIAPS0035 2024）。

以上标准自2024年6月1日起实施。

ICS 29.240.01
F 20/29

团 体 标 准

T/CIAPS 0034—2023

电化学储能电站能量管理系统技术规范

Technical Specification for Energy Management System of Electrochemical Energy Storage Power Station

2024-05-10 发布　　2024-06-01 实施

中国化学与物理电源行业协会　发布

T/CIAPS 0034—2023

前 言

The "Technical Specifications for Energy Management Systems of Electrochemical Energy Storage Power Stations" compiled with the participation of SMS has been approved and issued by the China Chemical and Physical Power Sources Industry Association and will be implemented from June 1, 2024.

Simple

Simple

Simple structure

Easy maintenance

intelligent

Smart

Smart energy storage

Intelligent operation

Energy saving

Save

Safety

Safe

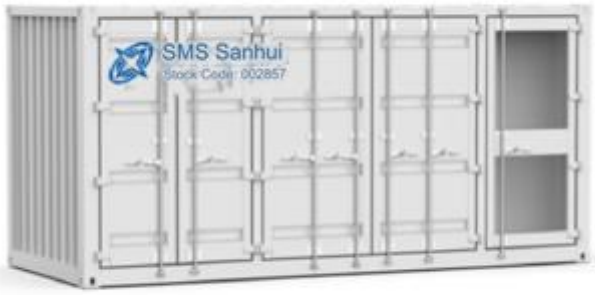
Safe and reliable

Stable operation

Flexible

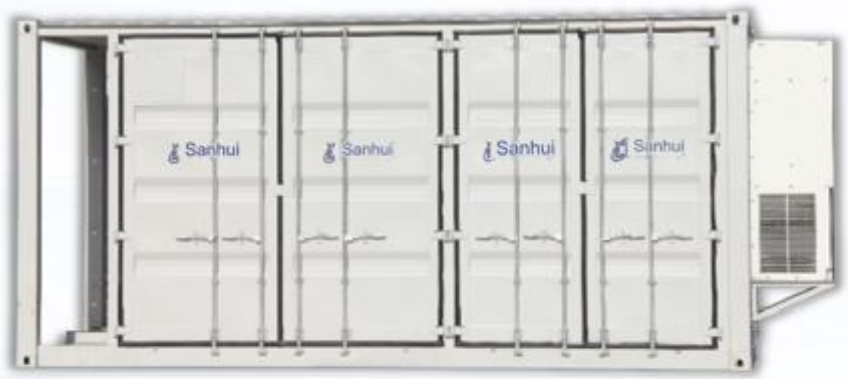
Soft

Flexible energy storage



sms sanhui
Stock code: 002857

S5-Air-cooled container energy storage system



Features

- high energy density
- Various maintenance methods
- Optimize PID algorithm
- Large capacity battery
- Real-time monitoring of battery cells
- Multiple fire protection

Rated capacity(kWh)	7311.36
battery cell	Square 280Ah
system grouping	PACK：1P24S； Battery cluster: 17S; Battery compartment: 20P;
Rated voltage(V)	1305.6
Working voltage(V)	1142.4~1346.4
System rated power (kW)	3655
cycle life	≥6000 times (80%DOD, 0.5C, @25℃)
DC side system efficiency	≥93%（0.5C/0.5C，@25℃）
Working temperature(℃)	Charging: 0~55; Discharging: -30~55
Container type	40-foot container high cabinet
Fire protection system	Heptafluoropropane/Perfluorohexanone
balanced approach	Active balancing/passive balancing
altitude	≤3000m (if it is greater than 3000m, the rating should be reduced)
Application scenarios	Peak shaving and valley filling, emergency power supply, new energy consumption, power support, peak and frequency regulation

S5-Liquid Cooling Container Energy Storage System

Features

- high energy density
- Early failure warning
- Optimize PID algorithm
- High SOX calculations
- Real-time monitoring of battery cells
- Multiple fire protection

Rated capacity(kWh)	3350	5015
battery cell	Square case 280Ah	Square case 314Ah
system grouping	PACK：1P52S Battery Cluster: 8S Battery compartment: 9P	PACK：1P104S Battery Cluster: 4S Battery compartment: 12P
Rated voltage(V)	1331.2	
Working voltage(V)	1123.2～1497.6	
System rated power (kW)	1670	2500
cycle life	≥6000 times (80%DOD, 0.5C, @25°C)	
DC side system efficiency	≥93%（0.5C/0.5C，@25℃）	
Working temperature(℃)	Charging: 0~55; Discharging: -30~55	
Container type	20-foot container high cabinet	
Fire protection system	Perfluorohexanone (PACK grade fire protection)	
balanced approach	Active balancing/passive balancing	
altitude	<3000m (if it is greater than 3000m, the rating should be reduced)	
Application scenarios	Peak shaving and valley filling, emergency power supply, new energy consumption, power support, peak and frequency regulation	

SMS Sanhui
Stock code: 002857

S5-100kW/200kWh distributed outdoor cabinet (air cooling)

Features

All in one design

Early failure warning

Optimize PID algorithm

High SOX calculations

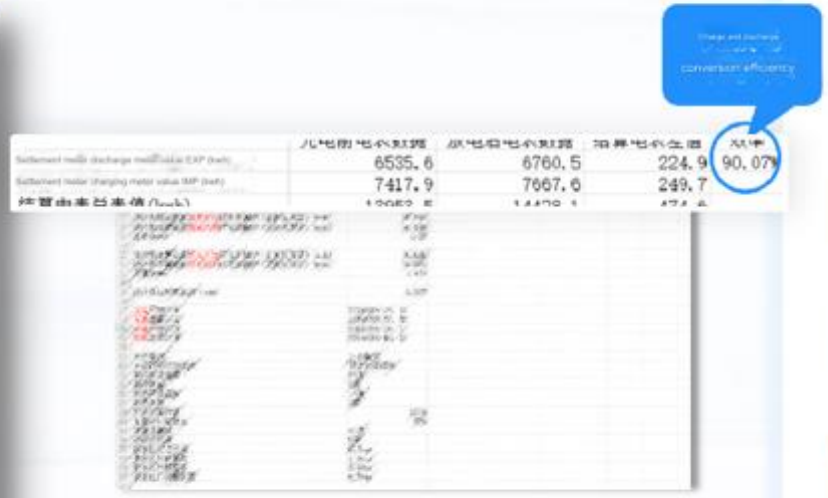
Real-time monitoring of battery cells

Multiple fire protection

AC parameters			
Grid voltage	400V，3W+PE	Rated AC power	100kW
Rated AC current	152A	Rated grid frequency	50/60Hz
Power factor adjustable range	-1~+1	THDi (rated power)	< 3%
DC parameters			
Battery Type	LFP	Battery power	200kWh
DC rated voltage	716V	DC voltage range	604V~818V
Rated charge and discharge rate	0.5CP	DC maximum current	166A
System parameters			
Protection level	IP54	Fire protection system	Gas fire extinguishing system
Isolation method	non-isolated	Anti-corrosion level	C4
weight	2100kg	Communication interface	RS485、CAN、LAN
Battery temperature control method	Industrial air conditioner	Dimensions (width*height*depth)	1150*2450*1275mm
working temperature	-20℃ ~ 70℃	System life	6000 times@25℃, 0.5CP
Allowable humidity range	0~95%(no condensation)	altitude	≤3000m (>3000m can be customized)

SMS Sanhui
Stock code: 002857

S5-125kW/230kWh distributed outdoor cabinet (liquid cooling)



Features

All in one design

Early failure warning

Optimize PID algorithm

High SOX calculations

Real-time monitoring of battery cells

Multiple fire protection

AC parameters			
Grid voltage	380V，3W+PE	Rated AC power	125kW
Rated AC current	189.9A	Rated grid frequency	50/60Hz
Power factor adjustable range	-1~+1	THDi (rated power)	< 3%
DC parameters			
Battery Type	LFP	Battery power	232.96kWh
DC rated voltage	832V	DC voltage range	650V~949V
Rated charge and discharge rate	0.5CP	DC maximum current	216A
System parameters			
Protection level	IP54	Fire protection system	Aerosol/Perfluorohexanone
Isolation method	non-isolated	Anti-corrosion level	C3
weight	2570kg±50KG	Communication interface	RS485、CAN、LAN
Battery temperature control method	liquid cooling	Dimensions (width*height*depth)	1450*2250*1450mm
working temperature	-35℃ ~ 55℃	System life	6000 times@25℃, 0.5CP
Allowable humidity range	5~95%(no condensation)	altitude	≤3000m (>3000m can be customized)

Parallel Network Solution

Sanhui Energy's distributed energy storage products can be deployed on demand to meet the needs of different capacity applications, and achieve different multiple capacity configurations of 100kW/200kWh and 100kW/215kWh.

Rated AC voltage	400V，3W+PE	Rated AC current	10*152A
Rated AC power	100~1000kW	Battery cabinet input number	≤10 channels
surge protection	have	Short circuit protection	have
Temperature control method	Air cooling/Liquid cooling	Communication interface	RS485、CAN、LAN
operating temperature	-20℃ ~ 70℃	Protection level	IP54
Allowable humidity range	0~95%(no condensation)	operating altitude	≤3000m (>3000m can be customized)

The cloud management platform for industrial and commercial energy storage realizes the management of battery cell status monitoring, core component condition monitoring such as BMS and PCS, and supporting equipment such as air conditioning, fire protection, lighting, and video surveillance.

As well as a complete after-sales service management process, it supports real-time collection and analysis of all data, perfectly solving the after-sales maintenance concerns of industrial and commercial energy storage.

Hongming Station

Qiaotou Huawei Station

Dalang Zhonghong Station

Zhongteng Zhuoxuan Station

Jianbi Station

Aurisheng Station

Changan Chensong Station

Changan Xinmin Station

3 years

payback period

>30%

Contract Energy Management Model IRR

PART 04

Household Energy Storage

||| Rack Mount LiFePO4 Battery

sms sanhui
Stock code: 002857

Light weight and small size
Light weight, Small size

Cycle life up to 6000 times
Long cycle life, using high-quality LiFePO4 Cells, the cycle life is as high as 6000 times

Intelligent battery management system
Intelligent battery management system

Support multiple communication protocols
Support a variety of communication protocols, support RS485, RS232, CAN etc

Compatible with a variety of inverters
Compatible with a variety of inverters

Excellent security features
In the extreme performance safety test, the battery will not catch fire, explode, leak, and be safer to use.

Product model	SMS-51100R	SMS-51200R
Cell type	LiFePO4	LiFePO4
Regular capacity	100Ah	200Ah
Nominal voltage	51.2V	51.2V
Charge cutoff voltage	58V±1.0V,0.2C5A	58V±1.0V,0.2C5A
Discharge cutoff voltage	40V±2.0V,0.2C5A	40V±2.0V,0.2C5A
Maximum charging current	50A	100A
Maximum continuous discharge current	100A	100A
Overcurrent protection value	150A±15A/100ms	150A±15A/100ms
protection function	OCVP/ODVP/OCP/SCP	OCVP/ODVP/OCP/SCP
Communication method	RS485/CAN	RS485/CAN
working temperature	Charging : 0℃~45℃ Discharging : -10℃~60℃	Charging : 0℃~45℃ Discharging : -10℃~60℃
Charging interface terminal	2P-Terminalblack2P	2P-Terminalblack2P
Discharge interface terminal	2P-TerminalRED2P	2P-TerminalRED2P
switch terminal	Self-lockingswitch	Switch
Product size	442mm*420mm*133mm	442mm*680mm*133mm
Product weight	50kg	96kg

|||Wall Mount LiFePO4 Battery

sms sanhui
Stock code: 002857

Light weight, Small size

Cycle life up to 6000 times
Long cycle life, using high-quality LiFePO4 Cells, the cycle life is as high as 6000 times

Intelligent battery management system Intelligent battery management system

Support a variety of communication protocols, support RS485, RS232, CAN etc

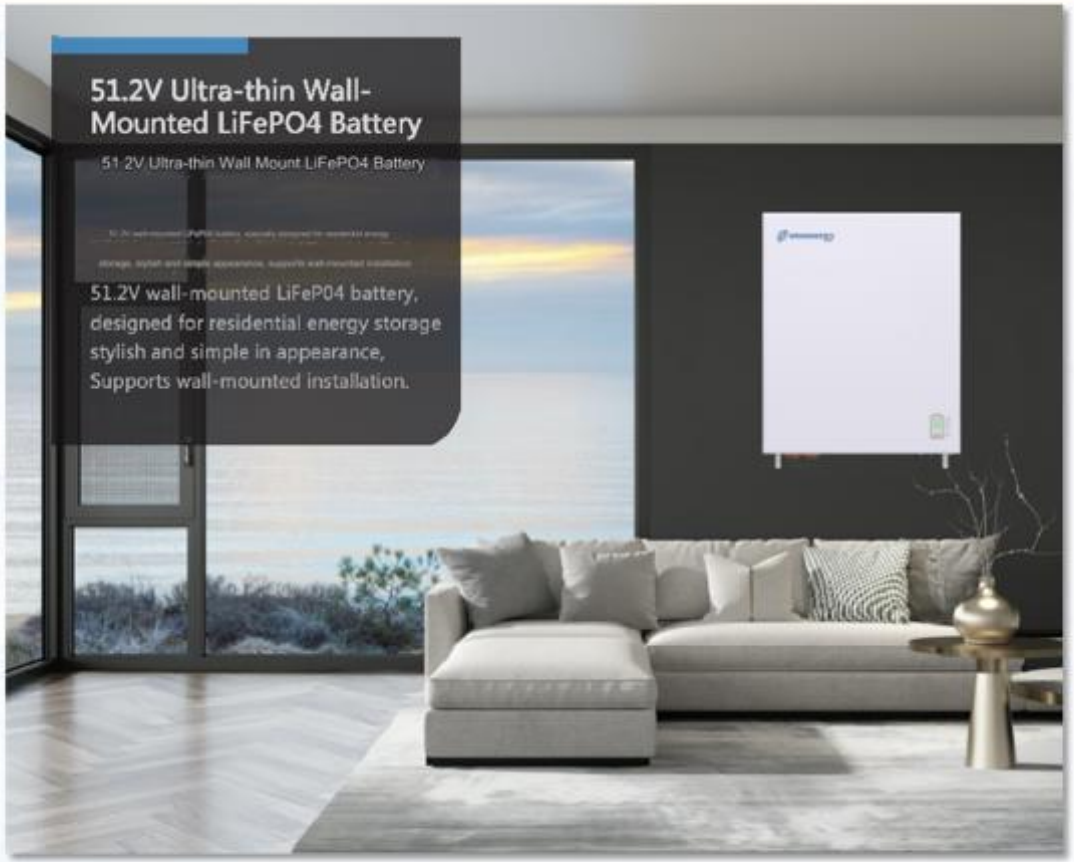
Compatible with a variety of inverters
Compatible with a variety of inverters

Excellent security features
In the extreme performance safety test, the battery will not catch fire, explode, leak, and be safer to use.

Product model	SMS-51100W	SMS-51150W	SMS-51200W
Nominal voltage	48V/51.2V		
Regular capacity	100Ah	150Ah	200Ah
energy	4.8KWh/5.12Wh	7.2KWh/7.68KWh	9.6KWh/10.24KWh
Charge cutoff voltage	54.75V/58.4V		
Discharge cutoff voltage	39.0V/42.0V		
Continuous discharge current	50A	50A	50A
Maximum charging current	100A	100A	100A
Continuous discharge current	100A	100A	100A
Maximum discharge current	100A	100A	100A
Peak discharge current	150A	150A	150A
protection function	OVP/UVP/OCP/OTP/UTP/SCP etc.		
Communication method	RS485/CAN		
working temperature	Charge: 0℃~45℃ Discharge: - 15℃~60℃		
storage temperature	0℃~45℃ @ 60±20% Relative Humidity		
Protection level	IP21		
Product size (L*W*H)	500*520*145mm 600*480*165mm	670*540*145mm 790*510*165mm	830*500*145mm 920*550*165mm
Product weight	45kg/51kg	72kg/84kg	85kg/108kg

|||Ultra-thin wall-mounted LiFePO4 battery

sms sanhui
Stock code: 002857



Light weight,
Small size

Support a variety of communication protocols, support RS485, RS232, CAN etc

Cycle life up to 6000 times
Long cycle life, using high-quality LiFePO4 Cells, the cycle life is as high as 6000 times

Compatible with a variety of inverters
Compatible with a variety of inverters

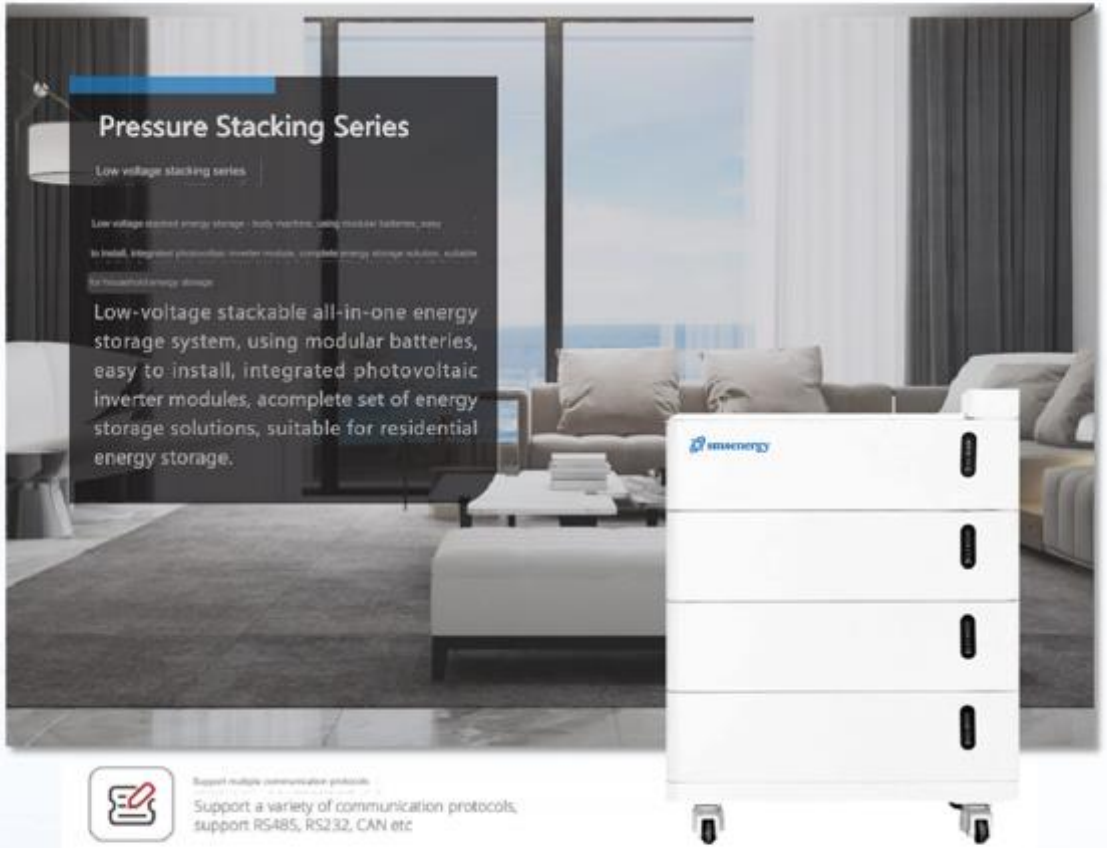
Intelligent battery management system
Intelligent battery management system

Excellent security features
In the extreme performance safety test, the battery will not catch fire, explode, leak, and be safer to use.

Product model	SMS-STWM5120B	SMS-STWM10240
Nominal voltage	51.2v	51.2v
Regular capacity	100Ah	200Ah
energy	5.12kwh	10.24kwh
cycle life	≥6,000 cycles to 85% DOD	≥6,000 cycles to 85% DOD
Charging efficiency	From 100% to 0.2C	From 100% to 0.2C
Discharge efficiency	From 96 to 99% to 1C	From 96 to 99% to 1C
Charging voltage	58.4Vdc	58.4Vdc
float charge voltage	58Vdc	58Vdc
Charging mode	0.2C to 29.2V, then 29.2V charging current to 0.02C (CC/CV)	0.2C to 29.2V, then 29.2V charging current to 0.02C (CC/CV)
Charging current	50	100
Maximum charging current	80	160
Charge cutoff voltage	58.4	58.4
continuous current	100	200
Discharge cutoff voltage	44.8	44.8
Protection level	IP2X (IP65 optional)	IP65
Product size	670*540*90	700*980*100
Product weight	48kg	95kg
Communication Method	CANBus/RS485/RS232	CANBus/RS485/RS232
SOC(optional)	LED/LCD	LED/LCD

|||Low voltage stacked LiFePO4 battery

sms sanhui
Stock code: 002857



Support a variety of communication protocols, support RS485, RS232, CAN etc

Zhao Modular structure for easy installation

LED lights display the parameters of the equipment in real time

Long cycle life
Long cycle life

Supports up to 16 clusters in parallel

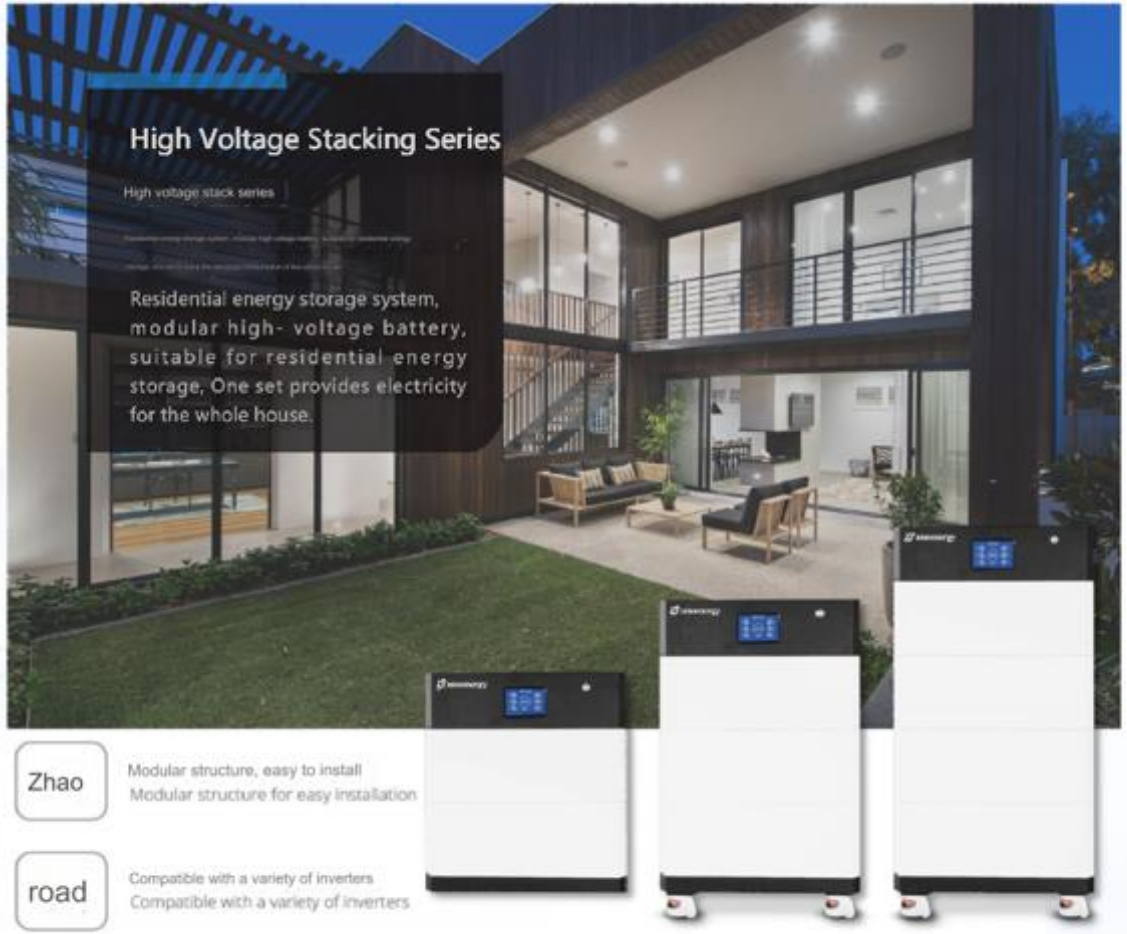
Intelligent battery management system

Can be used with hybrid inverter

Product model	SMS-48300S	SMS-48400S	SMS-48500S	SMS-48600S
Nominal voltage	48V/51.2V			
Regular capacity	300Ah	400Ah	500Ah	600Ah
energy	14.4kWh/15.3Wh	19.2kWh/20.4kWh	24.0kWh/25.6kWh	28.8kWh/30.7kWh
Product size	584*360*608mm	584*360*758mm	584*360*908mm	584*360*1058mm
Product weight	155kg	184Kg	240Kg	286kg
discharge mode	CC/CP/VP	CC/CP/VP	CC/CP/VP	CC/CP/VP
Communication method	RS485/CAN	RS485/CAN	RS485/CAN	RS485/CAN
Number of batteries in series	16S	16S	16S	16S
working temperature	-15~+60℃	-15~+60℃	-15~+60℃	-15~+60℃
design life	5+Years	5+Years	5+Years	5+Years
cycle life	>6000	>6000	>6000	>6000
Qualification certification	CE/UN38.3	CE/UN38.3	CE/UN38.3	CE/UN38.3
Charge cutoff voltage	54.7/58.4	54.7/58.4	54.7/58.4	54.7/58.4
Rated operating current	50A	50A	50A	50A
Remark	100A (customizable)			

|||High voltage stacked LiFePO4 battery

sms sanhui
Stock code: 002857



Zhao
Modular structure, easy to install
Modular structure for easy installation

road
Compatible with a variety of inverters
Compatible with a variety of inverters

Excellent security features
In the extreme performance safety test, the battery will not catch fire, explode, leak, and be safer to use.

Intelligent battery management system
Intelligent battery management system

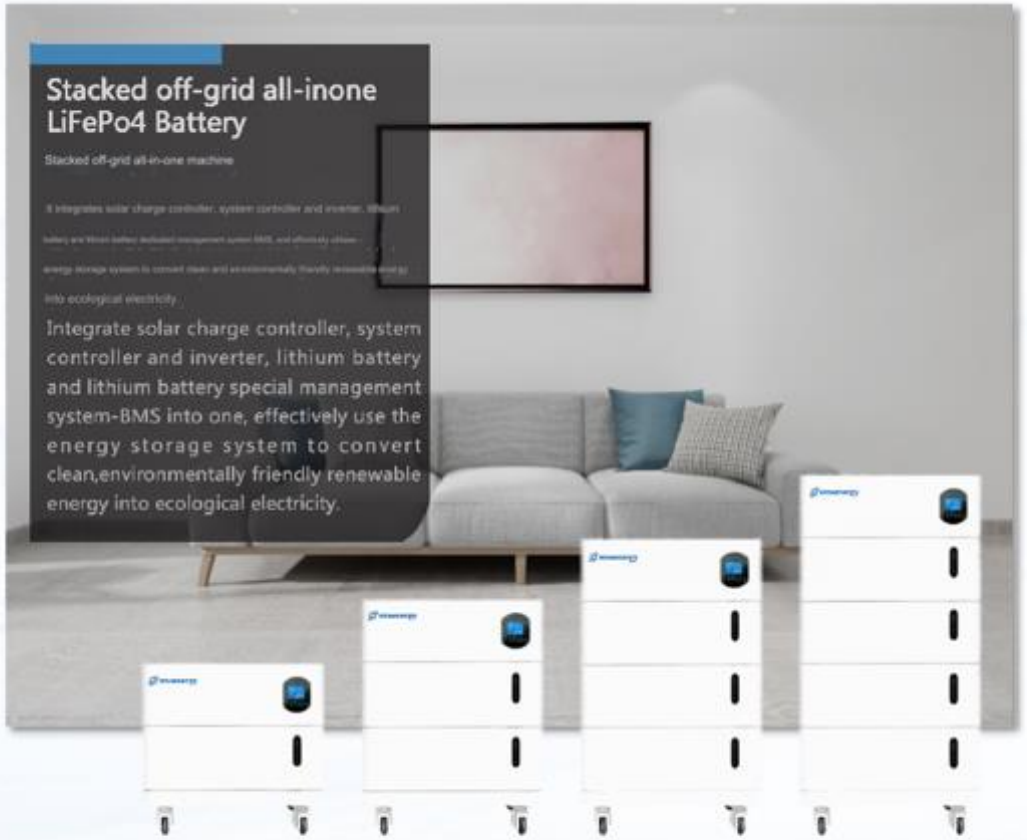
Long cycle life
Long cycle life

Support multiple communication protocols
Support a variety of communication protocols, support RS485, RS232, CAN etc

Product model	SMS20450SH	SMS30750SH	SMS40950SH	SMS51250SH
General parameters				
Nominal voltage	204V	307V	409V	512V
Regular capacity	50Ah			
energy	10.2KWh	15.35KWh	20.5KWh	25.6KWh
Product size	590*360*600mm	590*360*750mm	590*360*900mm	590*360*1050mm
Product weight	95kg (about)	133kg (about)	172kg (about)	212kg (about)
Working environment parameters				
working temperature	- 10C~60C @ 60±20% Relative Humidity			
storage temperature	0C~45C @ 60±20% Relative Humidity			
Protection level	IP21			
Battery parameters				
Working voltage	204V	307V	409V	512V
Maximum charging voltage	233V	350V	467V	584V
Discharge cutoff voltage	160V	240V	320V	400V
Maximum charging current	25A			
Maximum discharge current	50A			

|||Stacked off-grid integrated machine

sms sanhui
Stock code: 002857



Excellent security features
In the extreme performance safety test, the battery will not catch fire, explode, leak, and be safer to use.

Intelligent battery management system
Intelligent battery management system

Long cycle life
Long cycle life

Support a variety of communication pr-otocols, support RS485, RS232, CAN etc

project	Product model	SMS51100-5kw	SMS51200-5kw	SMS51300-5kw	SMS51400-5kw
battery module	Nominal voltage	51.2V			
	Regular capacity	100Ah	200Ah	300Ah	400Ah
	Charging voltage	58V			
	Discharge cutoff voltage	42V			
	Charging current	50A			
	Maximum charging current	100A			
	Discharge current	50A			
	Maximum discharge current	100A			
	Maximum peak current	200A			
	Communication method	RS485/CAN			
Hybrid inverter	power	5KW			
	Output voltage	230VAC+/-5%			
	frequency	50Hz/60Hz			
	Input power	5.5KW			
	Input voltage range	120~450VDC			
	communication port	RS485/CAN			
Other parameters	Product size	585*360*400	585*360*550	585*360*700	585*360*850
	Product weight	59Kg	103Kg	147Kg	188Kg
	working temperature	Charge : 0℃-50℃Discharge : -15℃-60℃			

|||Plastic shell LiFePO4 battery

SMS Sanhui
Stock code: 002857

Green environmental protection pollution-free

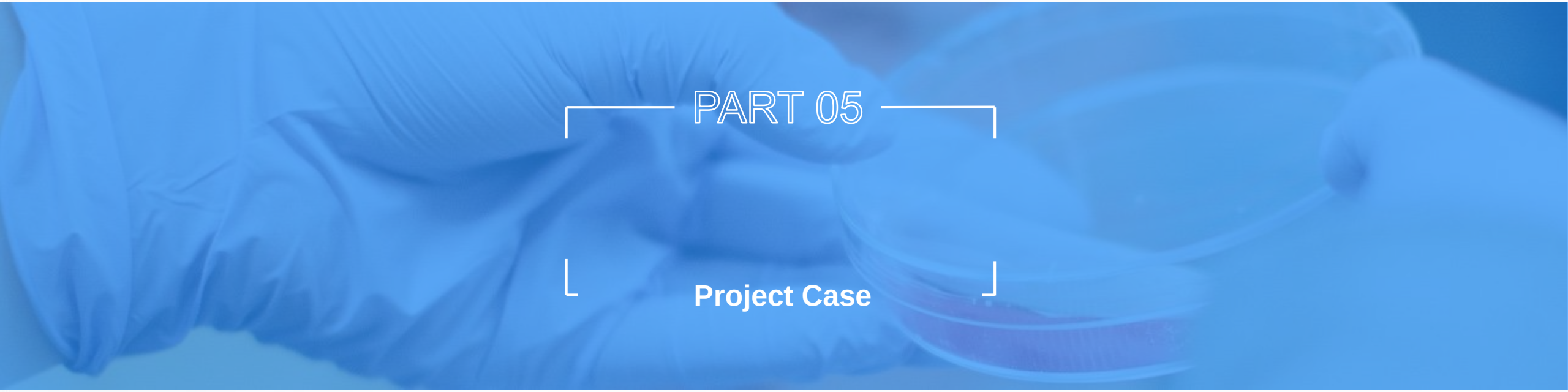
Light weight and small size
Light weight, Small size

IP65 water and dust resistance
IP65 waterproof and dustproof rating

Long cycle life
Long cycle life

Excellent security features
In the extreme performance safety test, the battery will not catch fire, explode, leak, and be safer to use.

Product model	SMS1240L	SMS1280L	SMS12100L	SMS12150L	SMS12200L
Nominal voltage	12.8V	12.8V	12.8V	12.8V	12.8V
Regular capacity	40Ah	80Ah	100Ah	150Ah	200Ah
energy	0.512	1.024	1.28	1.92	2.56
MPPT	12V-5A	12V-10A	12V-10A	12V-15A	12V-20A
cycle life	≥5,000 cycles to 85% DOD				
Charging efficiency	From 100% to 0.2C				
Discharge efficiency	From 96 to 99% to 1C				
Charging voltage	14.6+0.1V				
Charging mode	0.2C to 29.2V, then 29.2V charging current to 0.02C (CC/CV)				
Charging current	8	16	20	30	40
Maximum charging current	12	24	30	45	60
Charge cutoff voltage	14.6+0.2V				
Continuous voltage	18	24	30	45	60
Discharge cutoff voltage	10				
Product weight	6	19	21	28.5	37
SOC(optional)	LED/LCD				



PART 05

Project Case

||| Shenzhen Energy Ruoqiang Qiman 100MW wind power project with 10MW/20MWh storage

SMS Sanhui
Stock Code: 002857

The first new energy wind power storage project

Partner:Shenzhen Energy Group SHENZHEN ENERGY

Time: July 2023

Location: Ruoqiang, Xinjiang Autonomous Region

Application scenario: New energy wind power grid connection

Value: Balance output fluctuations, improve grid stability, energy time shifting, frequency and voltage regulation, improve wind power utilization, ancillary services, enhance grid flexibility, and promote renewable energy consumption

Installed capacity: 10MW/20MWh

The first new energy photovoltaic storage project

Partner:PowerChina Group

Time: July 2023

Location: Shihezi, Xinjiang Autonomous Region

Application scenario: New energy photovoltaic grid connection

Value: Energy storage and deployment, smooth power output, improve grid stability, balance supply and demand, optimize energy structure, distributed applications, improve reliability

Installed capacity: 45MW/90MWh

The first shared energy storage project

Partners: China Three Gorges New Energy (Group) Co., Ltd. Three Gorges Energy

Time: March 2024

Location: Jingyuan, Ningxia Autonomous Region

Application scenario: Independent shared energy storage

Value: Optimize resource allocation, reduce costs, enhance grid stability, promote new energy consumption, promote market competition, promote energy transformation, achieve benefit sharing, and promote regional coordinated development

Installed capacity: 100MW/200MWh

||| Tibet Kaitou Ritu 30MW photovoltaic power generation project with 6MW/24MWh storage

sms sanhui
Stock code: 002857

The first grid-connected energy storage

project

Partners: Tibet Development and Investment Group Co., Ltd. Tibet Development and Investment Co., Ltd.

Time: March 2024

Location: Ritu, Tibet Autonomous Region

Application scenario: Grid-connected energy storage

Value: Provide voltage source support, autonomous regulation function, improve grid stability, and promote the consumption and utilization of new energy

Installed capacity: 6MW/24MWh

The first independent grid-connected energy storage project

Partner: China Power Construction Group East China Engineering Survey and Design Institute Co., Ltd.

China Power Construction
POWERCHINA

China Power Construction Group East China Engineering Survey and Design Institute Co., Ltd.
HUADONG ENGINEERING CORPORATION LIMITED

Time: August 2024

Location: Nagqu City, Tibet Autonomous Region

Application scenario: Independent grid energy storage

Value: The world's highest altitude and largest capacity grid-connected independent energy storage power station

Installed capacity: 100MW/400MWh

The first energy storage frequency regulation project

Partner: China Gezhouba Group Electric Power Co., Ltd.

CCC ENERGY CHINA | China Gezhouba Group Power Co., Ltd.
CHINA GEZHOUBA GROUP ELECTRIC POWER CO., LTD.

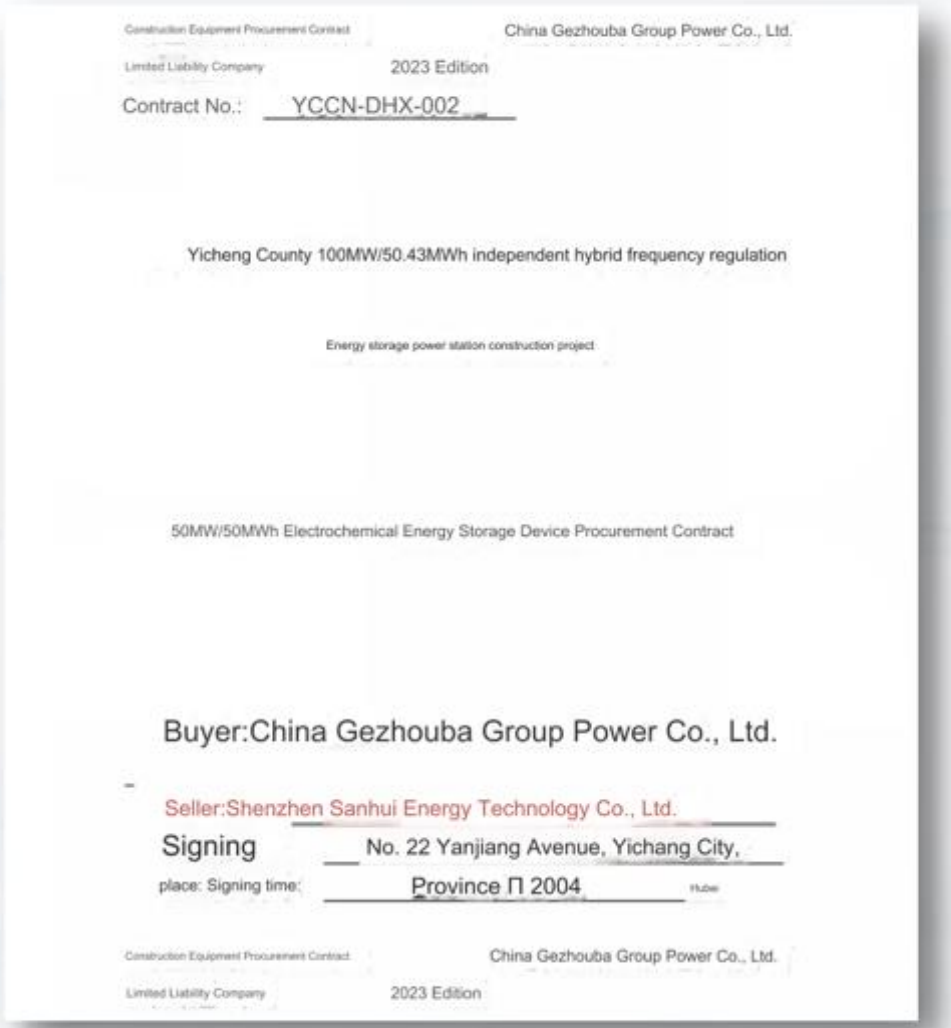
Time: May 2024

Location: Yicheng County, Shanxi Province

Application scenario: power grid frequency regulation

Value: The energy storage system frequency modulation has a millisecond response, which can reduce the impact of load fluctuations on the power grid and improve the stability of the power grid.

Installed capacity: 50MW/50MWh



Construction Equipment Procurement Contract
Limited Liability Company
China Gezhouba Group Power Co., Ltd.
2023 Edition

Contract No.: YCCN-DHX-002

Yicheng County 100MW/50.43MWh independent hybrid frequency regulation

Energy storage power station construction project

50MW/50MWh Electrochemical Energy Storage Device Procurement Contract

Buyer:China Gezhouba Group Power Co., Ltd.

Seller:Shenzhen Sanhui Energy Technology Co., Ltd.

Signing place: No. 22 Yanjiang Avenue, Yichang City, Province
Signing time: 2004

Construction Equipment Procurement Contract
Limited Liability Company
China Gezhouba Group Power Co., Ltd.
2023 Edition

Dongguan Xiaodong New Energy 150MW/300MWh Industrial and Commercial Energy Storage System

SMS Sanhui
Stock code: 002857

The first commercial and industrial energy storage project

Partner: Dongguan Xiaodong New Energy Co., Ltd.

XXiaodong XiaoDong
Xiaodong New Energy

Time: July 2023

Location: Dongguan, Guangdong Province

Application scenario: user-side energy storage

Value: Peak-valley arbitrage, demand management, demand-side response, energy time shifting, backup power supply, dynamic capacity expansion, peak shifting and valley leveling

Installed capacity: 150MW/300MWh

The first user-side energy storage project

Partner: China Datang Corporation

China Datang Group Co., Ltd.
China Datang Corporation Ltd.

Location: Changsha, Hunan Province

Application scenario: user-side energy storage

Value: Peak-valley arbitrage, demand management, demand-side response, energy time shifting, backup power supply,

dynamic capacity expansion, peak shifting and valley leveling

Installed capacity: 300KW/645KWh

||| Sanhui Electric signs 20MW/40MWh order with Zhejiang Hongxi Energy

SMS Sanhui
Stock Code: 002857

The first integrated photovoltaic storage and charging project

Partner: Zhejiang Hongxi Energy Co., Ltd. | M Cells

Location: Pinghu, Zhejiang Province

Application scenario: user-side energy storage

Cooperation: Jointly develop integrated photovoltaic storage and charging solutions for industrial and commercial, industrial parks, residential communities and other scenarios.

Installed capacity: 20MW/40MWh

The first zero-carbon industrial park project

Partner: Zhejiang Jiuyao Enterprise Management Co., Ltd.

Location: Jinhua, Zhejiang Province

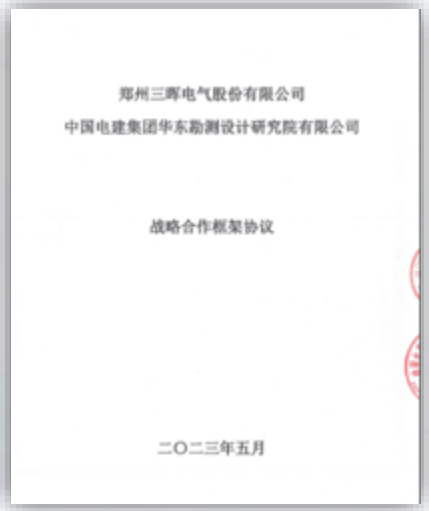
Application scenario: user-side energy storage

Cooperation: Create a comprehensive demonstration solution for source-grid-load-storage integration based on Jiuyao Industrial Park, and initially configure a distributed photovoltaic system of no less than 15MW, an industrial and commercial energy storage system of no less than 20MWh (3MWh in the first phase), and several photovoltaic storage and charging control modules in the park.

Become a strategic partner with many central enterprises and state-owned enterprises

Tibet Development and Investment Group Co., Ltd.

Datang Huayin Hunan Low Carbon Energy Co., Ltd.


郑州三晖电气股份有限公司
中国电建集团华东勘测设计研究院有限公司

战略合作框架协议

二〇二三年五月


许昌许继电科储能技术有限公司

深圳三晖能源科技有限公司

战略合作框架协议

二〇二三年五月


上海电气电力电子有限公司与深圳三晖能源科技有限公司
联合开发内蒙古能源集团有限公司储能项目
合作协议


平高集团储能科技有限公司
深圳三晖能源科技有限公司

合作开发协议

二〇二三年五月

||| Progress of overseas deployment of energy storage products

- At present, overseas energy storage products are distributed in more than 20 countries on five continents, and we have accumulated more than 50 long-term partners, 3 of which have become distributors;
- Among the current customers who have achieved in-depth cooperation, the number of orders placed by customers exceeds 300, and the repurchase rate exceeds 10%;
- The overseas energy storage project has a dual-track channel layout, combining online and offline channels, and the cooperation channels include Alibaba International Station, LinkedIn, Google, and exhibitions.

45%

Americas: Major transaction countries:

United States, Canada, Mexico, Puerto Rico, Colombia

Number of US orders: 140+

Number of dealer customers:1

5%

Africa: Major transaction countries:

Madagascar, Cameroon,

Number of buyers: 30+

5%

Australia: Main transaction country Australia

Transaction buyers:10+

35%

Europe: Main transaction countries: Germany, Italy, Spain, Belgium, Bulgaria, Ukraine, Poland, etc.

Number of buyers: 110+

Dealers: 2

10%

Middle East: Main transaction countries are Israel, Saudi Arabia, UAE, Lebanon

Transaction buyers:10+

THANKS

Chinese Contact:

Mobile:**+ 86 13827428883**

https://sms-enerji.com/

E-mail: info@sms-enerji.com

Exclusive Turkish Contact :

Mobile:+905466431075

Exclusive Sales Representative for Republic of Türkiye

Selin Mümessillik AS İstanbul

https://sms-enerji.com/

E-mail: info@sms-enerji.com