



Na⁺

Sodium ion battery

HENAN ZHUOWEI NEW ENERGY TECHNOLOGY CO.,LTD

ZVEPOW SODIUM BATTERIES

Empowering green and sustainable development



HENAN ZHUOWEI NEW ENERGY TECHNOLOGY CO.,LTD

Official website: www.zvepow.com

E-mail: info@zvepow.com

Phone/Whatsapp: +86 15836163426 +86 15637378806

Add: BeiHuan Battery Industrial Park, Xinxiang City, Henan Province, China.

Company Profile

ZVEPOW, headquartered in Xinxiang, Henan, China, is a professional battery pack manufacturer integrating R&D, production, and global export. We specialize in customized solutions for energy storage and are committed to becoming a leading global provider of battery power and energy management solutions. With the mission of "driving global development," we continuously provide stable, efficient, and safe energy security for key sectors such as global industry, data centers, urban construction, and infrastructure.

Core advantages

The company prioritizes technological innovation and quality, with all products strictly adhering to international reliability standards. Leveraging its independent manufacturing capabilities for all battery pack categories, it flexibly responds to diverse customer needs in terms of specifications, performance, and application scenarios. Simultaneously, it has established a comprehensive export support service system to achieve efficient and stable global supply. Currently, it has established long-term and stable cooperative relationships with wholesalers, system integrators, and import distributors in the residential and commercial energy storage sectors.

Product Matrix

Product Matrix: The company's core products cover four major battery series: lithium-ion, sodium-ion, solid-state, and lead-acid, which are widely used in three major scenarios: energy storage, power, and starting.

Battery Energy Storage Systems (BESS)

Providing integrated customized energy storage solutions for industrial, commercial, residential, power grid, and renewable energy sectors.

Communication and Data Center Backup Power

Providing high-reliability power protection for critical network equipment, UPS systems, and AI data centers.

Automotive Power Supplies

Adapting to traditional fuel vehicles, new energy vehicles, and motorcycles, providing start-stop, lighting, and ignition batteries.

Power Supplies

Providing high-performance dedicated power supplies for golf carts, electric bicycles, tricycles, material handling equipment, and forklifts.

Global cooperation

Targeting the global market, Zowie New Energy offers three cooperation models: brand agency, OEM manufacturing, and ODM customized R&D. With customer needs at its core, technological innovation as its driving force, and reliable quality as its foundation, it continues to expand its global business footprint.

Future Vision

Looking ahead, Zowie New Energy will continue to deepen its involvement in the energy storage sector, continuously improving its intelligent manufacturing and R&D capabilities, striving to become a leading global supplier of battery packs for production and export. Adhering to the development philosophy of innovation, reliability, and sustainability, we will work hand in hand with global customers and partners to create a new future for green energy.



General-purpose/Lead acid converted to sodium

Application Scenarios

This universal sodium-ion battery series supports multiple cells connected in series or parallel, making it an ideal replacement for lead-acid batteries. It features a built-in intelligent battery management system with multiple protection functions, including overcharge, over-discharge, overcurrent, high and low temperature protection, and short circuit protection. The battery is lightweight, has high energy density, requires no maintenance, has a long cycle life, is highly reliable, and is environmentally friendly.

12V

Lead-modified sodium

Sodium ion battery NFPP

Specification

- Lightweight, reducing weight and space requirements, high energy density, environmentally friendly
- Wide operating temperature range, excellent high and low temperature performance
- Improving efficiency and charging speed, energy saving, stable power supply, high power output
- Maintenance-free
- Long cycle life, high reliability
- Built-in intelligent BMS, real-time protection of the battery, extending service life
- Lower environmental impact and safer operation

Model	ZVN1250	ZVN12100	ZVN12170
Model	570Wh(11.4V50AH)	1140wh(11.4V100AH)	1938wh(11.4V170AH)
Nominal Voltage	11.4V	11.4V	11.4V
Nominal Capacity	50Ah	100AH	170AH
Positive Material	Sodium ion	Sodium ion	Sodium ion
Energy	570Wh	1140Wh	1938Wh
Working Voltage	8-13.8Wh	8-13.8Wh	8-13.8V
Float charge voltage(V)	13.8V	13.8V	13.8V
Cut-off voltage(V)	8V	8V	8V
Approx. Weight	8kg	16kg	24Kg
Length	257mm	330mm	522mm
Dimension Width	132mm	173mm	240mm
Container Height	200mm	212mm	218mm
Terminal Type	M8		
Container Material	ABS		
IP Rating	IP21		
Charging temperature(℃)	-20~60℃		
Discharge temperature(℃)	-30~60℃		
Cycles(25℃,0.5C,90%DOD)	8000 cycles		
Self Discharge	≤3% Per Month		
Max.number of series andparallel connections	4S1P		
Function	CE,UN38.3,MSDS		
Max Continuous Charge Current	50A	100A	150A
Recom. Charge Current	10A	20A	20A
Upper Limit Voltage	13.8V	13.8V	13.8v
Max Continuous Discharge Current	50A	100A	150A
Recom. Discharge Current	25A	50A	50A
Lower Limit Voltage	8V	8V	8V
Function / Can be added	WIFI、Touch Screen		

Application Scenarios

1. Motorhome, camping
2. UPS (replacing SLA batteries)
3. Golf carts, electric vehicles, electric mobility
4. Solar/wind energy storage system
5. Solar/wind energy storage system
6. Medical equipment
7. Lighting"

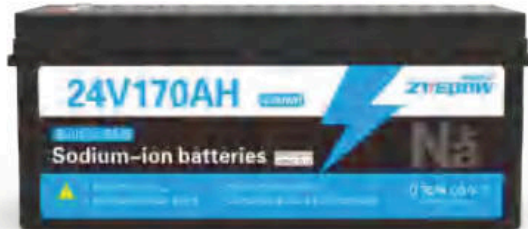


24V

Lead-modified sodium



- Lightweight, reducing weight and space requirements, high energy density, environmentally friendly
- Wide operating temperature range, excellent high and low temperature performance
- Improving efficiency and charging speed, energy saving, stable power supply, high power output
- Maintenance-free
- Long cycle life, high reliability
- Built-in intelligent BMS, real-time protection of the battery, extending service life
- Lower environmental impact and safer operation



Application Scenarios

1. Motorhome, camping
2. UPS (replacing SLA batteries)
3. Golf carts, electric vehicles, electric mobility
4. Solar/wind energy storage system
5. Solar/wind energy storage system
6. Medical equipment
7. Lighting"



Sodium ion battery NFPP

Specification			
Model	ZVN2450	ZVN24100	ZVN24170
Model	1140Wh(22.8V50AH)	2280Wh(22.8V100AH)	3876wh(22.8V170AH)
Nominal Voltage	22.8V	22.8V	22.8V
Nominal Capacity	50Ah	100Ah	170V
Positive Material	Sodium ion	Sodium ion	Sodium ion
Energy	1140Wh	2280Wh	3876Wh
Working Voltage	16-27.6V	16-27.6V	16-27.6V
Float charge voltage(V)	27.6V	27.6V	27.6V
Cut-off voltage(V)	16V	16V	16V
Approx. Weight	17kg	26kg	43Kg
Length	330mm	522mm	522mm
Dimension Width	173mm	240mm	240mm
Container Height	212mm	218mm	218mm
Terminal Type	M8		
Container Material	ABS		
IP Rating	Ip21		
Charging temperature(℃)	-20~60℃		
Discharge temperature(℃)	-30~60℃		
Cycles(25℃,0.5C,90%DOD)	8000 cycles		
Self Discharge	≤3% Per Month		
Max.number of series andparallel connections	8S1P		
Function	CE,UN38.3,MSDS		
Max Continuous Charge Current	50A	100A	150A
Recom. Charge Current	10A	20A	20A
Upper Limit Voltage	27.6V	27.6V	27.6V
Max Continuous Discharge Current	50A	100A	150A
Recom. Discharge Current	25A	50A	50A
Lower Limit Voltage	16V	16V	16V
Function / Can be added	WIFI、Touch Screen		



www.zvepow.com

E-mail: info@zvepow.com

Rack-mounted (low-voltage) Household energy storage Sodium ion battery

Application Scenarios

1. Household energy storage
2. Off grid backup for photovoltaics
3. Off shore backup
4. Base station

14.25V

Rack-mounted (low-voltage) Household energy storage Sodium ion battery



- Industrial standard rack installation design: suitable for 19 inch cabinets, suitable for professional use or data center scenarios
- Use Sodium ion battery for safe use and long lifespan
- Large capacity standalone: The standalone design can fully meet the high energy consumption of households.
- Stable and durable: low gravity structure, earthquake resistance, and anti tipping.
- Plug and play: No installation or debugging required, easy to place and use.
- Up to 20 parallel connections can be achieved, with flexible capacity expansion
- Compatible with multiple brands of inverters simultaneously, providing more choices
- LED displays voltage, current, and temperature, with a user-friendly interface that is easy for users to query
- Built in BMS provides multiple protection functions



Safe and reliable



Easy to install



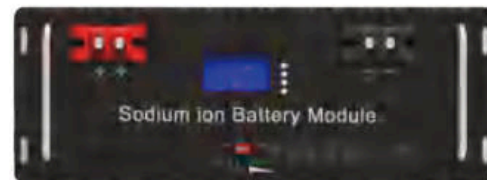
High efficiency



Scalable

Application Scenarios

1. Household energy storage
2. Off grid backup for photovoltaics
3. Off shore backup
4. Base station



Sodium ion battery NFPP

Specification

Model	ZVNRL14.25-50	ZVNRL14.25-100	ZVNRL14.25-170
Model	0.7125KWh(14.25V50AH)	1.425kwh(14.25V100AH)	2.4225kwh(14.25V170AH)
Energy	0.7125KWh	1.425kwh	2.4225KWh
Rated Capacity	50Ah	100AH	170AH
Nominal Voltage	14.25V	14.25V	14.25V
Float Voltage	17.5V		
Charging Limited Voltage	17V		
Discharge Ending Voltage	10V		
Max. Charge/Discharge Current	50A	150A	150A
MAX C Rating	1C		
Dimensions(W*D*H) mm(inches)	250*160*140mm	250*210*250mm	250*210*250mm
Weight	12kg	22kg	30kg
Max number of parallel connections	20		
Protocol	RS485/RS232/CAN		
Compatible Inverters	PYLON, Sacolar, Deye, Growatt, Sofar, Voltronic, LUX, Schneider, Afore, Sinexcel, Sorotec, GoodWe, KSTAR, Srne, Must, Megarevo, Sol-Ark, INVT, Aiswei, TBB, SAKO, Solis, SMA, Victron, SMK, BlueSun		
Display	With display screen		
Design life	More than 15 years		
Operating Temperature	Charging: -20~+60℃ Discharging: -30~+60℃ Storage:Recommend(25±5)℃		
Cycle Life	More than 8000 cycles @ 90% DOD @25		
IP Class	IP21		
Warranty	5years		
Self Discharge	≤3% Per Month		
Certifications	CE, UN38.3, MSDS		
Function / Can be added	WIFI、Touch Screen		

25.65V

Rack-mounted (low-voltage) Household energy storage Sodium ion battery



- Industrial standard rack installation design: suitable for 19 inch cabinets, suitable for professional use or data center scenarios
- Use Sodium ion battery for safe use and long lifespan
- Large capacity standalone: The standalone design can fully meet the high energy consumption of households.
- Stable and durable: low gravity structure, earthquake resistance, and anti tipping.
- Plug and play: No installation or debugging required, easy to place and use.
- Up to 20 parallel connections can be achieved, with flexible capacity expansion
- Compatible with multiple brands of inverters simultaneously, providing more choices
- LED displays voltage, current, and temperature, with a user-friendly interface that is easy for users to query
- Built in BMS provides multiple protection functions



Safe and reliable



Easy to install



High efficiency



Scalable

Application Scenarios

1. Household energy storage
2. Off grid backup for photovoltaics
3. Off shore backup
4. Base station



Sodium ion battery NFPP

Specification

Model	ZVNRL25.65-50	ZVNRL25.65-100	ZVNRL25.65-170
Model	1.2825KWh(25.65V50AH)	2.56kwh(25.65V100AH)	4.3605kwh(25.65V170AH)
Energy	1.2825KWh	2.56kwh	4.3605KWh
Rated Capacity	50Ah	100AH	170Ah
Nominal Voltage	25.65V		
Float Voltage	31.5V		
Charging Limited Voltage	31V		
Discharge Ending Voltage	18V		
Max. Charge/ Discharge Current	50A	150A	150A
MAX C Rating	1C		
Dimensions(W*D*H) mm(inches)	450*280*140mm	440*420*250mm	440*420*250mm
Weight	23kg	46kg	60kg
Max number of parallel connections	20		
Protocol	RS485/RS232/CAN		
Compatible Inverters	PYLON, Sacolar, Deye, Growatt, Sofar, Voltronic, LUX, Schneider, Afore, Sinexcel, Sorotec, GoodWe, KSTAR, Srne, Must, Megarevo, Sol-Ark, INVT, Aiswei, TBB, SAKO, Solis, SMA, Victron, SMK, BlueSun		
Display	With display screen		
Design life	More than 15 years		
Operating Temperature	Charging: -20~+60℃ Discharging: -30~+60℃ Storage:Recommend(25±5)℃		
Cycle Life	More than 8000 cycles @ 90% DOD @25		
IP Class	IP21		
Warranty	5years		
Self Discharge	≤3% Per Month		
Certifications	CE,UN38.3,MSDS		
Function / Can be added)	WIFI、Touch Screen		

48.45V

Rack-mounted (low-voltage) Household energy storage Sodium ion battery



- Industrial standard rack installation design: suitable for 19 inch cabinets, suitable for professional use or data center scenarios
- Use Sodium ion battery for safe use and long lifespan
- Large capacity standalone: The standalone design can fully meet the high energy consumption of households.
- Stable and durable: low gravity structure, earthquake resistance, and anti tipping.
- Plug and play: No installation or debugging required, easy to place and use.
- Up to 20 parallel connections can be achieved, with flexible capacity expansion
- Compatible with multiple brands of inverters simultaneously, providing more choices
- LED displays voltage, current, and temperature, with a user-friendly interface that is easy for users to query
- Built in BMS provides multiple protection functions



Safe and reliable



Easy to install



High efficiency



Scalable

Application Scenarios

1. Household energy storage
2. Off grid backup for photovoltaics
3. Off shore backup
4. Base station



Sodium ion battery NFPP

Specification

Model	ZVNRL48.45-50	ZVNRL48.45-100	ZVNRL48.45-170
Model	2.4225kwh(48.45V50AH)	4.845kwh(48.45V100AH)	8.2365kwh(48.45V170AH)
Energy	2.4225KWh	4.845KWh	8.2365KWh
Rated Capacity	50Ah	100Ah	170Ah
Nominal Voltage	48.45V		
Float Voltage	59.5V		
Charging Limited Voltage	59V		
Discharge Ending Voltage	34V		
Max. Charge/ Discharge Current	50A	100A	150A
MAX C Rating	1C		
Dimensions(W*D*H) mm(inches)	560*450*140mm	700*482*245mm	750*440*250mm
Weight	45kg	77kg	115kg
Max number of parallel connections	20		
Protocol	RS485/RS232/CAN		
Compatible Inverters	PYLON, Sacolar, Deye, Growatt, Sofar, Voltronic, LUX, Schneider, Afore, Sinexcel, Sorotec, GoodWe, KSTAR, Srne, Must, Megarevo, Sol-Ark, INVT, Aiswei, TBB, SAKO, Solis, SMA, Victron, SMK, BlueSun		
Display	With display screen		
Design life	More than 15 years		
Operating Temperature	Charging: -20~+60℃ Discharging: -30~+60℃ Storage:Recommend(25±5)℃		
Cycle Life	More than 8000 cycles @ 90% DOD @25		
IP Class	IP21		
Warranty	5years		
Self Discharge	≤3% Per Month		
Certifications	CE,UN38.3,MSDS		
Function / Can be added)	WIFI、Touch Screen		



www.zvepow.com



E-mail:info@zvepow.com



Rack mounted (High voltage) Household energy storage Sodium ion battery

Application Scenarios

1. Household energy storage
2. Off grid backup for photovoltaics
3. Offshore backup

48.45V

Rack mounted (High voltage) Household energy storage sodium ion battery



- High efficiency of high-voltage platform: Supports high-voltage DC output (such as 100V~1000V), reduces current transmission loss, and improves system efficiency by 5%~10%.
- Industrial level integrated design: Compatible with standard 19 inch cabinets, supporting multiple parallel groups, suitable for high load scenarios such as data centers and small businesses.
- High power density: A single cabinet can achieve higher energy storage (such as 7.2675kwh/145.35V-38.76kwh/775.2V), saving land area. Support 6 parallel cabinets.
- Intelligent temperature control and safety: Multi layer BMS protection (overvoltage/overcurrent/insulation monitoring)+forced cooling and heat dissipation to ensure stable operation of the high-voltage system.
- Professional level management: Supports SNMP/Modbus protocol and can connect to energy management systems (EMS) to achieve remote monitoring and scheduling.



Safe and reliable



Easy to install



High efficiency



Scalable

Application Scenarios

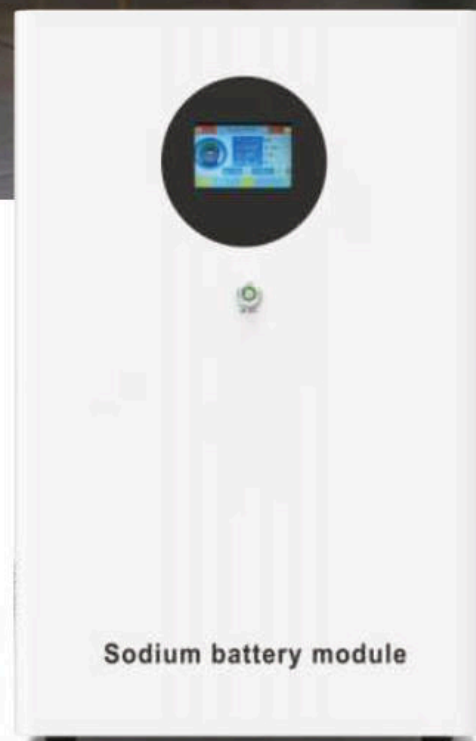
1. Household energy storage
2. Off grid backup for photovoltaics
3. Offshore backup



Sodium ion battery NFPP

Specification

Model	ZVNRH48.45-50	ZVNRH48.45-100	ZVNRH48.45-170
Model	2.4225kwh(48.45V50AH)	4.845kwh(48.45V100AH)	8.2365kwh(48.45V170AH)
Energy	2.4225KWh	4.845KWh	8.2365kwh
Rated Capacity	50A	100Ah	170AH
Nominal Voltage	48.45V		
Float Voltage	59.5V		
Charging Limited Voltage	59V		
Discharge Ending Voltage	34V		
Battery Module Quantity(pcs)	3-16		
System Nominal Voltage	100V-1000V		
System Operating Voltage	100V-1000V		
System Energy	7.2675kwh/145.35V -38.76kwh/775.2V	14.535kwh/145.35V -77.52kwh/775.2V	24.7095kwh/145.35V -131.784kwh/775.2V
Discharge & Charge Current (Amps, Standard)	100A		
Efficiency (% at 0.5C-rate)	90-95%		
Dimensions(W*D*H) mm(inches)	560*450*140mm	700*482*245mm	750*440*250mm
Weight	45kg	77kg	115kg
Protocol	RS485/CAN		
Design life	More than 15 years		
Compatible Inverters	PYLON, Sacolar, Deye, Growatt, Sofar, Voltronic, LUX, Schneider, Afore, Sinexcel, Sorotec, GoodWe, KSTAR, Srne, Must, Megarevo, Sol-Ark, INVT, Aiswei, TBB, SAKO, Solis, SMA, Victron, SMK, BlueSun		
Installation Location	pack Mounting		
Altitude	≤2000m		
Humidity	5~85%RH		
Operation Temperature Range	Charge:0~50℃/ Discharge: -0~50℃		
Storage Temperature Range	10~35℃		
Cycle Life	25±2℃,0.5C/0.5C,EOL70%≥6000		
IP Class	IP21		
Warranty	5years		
Certifications	CE,UN38.3,MSDS		
Function(Can be added)	WIFI Touch Screen		



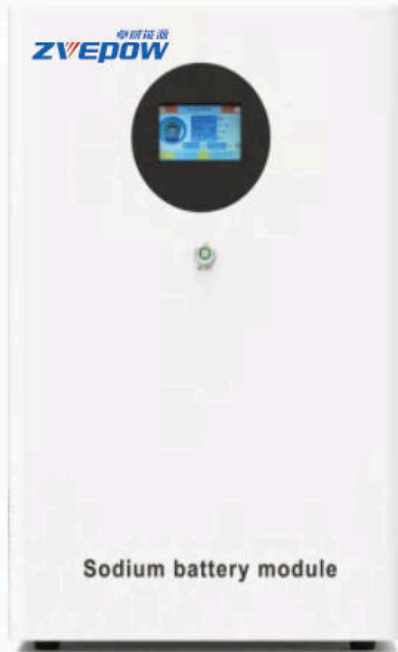
Wall-mounted Household energy storage Sodium ion battery

Application Scenarios

1. Household energy storage
2. Off grid backup for photovoltaics
3. Offshore backup

14.25V

Wall-mounted (low-voltage) Household energy storage Sodium ion battery



- Wall mounted minimalist design: aesthetically integrated and seamlessly integrated with the home environment.
- Space saving: Installed against the wall, suitable for small or limited space households.
- Flexible installation: Supports multiple indoor/outdoor scenarios without the need for additional racks.
- Compatible with multiple brands of inverters simultaneously, providing more choices
- LED display for voltage, current, and temperature, user-friendly interface for easy user queries
- Built in BMS provides multiple protection functions
- Stable and safe: low gravity structure, anti tipping design;
- Plug and play: No need for complex installation, it can be used on the ground (such as in garages, basements, etc.).
- Flexible expansion: Up to 20 parallel connections can be achieved, with flexible capacity expansion.
- Strong environmental adaptability: Working in a wide temperature range (-20 °C~60 °C), suitable for harsh environments.



Safe and reliable



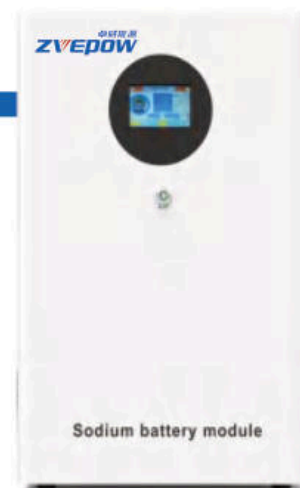
Easy to install



High efficiency



Scalable



Application Scenarios

1. Household energy storage
2. Off grid backup for photovoltaics
3. Offshore backup

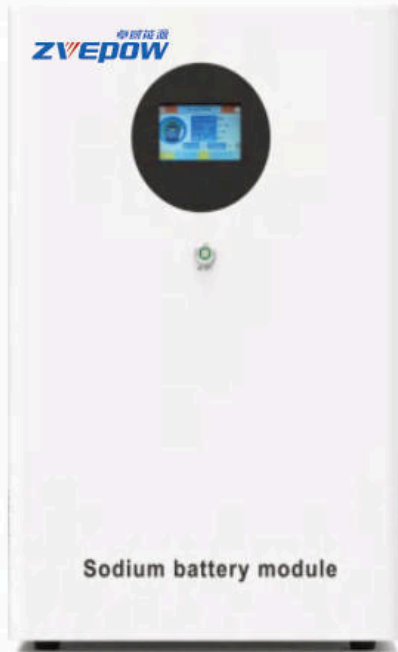
Sodium ion battery NFPP

Specification

Model	ZVNWL14.25-50	ZVNWL14.25-100	ZVNWL14.25-170
Model	0.7125KWh(14.25V50AH)	1.425kwh(14.25V100AH)	2.4225kwh(14.25V170AH)
Energy	0.7125KWh	1.425kwh	2.4225KWh
Rated Capacity	50Ah	100AH	170AH
Nominal Voltage	14.25V		
Float Voltage	17.5V		
Charging Limited Voltage	17V		
Discharge Ending Voltage	10V		
Max. Charge/ Discharge Current	50A	50A	150A
MAX C Rating	1C		
Dimensions(W*D*H) mm(inches)	330*250*140mm	420*250*160mm	420*250*250mm
Weight	12kg	24kg	30kg
Max number of parallel connections	20		
Protocol	RS485/RS232/CAN		
Compatible Inverters	PYLON, Sacolar, Deye, Growatt, Sofar, Voltronic, LUX, Schneider, Afore, Sinexcel, Sorotec, GoodWe, KSTAR, Srne, Must, Megarevo, Sol-Ark, INVT, Aiswei, TBB, SAKO, Solis, SMA, Victron, SMK, BlueSun		
Display	With display screen		
Design life	More than 15 years		
Operating Temperature	Charging: -20~+60℃ Discharging: -30~+60℃ Storage:Recommend(25±5)℃		
Cycle Life	More than 8000 cycles @ 90% DOD @25		
IP Class	IP21		
Warranty	5years		
Self Discharge	≤3% Per Month		
Certifications	CE, UN38.3, MSDS		
Function / Can be added)	WIFI、Touch Screen		

25.65V

Wall-mounted (low-voltage) Household energy storage Sodium ion battery



- Wall mounted minimalist design: aesthetically integrated and seamlessly integrated with the home environment.
- Space saving: Installed against the wall, suitable for small or limited space households.
- Flexible installation: Supports multiple indoor/outdoor scenarios without the need for additional racks.
- Compatible with multiple brands of inverters simultaneously, providing more choices
- LED display for voltage, current, and temperature, user-friendly interface for easy user queries
- Built in BMS provides multiple protection functions
- Stable and safe: low gravity structure, anti tipping design;
- Plug and play: No need for complex installation, it can be used on the ground (such as in garages, basements, etc.).
- Flexible expansion: Up to 20 parallel connections can be achieved, with flexible capacity expansion.
- Strong environmental adaptability: Working in a wide temperature range (-20 °C~60 °C), suitable for harsh environments.



Safe and reliable



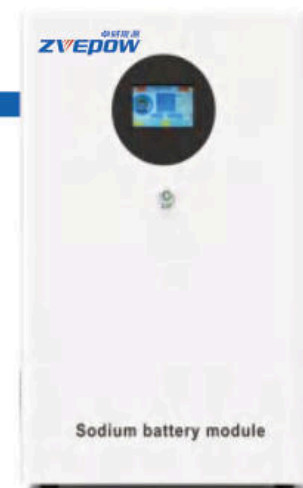
Easy to install



High efficiency



Scalable



Application Scenarios

1. Household energy storage
2. Off grid backup for photovoltaics
3. Offshore backup

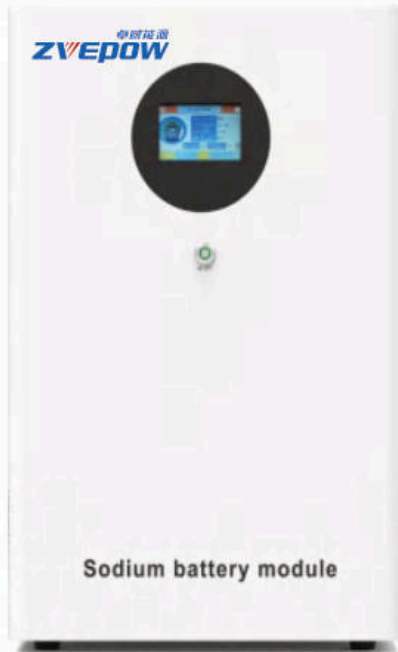
Sodium ion battery NFPP

Specification

Model	ZVNWL25.65-50	ZVNWL25.65-100	ZVNWL25.65-170
Model	1.2825KWh(25.65V50AH)	2.565kwh(25.65V100AH)	4.3605kwh(25.65V170AH)
Energy	1.2825KWh	2.565KWh	4.3605KWh
Rated Capacity	50Ah	100AH	170AH
Nominal Voltage	25.65V		
Float Voltage	31.5V		
Charging Limited Voltage	31V		
Discharge Ending Voltage	18V		
Max. Charge/ Discharge Current	50A	50A	150A
MAX C Rating	1C		
Dimensions(W*D*H) mm(inches)	500*280*140mm	500*420*160mm	500*420*250mm
Weight	23kg	46kg	60kg
Max number of parallel connections	20		
Protocol	RS485/RS232/CAN		
Compatible Inverters	PYLON, Sacolar, Deye, Growatt, Sofar, Voltronic, LUX, Schneider, Afore, Sinexcel, Sorotec, GoodWe, KSTAR, Srne, Must, Megarevo, Sol-Ark, INVT, Aiswei, TBB, SAKO, Solis, SMA, Victron, SMK, BlueSun		
Display	With display screen		
Design life	More than 15 years		
Operating Temperature	Charging: -20~+60℃ Discharging: -30~+60℃ Storage:Recommend(25±5)℃		
Cycle Life	More than 8000 cycles @ 90% DOD @25		
IP Class	IP21		
Warranty	5years		
Self Discharge	≤3% Per Month		
Certifications	CE,UN38.3,MSDS		
Function / Can be added)	WIFI、Touch Screen		

48.45V

Wall-mounted (low-voltage) Household energy storage Sodium ion battery



- Wall mounted minimalist design: aesthetically integrated and seamlessly integrated with the home environment.
- Space saving: Installed against the wall, suitable for small or limited space households.
- Flexible installation: Supports multiple indoor/outdoor scenarios without the need for additional racks.
- Compatible with multiple brands of inverters simultaneously, providing more choices
- LED display for voltage, current, and temperature, user-friendly interface for easy user queries
- Built in BMS provides multiple protection functions
- Stable and safe: low gravity structure, anti tipping design;
- Plug and play: No need for complex installation, it can be used on the ground (such as in garages, basements, etc.).
- Flexible expansion: Up to 20 parallel connections can be achieved, with flexible capacity expansion.
- Strong environmental adaptability: Working in a wide temperature range (-20 °C~60 °C), suitable for harsh environments.



Safe and reliable



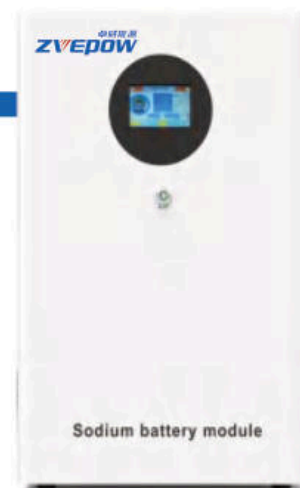
Easy to install



High efficiency



Scalable



Application Scenarios

1. Household energy storage
2. Off grid backup for photovoltaics
3. Offshore backup

Sodium ion battery NFPP

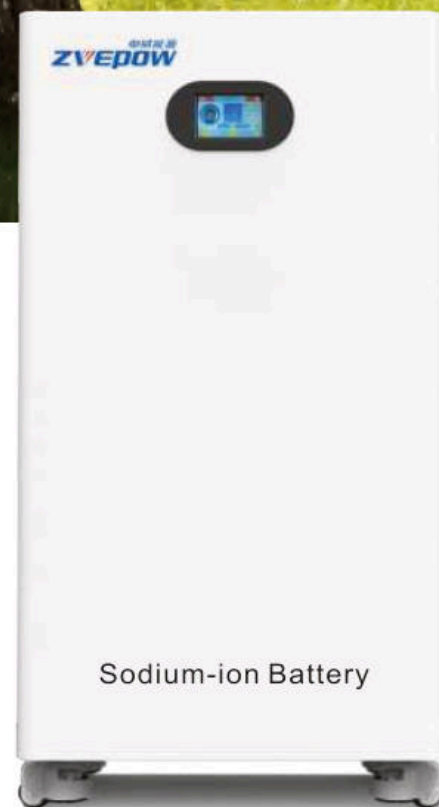
Specification

Model	ZVNWL48.45-50	ZVNWL48.45-100	ZVNWL48.45-170
Model	2.4225kwh(48.45V50AH)	4.845kwh(48.45V100AH)	8.2365kwh(48.45V170AH)
Energy	2.4225KWh	4.845kwh	8.2365KWh
Rated Capacity	50Ah	100AH	170AH
Nominal Voltage	48.45V		
Float Voltage	59.5V		
Charging Limited Voltage	59V		
Discharge Ending Voltage	34V		
Max. Charge/ Discharge Current	50A	150A	150A
MAX C Rating	1C		
Dimensions(W*D*H) mm(inches)	560*450*140mm	830*500*160mm	840*500*250mm
Weight	45kg	90kg	120kg
Max number of parallel connections	20		
Protocol	RS485/RS232/CAN		
Compatible Inverters	PYLON, Sacolar, Deye, Growatt, Sofar, Voltronic, LUX, Schneider, Afore, Sinexcel, Sorotec, GoodWe, KSTAR, Srne, Must, Megarevo, Sol-Ark, INVT, Aiswei, TBB, SAKO, Solis, SMA, Victron, SMK, BlueSun		
Display	With display screen		
Design life	More than 15 years		
Operating Temperature	Charging: -20~+60℃ Discharging: -30~+60℃ Storage:Recommend(25±5)℃		
Cycle Life	More than 8000 cycles @ 90% DOD @25		
IP Class	IP21		
Warranty	5years		
Self Discharge	≤3% Per Month		
Certifications	CE,UN38.3,MSDS		
Function / Can be added)	WIFI、Touch Screen		



www.zvepow.com

E-mail:info@zvepow.com



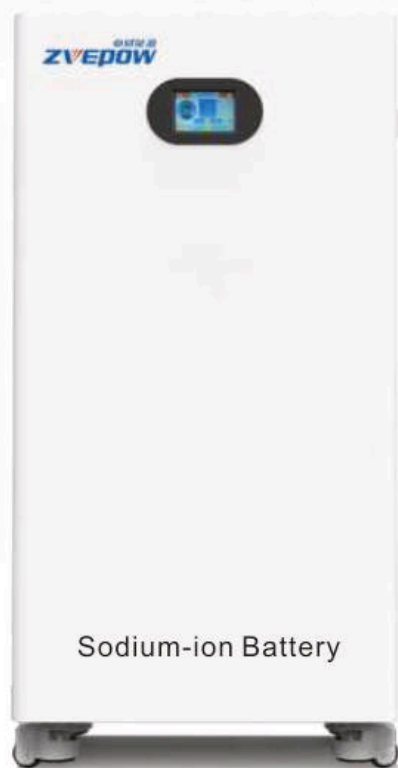
Floor-standing upright Household energy storage Sodium ion battery

Application Scenarios

1. Household energy storage
2. Off grid backup for photovoltaics
3. Offshore backup

48.45V

Floor-standing upright (low-pressure) Household energy storage Sodium ion battery



Sodium-ion Battery

- Floor standing minimalist design: aesthetically integrated and seamlessly integrated with the home environment.
- Space saving: Installed against the wall, suitable for small or limited space households.
- Flexible installation: Supports multiple indoor/outdoor scenarios without the need for additional racks.
- Compatible with multiple brands of inverters simultaneously, providing more choices
- LED display for voltage, current, and temperature, user-friendly interface for easy user queries
- Built in BMS provides multiple protection functions
- Large capacity design: A single device can provide high-energy storage (such as 2.4225kWh or more), suitable for households with high electricity consumption or remote scenes.
- Stable and safe: low gravity structure, anti tipping design;
- Plug and play: No need for complex installation, it can be used on the ground (such as in garages, basements, etc.).
- Flexible expansion: Up to 20 parallel connections can be achieved, with flexible capacity expansion.
- Strong environmental adaptability: Working in a wide temperature range (-20 °C~60 °C), suitable for harsh environments.



Safe and reliable



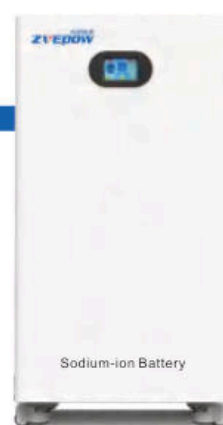
Easy to install



High efficiency



Scalable



Sodium-ion Battery

Application Scenarios

1. Household energy storage
2. Off grid backup for photovoltaics
3. Offshore backup

Sodium ion battery NFPP

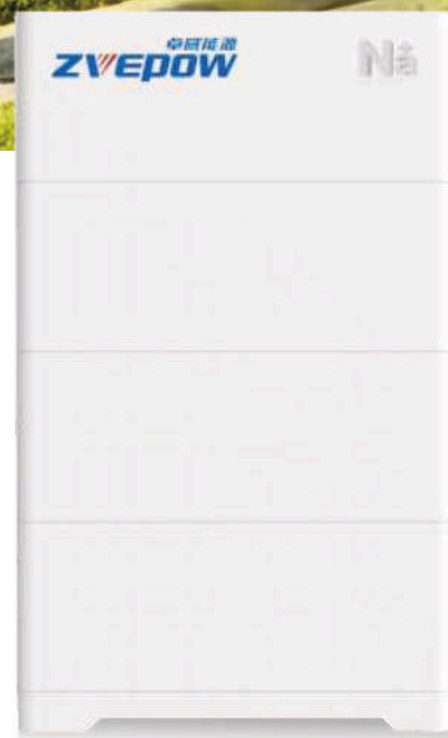
Specification

Model	ZVNSL48.45-50	ZVNSL48.45-100	ZVNSL48.45-170
Model	2.4225kwh(48.45V50AH)	(48.45V100AH)	(48.45V170AH)
Energy	2.4225KWh	4.845KWh	8.2365KWh
Rated Capacity	50Ah	100Ah	170Ah
Nominal Voltage	48.45V		
Float Voltage	59.5V		
Charging Limited Voltage	59V		
Discharge Ending Voltage	34V		
Max. Charge/Discharge Current	50A	100A	150A
MAX C Rating	1C	1C	0.9C
Dimensions(W*D*H) mm(inches)	560*450*140mm	700*482*245mm	840*500*250mm
Weight	45kg	90kg	120kg
Max number of parallel connections	20		
Protocol	RS485/RS232/CAN		
Compatible Inverters	PYLON, Sacolar, Deye, Growatt, Sofar, Voltronic, LUX, Schneider, Afore, Sinexcel, Sorotec, GoodWe, KSTAR, Srne, Must, Megarevo, Sol-Ark, INVT, Aiswei, TBB, SAKO, Solis, SMA, Victron, SMK, BlueSun		
Display	With display screen		
Design life	More than 15 years		
Operating Temperature	Charging: -20~+60°C Discharging: -30~+60°C Storage:Recommend(25±5)°C		
Cycle Life	More than 8000 cycles @ 90% DOD @25		
IP Class	IP21		
Warranty	5years		
Self Discharge	≤3% Per Month		
Certifications	CE, UN38.3, MSDS		
Function / Can be added)	WIFI、Touch Screen		



www.zvepow.com

E-mail: info@zvepow.com



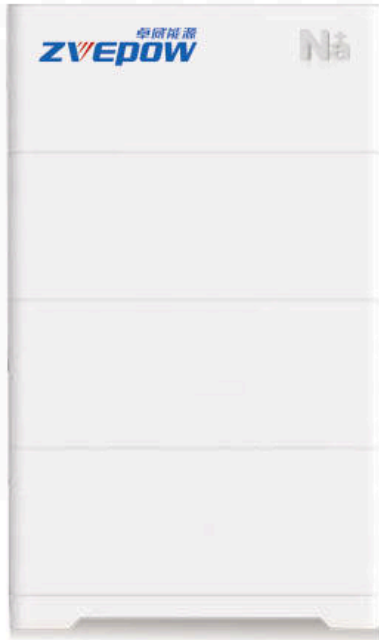
Stacked (low-voltage) Household energy storage Sodium ion battery

Application Scenarios

1. Household energy storage
2. Off grid backup for photovoltaics
3. Offshore backup

48.45V

Stacked (low-voltage) Household energy storage Sodium ion battery



- Stackable design and minimalist design: beautiful integration, easy installation.
- Sodium ion battery, the safest and longest cycle life
- Modular expansion: Multiple devices can be vertically stacked to increase capacity as needed. Up to 20 parallel connections can be achieved, with flexible capacity expansion.
- High density energy storage: Single module has high energy density, suitable for moderate electricity demand.
- Compatible with multiple mainstream inverters
- Equipped with high-power emergency backup and off grid functions
- Low cost upgrade: No need to replace the host for later expansion.



Safe and reliable



Easy to install



High efficiency



Scalable

Application Scenarios

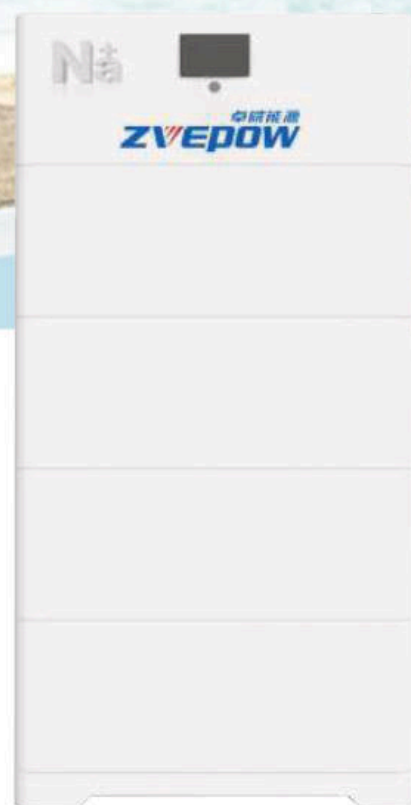
1. Household energy storage
2. Off grid backup for photovoltaics
3. Offshore backup



Sodium ion battery NFPP

Specification

Model	ZVNSSL48.45-50	ZVNSSL48.45-100	ZVNSSL48.45-170
Model	2.4225kwh(48.45V50AH)	4.845kwh(48.45V100AH)	8.2365kwh(48.45V170AH)
Energy	2.4225KWh	4.845KWh	8.2365KWh
Rated Capacity	50Ah	100Ah	170Ah
Nominal Voltage	48.45V		
Float Voltage	59.5V		
Charging Limited Voltage	59V		
Discharge Ending Voltage	34V		
Battery module capacity (AH)	50AH	100AH	170AH
Max number of parallel connections	Maximum 20 parallel 2.4225kwh~48.45kwh	Maximum 20 parallel 4.845kwh~96.9kwh	Maximum 20 parallel 8.2368kwh~164.73kwh
Discharge & Charge Current (Amps, Standard)	50A		
Discharge & Charge Current (Amps, Rated)	100A		
Discharge & Charge Current (Amps, Max. 15min)	150A	200A	150A
Efficiency (% at 0.5C-rate)	90-95%		
Dimensions (W*D*H) mm (inches)	560*450*140mm	700*482*245mm	840*500*250mm
Weight	45kg	77kg	120kg
Protocol	RS485/RS232/CAN		
Compatible Inverters	PYLON, Sacolar, Deye, Growatt, Sofar, Voltronic, LUX, Schneider, Afore, Sinexcel, Sorotec, GoodWe, KSTAR, Srne, Must, Megarevo, Sol-Ark, INVT, Aiswei, TBB, SAKO, Solis, SMA, Victron, SMK, BlueSun		
Display	With display screen		
Design life	More than 15 years		
Operating Temperature	Charge: 0~50℃ / Discharge: -10~50℃		
Storage Temperature Range	-20~+60℃, Recommend: ≤60±25%RH storage humidity		
Cycle Life	More than 8000 cycles @ 90% DOD @25		
IP Class	IP21		
Warranty	5years		
Self Discharge	≤3% Per Month		
Certifications	CE, UN38.3, MSDS		
Function / Can be added)	WIFI、Touch Screen		



Stacking (High voltage) Household energy storage sodium ion battery

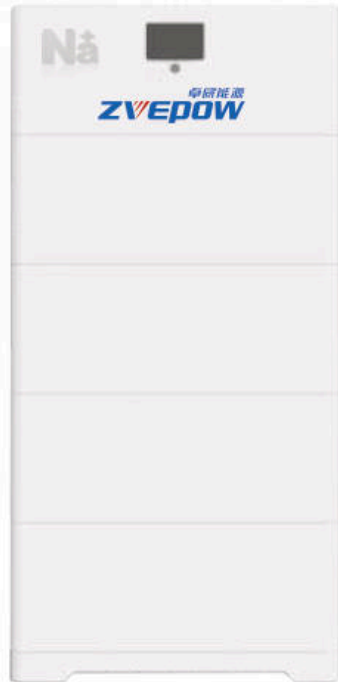
Application Scenarios

1. Household energy storage
2. Off grid backup for photovoltaics
3. Offshore backup



48.45V

Stacking (High voltage) Household energy storage sodium ion battery



- High efficiency of high-voltage platform: Supports high-voltage DC output (such as 200V~600V), reduces current transmission loss, and improves system efficiency by 5%~10%.
- Stackable design and minimalist design: beautiful integration, easy installation. Supports multiple parallel groups, suitable for high load scenarios such as data centers and small businesses.
- High power density: A single cabinet can achieve higher energy storage (such as 7.2675kwh/145.35V--38.76kwh/775.2V), saving land area. Supports 6 parallel cabinets.
- Intelligent temperature control and safety: Multi layer BMS protection (overvoltage/overcurrent/insulation monitoring)+forced cooling and heat dissipation to ensure stable operation of the high-voltage system.
- Professional level management: Supports SNMP/Modbus protocol, can connect to energy management system (EMS), and achieve remote monitoring and scheduling.



Safe and reliable



Easy to install



High efficiency



Scalable

Application Scenarios

1. Household energy storage
2. Off grid backup for photovoltaics
3. Offshore backup



Sodium ion battery NFPP

Specification

Model	ZVNSSH48.45-50	ZVNSSH48.45-100	ZVNSSH48.45-170
Model	2.4225kwh(48.45V50AH)	4.845kwh(48.45V100AH)	8.2365kwh(48.45V170AH)
Energy	2.4225KWh	4.845KWh	8.2365KWh
Rated Capacity	50Ah	100Ah	170Ah
Nominal Voltage	48.45V		
Float Voltage	59.5V		
Charging Limited Voltage	59V		
Discharge Ending Voltage	34V		
Battery Module Quantity(pcs)	3-16		
System Nominal Voltage	100V-1000V		
System Operating Voltage	100V-1000V		
System Energy	7.2675kwh/145.35V -38.76kwh/775.2V	14.535kwh/145.35V -77.52kwh/775.2V	24.7095kwh/145.35V -131.784kwh/775.2V
Discharge & Charge Current (Amps, Standard)	100A		
Efficiency (% at 0.5C-rate)	90-95%		
Dimensions(W*D*H) mm(inches)	560*450*140mm	750*440*245mm	750*440*250mm
Weight	45kg	110kg	115kg
Protocol	RS485/CAN		
Design life	More than 15 years		
Compatible Inverters	PYLON, Sacolar, Deye, Growatt, Sofar, Voltronic, LUX, Schneider, Afore, Sinexcel, Sorotec, GoodWe, KSTAR, Srne, Must, Megarevo, Sol-Ark, INVT, Aiswei, TBB, SAKO, Solis, SMA, Victron, SMK, BlueSun		
Installation Location	pack Mounting		
Altitude	≤2000m		
Humidity	5~85%RH		
Operation Temperature Range	Charge:0~50℃/ Discharge: -10~50℃		
Storage Temperature Range	10~35℃		
Cycle Life	25±2℃,0.5C/0.5C,EOL70%≥6000		
IP Class	IP21		
Warranty	5years		
Certifications	CE,UN38.3,MSDS		
Function(Can be added)	WIFI Touch Screen		



Industrial and commercial energy storage products

Application Scenarios

This product is widely used in industrial, commercial, and large-scale energy storage scenarios, such as peak shaving and valley filling, photovoltaic energy storage, peak shaving and frequency regulation, microgrids, and emergency backup power applications.

SIB ESS Cabinet-105KW/148KWh sodium ion battery



This scheme is a 105KW/148KWh liquid-cooled outdoor cabinet. This system has perfect battery temperature, voltage and current protection functions. It can automatically monitor the operating state of the system, calculate the charging and discharging voltage/current of the system, and provide it to the supporting energy storage bidirectional converter (PCS) and energy management system (EMS) through the communication interface. It has perfect thermal management functions, monitors battery voltage and temperature, ensures that the battery cell temperature and voltage operate within a safe range, and ensures the safety of the system.



Safe and reliable



Easy to install



High efficiency



Scalable

Application Scenarios

- 1. Household energy storage
- 2. Off grid backup for photovoltaics
- 3. Offshore backup



Sodium ion battery NFPP

Battery technical parameters		Battery Rack	Battery module
Typical Voltage / Capacity	803.7V/185Ah		133.95V/185Ah
Cell Spec	NFPP-Blade Cell-J7N0700-S06-185Ah-2.85V(1.5-3.3V)		
Engery	148KWh		24.78KWh
Voltage range	423~930.6V		70.5~155.1V
Combination	282S1P		47S1P
Weight	2800kg		320kg
Dimension	1050*1365*2450(mm)		810*1160*260(mm)
Cooling methode	Liquid cooling		
Operating temperature	-30~55°C		
Container specification			
Charge and discharge rate	0.5P		
Discharge depth	95%		
Relative humidity	0-90% without condensation		
Cell combination mode	282S1P		
Insulation standard	Battery box insulation resistance >500MO (1000VDC).		
Withstand voltage standard	2830VDC, no breakdown phenomenon, leakage current <20mA (starting from50% of rated voltage).		
Fire extinguishing system	Aerosol		
Communication mode	Liquid cooling		
Protention grade	IP54		

SIB ESS Cabinet-100KW/116KWh sodium ion battery



This scheme is a 100KW/116KWh liquid-cooled outdoor cabinet. This system has perfect battery temperature, voltage and current protection functions. It can automatically monitor the operating state of the system, calculate the charging and discharging voltage/current of the system, and provide it to the supporting energy storage bidirectional converter (PCS) and energy management system (EMS) through the communication interface. It has perfect thermal management functions, monitors battery voltage and temperature, ensures that the battery cell temperature and voltage operate within a safe range, and ensures the safety of the system.

 Safe and reliable

 Easy to install

 High efficiency

 Scalable

Application Scenarios

- 1. Household energy storage
- 2. Off grid backup for photovoltaics
- 3. Offshore backup



Sodium ion battery NFPP

Battery technical parameters	Battery Rack
Cell type	MC-170-16S1P
Typical Voltage / Capacity	2.85V/170Ah
Integrated style	1P16S
Rated voltage	48V
Voltage Range	30-56V
Rated Volume	7.75kWh
Max. continuous charge current	85A
Max. continuous discharge current	85A
Weight (Kg)	Approx. 100
Dimension (W*D*H)	516*792*235mm
Operating Temperature range[°C]	Charging: 0°C~ 50°C; Discharging: -20~60°
Communication	CCAN/RS485
Heat Management	Natural Cooling

Battery technical parameters	Battery Rack
Cell module	2.85V/170Ah
Module type	48V/7.75kWh (1P16S)
Battery Cabinet	720V/116kWh (26S)
Working Voltage	450~840V
Nominal Power	100KW
Heat Management	Natural Cooling, Air-conditioner
Storage Temperature	-40~60°C
Temperature Control System	Air-conditioner + insulating layer
Control Part	HV Box
Fire Extinguishing System	fire fighting equipment, induction part and software part
Screen	Yes
Protection Level	IP54
Dimension(D*W*H)	1800*1500*2300mm

SIB ESS Container-1.45MW/2.23MWh
sodium ion battery



ESSIntroduction:

This scheme is to configure an energy storage system with a nominal capacity of 1.45MW/2.23MWh. The cooling method of the container is liquid cooling. The ESS includes battery management system (BMS), fire protection system, thermal management system (including temperature and humidity control), power cables and communication cables in the container and other related supporting facilities, PCS and related supporting facilities, energy management system (EMS), energy storage power supply system, etc.



Safe and reliable



Easy to install



High efficiency



Scalable

Application Scenarios

- 1. Household energy storage
- 2. Off grid backup for photovoltaics
- 3. Offshore backup



Sodium ion battery NFPP

Battery technical parameters		Battery System	Battery Rack	Battery module
Typical Voltage / Capacity		1205.55V/1850Ah	1205.55V/185Ah	133.95V/185Ah
Cell Spec		NFPP-Blade Cell-J7N0700-S06-185Ah-2.85V(1.5-3.3V)		
Engery	2.23MWh	223KWh	24.78KWh	
Voltage range	634.5 - 1395.9V	634.5~1395.9V	70.5~155.1V	
Combination	423S10P	423S1P	47S1P	
Weight	36.7t	3670kg	320kg	
Dimension	6038*2896*2550(mm)	1030*1370*2630(mm)	810*1160*260(mm)	
Cooling methode		Liquid cooling		
Operating temperature	-30~55°C			
Container specification				
Charge and discharge rate		0.5P		
Discharge depth		95%		
Relative humidity		0-90% without condensation		
Cell combination mode		47S1P*9P		
Insulation standard		Battery box insulation resistance >500MO (1000VDC).		
Withstand voltage standard		2830VDC, no breakdown phenomenon, leakage current <20mA (starting from50% of rated voltage).		
Fire extinguishing system		Perfluorohexanonefirefighting+flammablegasdetection +exhaust+Waterfireinterface,PACKFire(aerosol)		
Communication mode		RS485/CAN/Ethernet		
Protention grade		IP54		



www.zvepow.com



E-mail:info@zvepow.com