



# **Energy for Life**

2024 Catalogue





Our brands



Utility-scale C&I Residential



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# ZOE Energy Storage

SHANGHAI, CHINA

Shanghai ZOE Energy Storage Technology Co. Ltd., established in 2022, is dedicated to providing global users with safe and efficient energy storage product system solutions. The company is headquartered in Shanghai, with joint venture office in Suzhou, R&D center in Changzhou and a fully automated energy storage production center in Fuzhou. Meanwhile, a new factory is planned in Hubei Province. Relying on its innovative model and rich R&D experience, ZOE has developed modular, integrated energy storage products for different scenarios, like power generation, and commercial and household markets. The company has developed its own PCS, BMS, and EMS (3S) to ensure deep coupling and 3S high integration of products, and an EaaS cloud management platform to provide new energy solutions to users.

Shanghai ZOE Energy Storage inherits from ZOE Solar Energy Group Co. Ltd., which was established in 2013. It is a high-tech enterprise with new energy power station investment, storage product research and development production, and commercial applications as the main business units, with four major market divisions in the south, west, central, and north of China. With a CAGR of 183%, the total scale of the power stations developed by the group reached 1.92GW, the energy storage power station was 3.27GWh and a total investment of 16 billion CNY.



## R&D Center

JIANGSU, CHINA

Located in Changzhou, Jiangsu Province, ZOE R&D center is responsible for conducting energy storage technology research and new product development. The center strives to be a leader in the field, making significant contributions to energy transformation and sustainable development.

The center has continuously introduced top talents in the field of energy storage, and has established a core R&D team, which consists of experts and engineers with profound expertise and innovative capabilities in fields. The center is equipped with advanced equipment and laboratories, including an energy storage laboratory, a power electronics laboratory, a micro-grid laboratory, and a battery safety testing laboratory.

The center focuses on the development of energy storage 3S system products, which involves battery cluster structure design, system control and EMS development, PCS development, and so on. In the field of battery safety management, the center has proposed a globally leading multi-dimensional information fusion-based technology for battery fault diagnosis and risk management, which integrates multiple types of information. The center has established a system from information sampling to feature-level edge computing at the terminal to cloud-based decision-making-level integration, which ensures reliable health management and risk prediction of battery cells. In terms of professional cooperation, the center collaborates with third-party organizations such as TÜV Rheinland and JH Certification to jointly achieve broader and deeper innovation and expansion, solve technical problems, and promote the development and commercial application of energy storage technology.



## Production Center

JIANGXI, CHINA

The 2GWh intelligent factory, located in the Intelligent Manufacturing Industrial Park of Fuzhou, Jiangxi Province, has a workshop of 10,000 square meters and possesses a 2GWh energy storage module integrated production line, with the characteristics of automation, data-driven, and flexible production. The products are widely used in source/grid-side, commercial and industrial, and household energy storage. By utilizing the "PV-storage charging integrated" clean energy system and digital energy monitoring and management methods, the company reduces its reliance on fossil fuels, achieving low-carbon and sustainable green production.

In the manufacturing process, quality checkpoints are thoroughly controlled. From the battery cell, module, pack, and battery cluster to the whole system, the inspection includes consistency and reliability, adopting advanced quality control techniques such as machine vision and nondestructive testing to ensure product quality meets the standard.



## Product Advantages

## Safety

- Our self-developed liquid cooling system effectively dissipates heat when battery temperature is high, keeping the temperature difference between cells within 2.5°C.
- The PCS comes with a built-in arc detection system + intelligent algorithms, cutting off the main circuit in seconds upon arc detection, ensuring the safety of electrical equipment.
- The EMS, based on cloud architecture, conducts historical data trend analysis + machine learning to maintain the health of the cells throughout their lifecycle.
- A three-level fire safety design: the 1st level provides early warning with an embedded thermal runaway warning module. The 2nd level can achieve active firefighting at the single Pack level. The 3rd level, system-level fire protection barrier of the Z BOX, ensures that other outdoor cabinets can continue to operate safely.

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### Stability

- Our self-developed SmartM200 system supports millisecond-level response and can realize intelligent detection and analysis, centralized management, and control of the ESS.
- The PCS has a VSG function, possesses rotational inertia characteristics, and can perform primary and secondary frequency regulation.
- The PCS has the ability to perform black-start operations, has real-time load-following capabilities, and active SVG dynamic reactive power support capability.
- The EMS has edge computing capabilities, allowing for decision-making, intelligent analysis, and unmanned operations at ESS. Additionally, 5G / Ethernet enables high-speed connectivity between local and cloud data, improving grid / EaaS dispatch response capabilities.



### Economy

- Over 15 years of ultra-long design life, the intelligent cell temperature control mechanism extends cell life by 25% and extends system usage life by 18%.
- The full lifecycle return rate is increased by 22%, and LCOS is reduced by 17%.



### Efficiency

- The advanced ANPC three-level technology, optimized multistage SVPWM control technology, low-loss magnetic component design technology, can achieve a maximum efficiency of 99.2%.
- The liquid cooling system can heat the batteries in the cold regions, can control the cell temperature within the optimal range of 25°C~35°C, achieving optimal power and capacity, 95% DOD, and system efficiency can be over 95%.

## Solutions for Every Energy Storage System

### **Commercial and Industrial Use**

We provide a tailored ESS solution, which utilizes a modular design, flexibly adapting to various scenarios, supporting multiple operating modes, and maximizing return on investment. The solution focuses on dispatching peak and valley power demands. By realizing peak shifting and off-peak power consumption, it can effectively alleviate grid pressure while lowering electricity costs.

**Main scenarios:** oil-to-electricity conversion, factories, industrial parks, port docks, commercial office buildings, data centers, photovoltaic storage charging, etc.

**Main demands:** power restrictions/outages, high peak electricity prices, high electricity demand, high demand charges, insufficient capacity, high transformer expansion costs, siting restrictions and ESG requirements.

### Source/Grid Side Use

By digitally coordinating the management of key links in energy production, inversion, energy storage, monitoring, and communication, the stability, reliability, and economic efficiency of the power system on the grid side are strengthened. Grid-side ESS aim to lower overall energy costs by optimizing energy allocation strategies and coordinating peak shaving and valley filling measures.

**Main scenarios:** wind and solar energy, power plant energy storage and large-scale thermal power, hydropower stations, shared energy storage, and frequency modulation energy storage.

**Main demands:** compulsory energy storage, safety issues, transportation difficulties, tension of available land, no compensation balance quota, and long construction periods.





## Development History

## 2013

Establishment of ZOE Solar Energy Group Co., Ltd.

### 2014

Completion and operation of a photovoltaic module factory with an annual production capacity of 500MW.

### 2015

Initiation of global strategic layout and overseas investment.

### 2016

As a pioneer in the household distributed market, ZOE launched its sub-brand: Future Home, investing in 2000+ household power stations and won the household photovoltaic market gold award.

## 2017

Top 5 module sellers in Australian market.

## 2018

Venturing into new energy vehicle industry: investment in a new energy vehicle aftermarket service platform.



### 2019

With increasing investment in independent technical research and development largescale photovoltaic power plants, ZOE won the tender of a 240MW ground solar plant, the largest individual project in Southern Power Grid and Guizhou Province as well.

### 2020

Deep development in the domestic market, winning national bidding of 350MW photovoltaic project, ranking first among private enterprises in . Guizhou Province.

### 2021

Establishment of Changzhou Energy Storage R&D Center, in Jiangsu Province.

After approval of 7 photovoltaic and 2 wind power projects, ZOE's total installed capacity reached 1.92GW, becoming a top renewable energy project developer in China.

### 2022

#### Establishment of Shanghai ZOE Energy Storage Technology Co., Ltd.

Successful R&D and certification of Z BOX, a liquid cooling energy storage product.

Expansion into the Tibetan market: ZOE got approval of 3 photovoltaic projects, totally 80MW, and 5 energy storage power stations with total installed capacity of 3.43GWh.

### 2023

Improvement of global market layout.

Establishment of 2GWh energy storage system intelligent factory in Jiangxi Province.

Planning of 6GWh energy storage system intelligent factory in Hubei Province.

**Establishment** of Jiangsu ZOE Renewable Energy Co., Ltd.

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# Z BOX-C Battery Energy Storage System

105kW | 215kWh | 0.5C



#### Safe and Reliable

- Safely Separated Cabinet Layout for Physical Isolation
- Equipped with Safety Management System (SMS) for multiple safety protections
- Uses CATL's high-quality, safe, and efficient LFP cells
- Full lifecycle management

#### **Economical and Efficient**

- Rapid power response, supporting various modes like virtual power plants, on-grid, off-grid, etc.
- Intelligent balancing strategy to ensure battery lifecycle consistency
- Dynamic switching of energy regulation strategies

#### Flexible Deployment

- Structured design, easy to expand
- Supports centralized, decentralized deployment, and integration with photovoltaic storage and charging.

#### Data Management

- Cloud-Edge-End collaboration with 24/7 performance monitoring for safe and stable operation.
- Cloud-based big data and intelligent algorithms for flexible system strategy adjustment.



Technical Data	ZOE-C215L-A-EU		
Battery Data			
Cell type	LFP (LiFePO4)		
Rated capacity	280 Ah		
Serial-parallel type	1P240S		
Rated capacity per pack	43.008 kWh		
Pack number	5		
System rated energy capacity	215.04 kWh		
DC rated voltage	768 V		
DC voltage range	672~864 V		
Rated DC current	140 A		
Maximum DC current	160 A		
AC Data			
Rated AC power	105 kW		
Rated grid voltage	400 Vac		
Rated grid frequency	50/60 Hz		
Maximum AC current	167 A		
AC wiring type	3W/N+PE		
Power factor	-1~+1		
General Data			
DOD	95%		
Ingress protection	IP55 (Battery room and PCS room)		
Cooling concept	Liquid cooling		
Heating concept	Liquid heating		
Fire suppression system	Aerosol		
Operating temperature range	-20~55°C		
Relative humidity	5~95%		
Maximum working altitude	2000 m		
Display	App / Web / LED		
COM interfaces	RS485 / Ethernet / 4G (Optional)		
Dimensions (WxDxH)	11399x1344x2080 mm		
Weight	2450±50 kg		

# Z BOX-H Battery Energy Storage System

372kWh | 0.5C



#### Safe and Reliable

- Safely Separated Cabinet Layout for Physical Isolation
- Equipped with Safety Management System (SMS) for multiple safety protections
- Uses CATL's high-quality, safe, and efficient LFP cells
- Full lifecycle management

#### **Economical and Efficient**

- Rapid power response, supporting various modes like virtual power plants, on-grid, off-grid, etc.
- Intelligent balancing strategy to ensure battery lifecycle consistency
- Dynamic switching of energy regulation strategies

#### Flexible Deployment

- Structured design, easy to expand
- Supports centralized, decentralized deployment, and integration with photovoltaic storage and charging.

#### Data Management

- Cloud-Edge-End collaboration with 24/7 performance monitoring for safe and stable operation.
- Cloud-based big data and intelligent algorithms for flexible system strategy adjustment.



#### Technical Data

#### ZOE-C372L-D-EU

#### Battery Data

Cell type	LFP (LiFePO4)
Rated capacity	280 Ah
Serial-parallel type	1P416S
Rated capacity per pack	46.592 kWh
Pack number	8
System rated energy capacity	372.736 kWh
DC rated voltage	1331.2 V
DC voltage range	1164.8~1497.6 V
Rated DC current	140 A
Maximum DC current	160 A

#### General Data

DOD	95%
Ingress protection	IP55 (Battery room)
Cooling concept	Liquid cooling
Heating concept	Liquid heating
Fire suppression system	Aerosol
Operating temperature range	-20~55°C
Relative humidity	5~95%
Maximum working 1	2000 m
Display	App / Web / LED
COM interfaces	RS485 / Ethernet
Dimensions (WxDxH)	1370x1330x2270 mm
Weight	3550±50 kg

# **Z PCS** Power Conversion System

200kW



- Charge/discharge each cluster independently
- Fast plug and play, easy expansion
- C5M anti-corrosion grade
- Parallel in AC side (maximum 40 sets)
- Grid-forming/black start capability
- Safe and reliable
- Modular design philosophy
- · No need advanced technical service personnel
- Horizontal and vertical mounting thermal design
- Higher battery capacity utilization

Technical Data	ZOE-ECS200-HB-A
DC Input	
Maximum DC voltage	1500 Vdc
Startup voltage	1000 Vdc
Maximum input current	224.5 A
Full-load voltage range	1000~1500 Vdc
AC Output (On-grid)	
AC output power	220 kVA @35°C, 200 kVA @45°C
Rated output voltage	690 Vac, 3W+PE
AC voltage range	607~759 Vac (Adjustable)
Rated frequency	50/60 Hz
Maximum rated output current	167.4 A (184.1 A)
Power factor	-1~+1
THDi	<1.5% (100% load)
AC Output (Off-grid)	
Rated output voltage	690 Vac, 3W+PE
AC voltage range	607~759 Vac (Adjustable)
Rated frequency	50/60 Hz
AC voltage distortion	<1.5% (100% linear load)
DC voltage component	<0.5% Un (Linear balance load)
Unbalanced load capacity	100%
General Data	
Maximum efficiency	99%
European efficiency	98.5%
Isolation mode	Transformerless
Ingress protection	IP66
Operating temperature range	-40~+60°C (>45°C derating)
Relative humidity	0~100%, No condensation
Cooling concept	Smart air cooling
Maximum working altitude	4000 m (>3000 m derating)
Communication	RS485 / CAN / Ethernet
Certifications	GB/T 34120-2017; GB/T 34133-2017; IEC 62477-1; IEC 61000-6-2; IEC 61000-6-4; EN 50549-1; EN 50549-2
Dimensions (WxDxH)	810x275x845 mm

Weight

98 kg

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# RHT-4~12K-25 Three-phase Hybrid Inverter

4kW / 5kW / 6kW / 8kW / 10kW / 12kW



#### Optimal power and storage

- 98.2% maximum efficiency
- 15A PV input current per string, 2 MPP trackers
- 110% unbalanced output

#### Strong load and back-up

- 110% continuous AC output overloading
- 200% maximum back-up output overloading @60s
- 150% DC oversizing

#### Convenient installation and operation

- Plug & play terminals for easy wiring
- I-light, power and alarm indicator
- OLED display and app for setting and data management

#### Flexible design and use

- 135~750V wide battery voltage range
- IP65 for indoor and outdoor installation
- Compact size and elegant appearance

Technical Data	RHT-4K-25	RHT-5K-25	RHT-6K-25	RHT-8K-25	RHT-10K-25	RHT-12K-25
PV Input						
Recommended maximum input power	6.0 kW	7.5 kW	9.0 kW	12.0 kW	15.0 kW	18.0 kW
Start-up voltage		1	13	5 V	,	
Maximum DC input voltage			100	00 V		
Rated DC input voltage			62	0 V		
MPPT voltage range		120~950 V			200~950 V	
Number of MPP trackers				2		
Number of DC inputs per MPPT			1,	/1		
Maximum input current			15,	/15		
Maximum short-circuit current			20,	/20		
Battery Side						
Battery type			Lithium Batte	ery (with BMS)		
Battery voltage range			135~	750 V		
Maximum charging/discharge current			25/2	25 A		
Grid Side						
Rated output power	4.0 kW	5.0 kW	6.0 kW	8.0 kW	10.0 kW	12.0 kW
Maximum output apparent power	4.4 kVA	5.5 kVA	6.6 kVA	8.8 kVA	11.0 kVA	13.2 kVA
Maximum input apparent power	8.0 kVA	10.0 kVA	12.0 kVA	16.0 kVA	16.5 kVA	16.5 kVA
Maximum charging power of battery	4.0 kW	5.0 kW	6.0 kW	8.0 kW	10.0 kW	12.0 kW
Rated AC voltage		3	L/N/PE: 220/380V	230/400V:240/415	5V	
Rated AC frequency			50/6	0 Hz		
Maximum output current	67A 83A 100A 133A 165A 200A					20.0 A
Power factor		<u> </u>	0.8 leading .	0.8 lagging	1	
Maximum total harmonic distortion			<3% @Rated	output power		
DCI			<0.5	5%ln		
Back-up Side						
Rated output power	4.0 kW	5.0 kW	6.0 kW	8.0 kW	10.0 kW	12.0 kW
Maximum output apparent power	4.4 kVA	5.5 kVA	6.6 kVA	8.8 kVA	11.0 kVA	13.2 kVA
Maximum output current	67A	8.3 A	10 0 A	13.3 A	16.5 A	20.0 A
UPS switching time			<10	ms		
Rated output voltage		3	L/N/PE: 220/380V	230/400V:240/415	δV	
Rated output frequency			50/6	0 Hz		
Voltage harmonic distortion			<3% @Li	near load		
Efficiency						
Maximum efficiency		98.1%			98.2%	
Furopean efficiency		97.3%			97.4%	
General Data					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Protection	DC reverse polarity protection; Battery input reverse connection protection; Insulation resistance protection; Surge protection; Over-temperature protection; Residual current protection; Islanding protection; AC over-voltage protection; Overload protection; AC short-circuit protection					
Over voltage category			PV: II N	1ain: III		
Ingress protection			IP	65		
Standby self-consumption			<15	δW		
Тороlоду			Transfor	merless		
Operating temperature range			-30~	60°C		
Relative humidity			0~1	00%		
Maximum working altitude			3000 m (>300	0 m derating)		
Cooling concept			Natural c	onvection		
Noise level			<25	dB		
Display			OLED	& LED		
Communication			CAN, RS485, WiF	i/LAN (Optional)		
Dimensions (WxDxH)			534x210	x418 mm		
Weight	26 kg					

# **RHT-10~20K-40** Three-phase Hybrid Inverter

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10kW / 12kW / 15kW / 20kW





- 98.4% maximum efficiency
- 30A PV input current, 2 MPP trackers
- 110% unbalanced output
- 40A charge/discharge current

#### Strong load and back-up

- 110% continuous AC output overloading
- 200% maximum back-up output overloading @60s
- 10ms UPS-level switching
- 150% DC oversizing

#### Convenient installation and operation

- Plug & play terminals for easy wiring
- · I-light, power and alarm indicator
- OLED display and app for setting and data management
- WiFi configuration via app

#### Flexible design and use

- 135~750V wide battery voltage range
- IP65 for indoor and outdoor installation
- Support paralleling up to 10 devices
- Compact size and elegant appearance

Technical Data	RHT-10K-40	RHT-12K-40	RHT-15K-40	RHT-20K-40		
PV Input						
Recommended maximum input power	15.0 kW	18.0 kW	22.5 kW	30.0 kW		
Start-up voltage		13	5 V			
Maximum DC input voltage	1000 V					
Rated DC input voltage	620 V					
MPPT voltage range		200~	950 V			
Number of MPP trackers			2			
Number of DC inputs per MPPT		2	/2			
Maximum input current		30	/30			
Maximum short-circuit current		40	/40			
Battery Side						
Battery type		Lithium Batte	ery (with BMS)			
Battery voltage range		135~	750 V			
Maximum charging/discharge current		40/-	40 A			
Grid Side						
Rated output power	10.0 kW	12.0 kW	15.0 kW	20.0 kW		
Maximum output apparent power	11.0 kVA	13.2 kVA	16.5 kVA	22.0 kVA		
Maximum input apparent power	20.0 kVA	24.0 kVA	30.0 kVA	30.0 kVA		
Maximum charging power of battery	10.0 kW	12.0 kW	15.0 kW	20.0 kW		
Rated AC voltage		3L/N/PE; 220/380V	;230/400V;240/415V			
Rated AC frequency		50/6	50 Hz			
Maximum output current	16.5 A 20.0 A 25.0 A 33.5 A					
Power factor		0.8 leading .	0.8 lagging			
Maximum total harmonic distortion		<3% @Rated	output power			
DCI		<0.	5%In			
Back-up Side						
Rated output power	10.0 kW	12.0 kW	15.0 kW	20.0 kW		
Maximum output apparent power	11.0 kVA	13.2 kVA	16.5 kVA	22.0 kVA		
Maximum output current	16.5 A	20.0 A	25.0 A	33.5 A		
UPS switching time		<1(	) ms			
Rated output voltage		3L/N/PE; 220/380V	;230/400V;240/415V			
Rated output frequency		50/6	50 Hz			
Voltage harmonic distortion		<3% @Li	near load			
Efficiency						
Maximum efficiency		98	.4%			
European efficiency		97	.5%			
General Data						
Protection	DC reverse polarity p protection; Surge pro protection; AC ov	rotection; Battery input rev tection; Over-temperature ver-voltage protection; Ove	erse connection protection protection; Residual current erload protection; AC short-	Insulation resistance protection; Islanding circuit protection		
Over voltage category		PV: II N	Main: III			
Ingress protection		IP	65			
Standby self-consumption		<1	5 W			
Тороlogy		Transfo	rmerless			
Operating temperature range		-30^	~60°C			
Relative humidity		0~1	00%			
Maximum working altitude		3000 m (>300	)0 m derating)			
Cooling concept		Sma	rt fan			
Noise level		<4(	) dB			
Display		OLED	& LED			
Communication		CAN, RS485, Wif	Fi/LAN (Optional)			
Dimensions (WxDxH)		534x210	0x418 mm			
Weight	28 kg 31 kg					

# RHT-25~50K-100 Three-phase Hybrid Inverter

25kW / 30kW / 36kW / 40kW / 50kW



#### Optimal power and storage

- 98.4% maximum efficiency
- 30A PV input current, 2 MPP trackers
- 100% unbalanced output
- 100A charge/discharge current

#### Strong load and back-up

- 110% continuous AC output overloading
- 120% maximum back-up output overloading @60s
- 10ms UPS-level switching
- 150% DC oversizing

#### Convenient installation and operation

- Plug & play terminals for easy wiring
- I-light, power and alarm indicator
- OLED display and app for setting and data management
- WiFi configuration via app

#### Flexible design and use

- 135~750V wide battery voltage range
- IP65 for indoor and outdoor installation
- Support paralleling up to 10 devices
- Compact size and elegant appearance

Technical Data	RHT-25K-100	RHT-30K-100	RHT-36K-100	RHT-40K-100	RHT-50K-100	
PV Input						
Recommended maximum input power	37.5 kW	45.0 kW	54.0 kW	60.0 kW	75.0 kW	
Start-up voltage			135 V			
Maximum DC input voltage			1000 V			
Rated DC input voltage			620 V			
MPPT voltage range			200~850 V			
Number of MPP trackers			4			
Number of DC inputs per MPPT			2			
Maximum input current			30x4 A			
Maximum short-circuit current			40x4 A			
Battery Side			10/11/1			
Battery Side		1 :+	hium Botton (with DN	10)		
Battery type		LIL	125750 V	13)		
Battery voltage range			100/100 A			
Maximum charging/discharge current			100/100 A			
Grid Side						
Rated output power	25.0 kW	30.0 kW	36.0 kW	40.0 kW	50.0 kW	
Maximum output apparent power	27.5 kVA	33.01 kVA	39.6 kVA	44.0 kVA	55.0 kVA	
Maximum input apparent power	30.0 kVA	36.0 kVA	43.5 kVA	48.0 kVA	60.0 kVA	
Maximum charging power of battery	25.0 kW	30.0 kW	36.0 kW	40.0 kW	50.0 kW	
Rated AC voltage		3L/N/PE	; 220/380V;230/400V;2	240/415V		
Rated AC frequency			50/60 Hz			
Maximum output current	42.0 A	50.0 A	60.0 A	66.0 A	83.0 A	
Power factor	0.8 leading 0.8 lagging					
Maximum total harmonic distortion		<3	% @Rated output pov	/er		
DCI			<0.5%In			
Back-up Side						
Rated output power	25.0 kW	30.0 kW	36.0 kW	40.0 kW	50.0 kW	
Maximum output apparent power	27.5 kVA	33.0 kVA	39.6 kVA	44.0 kVA	55.0 kVA	
Maximum output current	42.0 A	50.0 A	60.0 A	66.0 A	83.0 A	
UPS switching time			<20 ms			
Rated output voltage		3L/N/PE	; 220/380V;230/400V;2	240/415V		
Rated output frequency			50/60 Hz			
Voltage harmonic distortion			<3% @Linear load			
Generator Side						
Maximum intput apparent power	30.0 kVA	36.0 kVA	43.5 kVA	48.0 kVA	60.0 kVA	
Maximum charging power of battery	25.0 kW	30.0 kW	36.0 kW	40.0 kW	50.0 kW	
Rated AC voltage		3L/N/PE	220/380V:230/400V:2	240/415V		
Rated AC frequency			50/60 Hz			
Efficiency						
Maximum efficiency			08.8%			
Furonean efficiency			08.3%			
Cararal Data			70.376			
General Data						
Protection	DC reverse pola protection; Surg protection;	irity protection; Batter le protection; Over-ter AC over-voltage prote	y input reverse conne nperature protection; ection; Overload prote	ction protection; Insu Residual current pro ction; AC short-circu	ilation resistance tection; Islanding it protection	
Over voltage category		<u> </u>	PV: II Main: III			
Ingress protection			IP65			
Standby self-consumption			<15 W			
Topology			Transformerless			
Operating temperature range			-30~60°C			
Relative humidity			0~100%			
Maximum working altitude		.30	00 m (>3000 m deratir	ng)		
Cooling concept			Smart fan	<i></i>		
Noise level			<50 dB			
Display			OLED & I FD			
Communication		CAN	RS485. WiFi/LAN (Ont	ional)		
Dimensions (WxDxH)		0, 111,	800x300x620 mm	,		
Weight	72 kα					

# RES-2.5K3~6 Battery Energy Storage System

High Voltage | 7.5kWh / 10kWh / 12.5kWh / 15kWh



#### Flexible applications

- Each battery 2.56kWh, scalable to 15.36kWh
- Applicable to single-phase and three-phase high-voltage hybrid inverters

#### Safety and reliable

- LiFePO4 prismatic battery cell, high safety
- Secured by integrated superior vehicle-level BMS

#### High performance

- High power emergency-backup when outage
- IP65 for both indoor and outdoor installation

#### Easy installation

- Compact and light, quick installation and configuration
- Prefabricated cables and connectors for plug and play

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Technical Data	RES-2.5K3	RES-2.5K4	RES-2.5K5	RES-2.5K6
Battery Module	म् म्	म् म् 	<u>छ</u>	
Cell type		LFP (Li	FePO4)	
Battery capacity		2.56	kWh	
Cell capacity		50	Ah	
Depth of discharge		93	3%	
Dimensions (WxDxH)		512x460	x150 mm	
Weight		28.5	5 kg	
General Data				
Battery quantity	3 + BMS	4 + BMS	5 + BMS	6 + BMS
System capacity	7.68 kWh	10.24 kWh	12.80 kWh	15.36 kWh
Rated voltage	153.6 V	204.8 V	256 V	307.2 V
Voltage range	129.6~170.4 V	172.8~227.2 V	216~284 V	259.2~340.8 V
Charging temperature		0~5	5°C	
Discharging temperature		-10~	55°C	
Operating temperature range		-20~	55°C	
Continuous charge/discharge current		25	5 A	
Maximum charge/discharge current		50	) A	
Cycle life		≥6000 cycles (25	°C, 0.5C, 70%EOL)	
SOC accuracy		3>	3%	
Communication		CA	AN	
Ingress protection		IP	65	
Transportation SOC		<3	0%	
Cooling concept		Natural	cooling	
Relative humidity		<95%, No co	ondensation	
Maximum working altitude		200	10 m	
Safety standards		CE, UN38.3, S	SDS, IEC62619	
Dimensions (WxDxH)	512x460x715 mm	512x460x865 mm	512x460x1015 mm	512x460x1165 mm
Weight	102.5 kg	131 kg	159.5 kg	188 kg

# RES-5K3~6 Battery Energy Storage System

High Voltage | 15kWh / 20kWh / 25kWh / 30kWh



#### Flexible applications

- Each battery 5.12kWh, scalable to 30.72kWh
- Applicable to single-phase and three-phase highvoltage hybrid inverters

#### Safety and reliable

- LiFePO4 prismatic battery cell, high safety
- Secured by integrated superior vehicle-level BMS

#### High performance

- High power emergency-backup when outage
- IP65 for both indoor and outdoor installation

#### Easy installation

- Compact and light, quick installation and configuration
- Prefabricated cables and connectors for plug and play

Technical Data	RES-5K3	RES-5K4	RES-5K5	RES-5K6
Battery Module	) 		<u> </u>	
Cell type		LFP (Li	FePO4)	
Battery capacity		5.12	kWh	
Cell capacity		100	) Ah	
Depth of discharge		93	3%	
Dimensions (WxDxH)		675x310	x251 mm	
Weight		53	kg	
General Data				
Battery quantity	3 + BMS	4 + BMS	5 + BMS	6 + BMS
System capacity	15.36 kWh	20.48 kWh	25.60 kWh	30.72 kWh
Rated voltage	153.6 V	204.8 V	256 V	307.2 V
Voltage range	129.6~170.4 V	172.8~227.2 V	216~284 V	259.2~340.8 V
Charging temperature		0~5	5°C	
Discharging temperature		-10~	55°C	
Operating temperature range		-20~	55°C	
Continuous charge/discharge current		50	) A	
Maximum charge/discharge current		10	0 A	
Cycle life		≥6000 cycles (25	°C, 0.5C, 70%EOL)	
SOC accuracy		<8	3%	
Communication		C/	AN	
Ingress protection		IP	65	
Transportation SOC		<3	0%	
Cooling concept		Natural	cooling	
Relative humidity		<95%, No co	ondensation	
Maximum working altitude		200	10 m	
Safety standards		CE, UN3	8.3, SDS	
Dimensions (WxDxH)	678x310x1017 mm	678x310x1268 mm	678x310x1519 mm	678x310x1770 mm
Weight	172 kg	225 kg	278 kg	331 kg



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