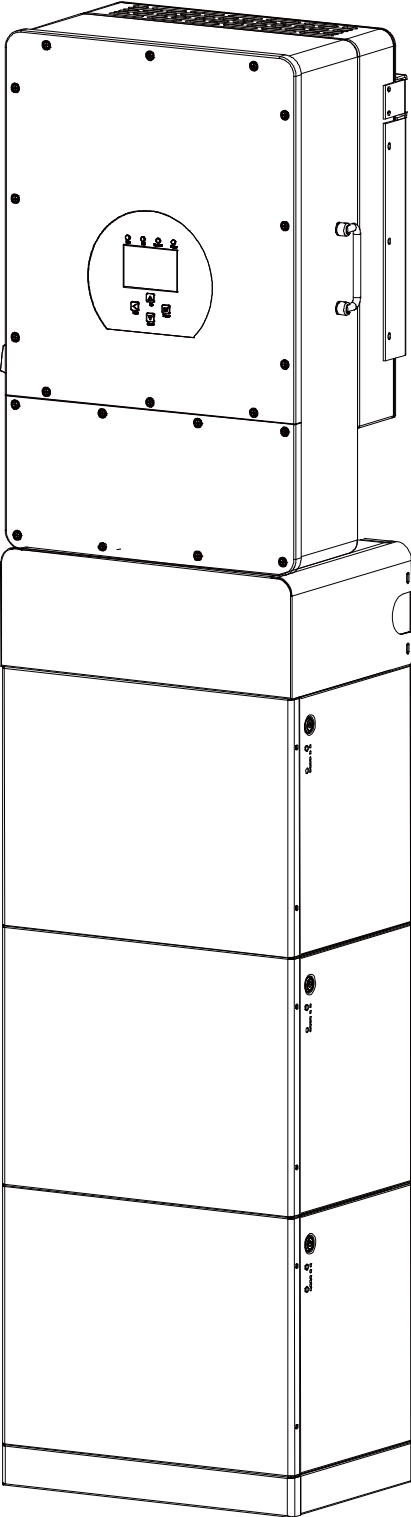

User Manual



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1. Introduction

1.1 Brief Introduction

This manual will provide detailed product information and installation. Please read it carefully before use this product, and store it in a place that is convenient for installation, operation, and maintenance personnel. The manual is subject to change without notice.

1.2 Symbol Description

Symbol	Description
	Caution, risk of electric shock
	Heavy enough may cause severe injury
	Keep the battery away from open flame or ignition sources
	Keep the battery away from children
	Do not dispose of the product with household waste
	Recycling
	Read this manual before installation and operation

1.3 Battery Handling Guide

- Use the battery pack only as directed.
- If the battery defective, appears cracked, broken or otherwise damaged, or fails to operate, contact your distributor immediately.
- Do not attempt to open, disassemble, repair, tamper with, or modify the battery. The battery pack is not user serviceable.
- To protect the battery and its components from damage when transporting, handle with care.
- Do not subject it to any strong force.
- Do not insert foreign objects into any part of the battery pack.
- Do not use cleaning solvents to clean the battery.
- The battery shall not be connected directly to SELV circuit

1.4 Response to Emergency Situations

The battery is designed with multiple safety strategies to prevent hazards resulting from failures.

1.4.1 Leaking batteries

If the battery pack leaks electrolyte, avoid contact with the leaking liquid or gas. Electrolyte is corrosive and contact may cause skin irritation and chemical burns. If one is exposed to the leaked substance, do these actions:

Inhalation: Evacuate the contaminated area, and seek medical attention immediately.

Eyes contact: Rinse eyes with flowing water for 15 minutes, and seek medical attention immediately.

Skin contact: Wash the affected area thoroughly with soap and water, and seek medical attention immediately.

Ingestion: Induce vomiting as soon as possible, and seek medical attention immediately.

1.4.2 Fire

In case of a fire, make sure that an ABC or carbon dioxide extinguisher is nearby and does not use water to extinguish the fire.



WARNING

The battery pack may catch fire when heated above 130°C. If a fire breaks out where the battery is installed, do these actions:

1. Extinguish the fire before the battery catches fire.
2. If the battery has caught fire, do not try to extinguish the fire. Evacuate people immediately.



WARNING

If the battery catches fire, it will produce poisonous gases. Do not approach.

1.4.3 Wet battery

If the battery is wet or submerged in water, do not try to access it. Contact your distributor for technical assistance.

1.4.4 Damaged battery

If the battery is damaged, please contact your distributor for help as soon as possible, because a damaged battery is dangerous and must be handled with extreme caution. A damaged battery is not suitable for use and may pose a danger to people or property. If the battery seems to be damaged, return it to your distributor.



WARNING

A damaged battery might export electrolyte or flammable gas, so contact your distributor for advice and information immediately; we will deal with it within 48h.

1.5 Installers

Energy Storage battery is suggested installing by skilled worker or electrician. A skilled worker is defined as a people who had been trained and qualified electrician or had all of the following skills and experience:

- Knowledge of the functional principles and operation of on-grid Energy Storage systems.
- Knowledge of the dangers and risks associated with installing and using electrical devices and acceptable mitigation methods.
- Knowledge of the installation of electrical devices
- Knowledge of and adherence to this manual and all safety precautions and best practices.

2. Product introduction

2.1 Package info

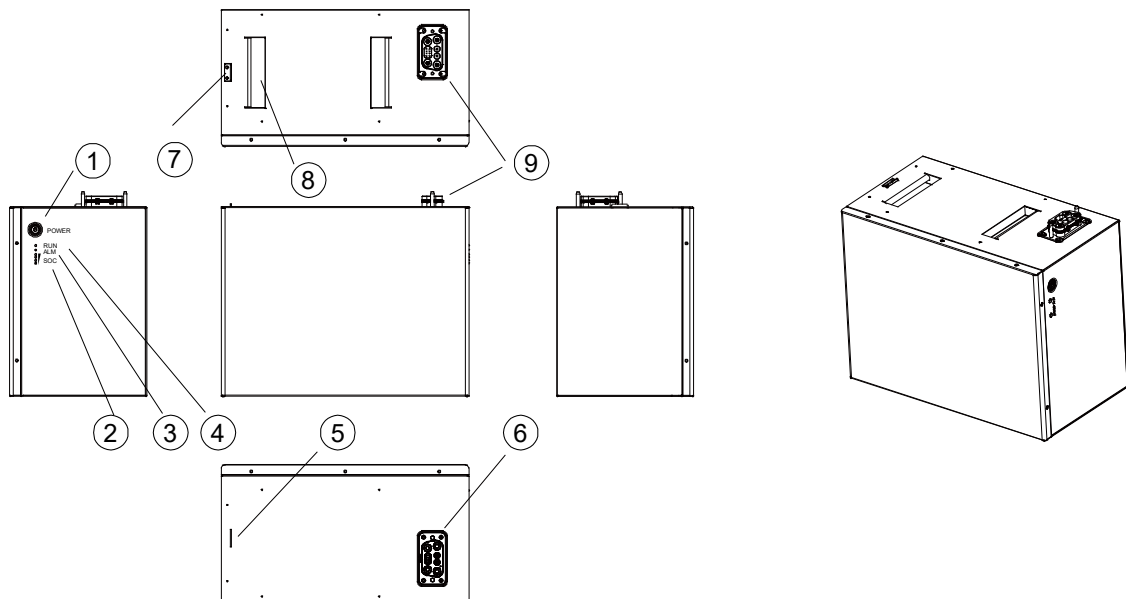
Please confirm product packaging is not damaged before unpacked, and product is good without accessories missing after unpacked, otherwise, please contact the supplier immediately.

Part list:

NO.	Description	Quantity	Unit
1	Battery box	1	pcs
2	Manual	1	pcs
3	Tray (optional)	1	pcs
4	Cable hub (optional)	1	pcs

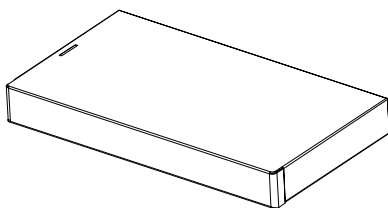
2.2 Appearance

Battery module

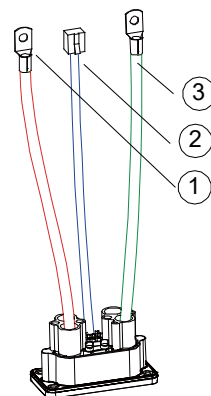


No.	Part	Remark	No.	Part	Remark
①	Power switch		⑥	Female plug	
②	SOC	Surplus capacity indicator	⑦	Bulge plate	
③	ALM	Alarm indicator	⑧	Handle	
④	Run	Running indicator	⑨	Male plug	
⑤	Groove				

Optional accessories



Tray



Cable hub

①	To positive pole (+) of inverter
②	To COM port of inverter
③	To negative pole (-) of inverter

2.3 Technical Data

Item		Technical data	Remark
Energy storage		5.12Kwh	
Rated capacity		100Ah	0.5C/0.5C@25°C
Rated voltage		51.2V	
Working voltage range		44.8V ~ 56.8V	2.8~3.55V per cell
Charge	Suggested charge current	20A	
	Max. cont. charge current	95A	
Discharge	Suggested charge current	20A	
	Max. cont. charge current	95A	
	Peak discharge current	110A @1S	
Communication		CAN/RS485	
Ingress protection		IP20	
Scalability		16pcs in parallel max	
Working temperature		0°C~55°C (charge)	
		-15°C~55°C (discharge)	
Storage temperature		0~40°C	
Dimension (WxHxD)		420×233×323mm	
Weight		Approx: 44 Kg	

3 Installation

3.1 Installation Precaution

Please make sure the installation site meets below conditions:

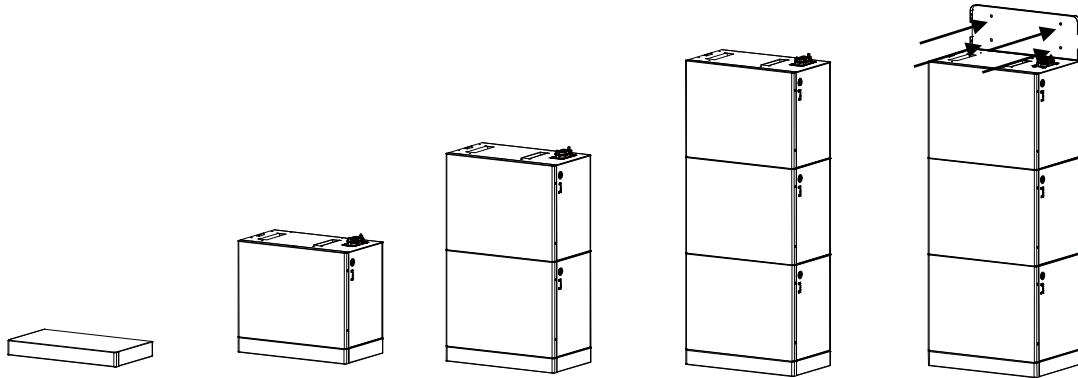
- Not in direct sunlight
- Not in areas where highly flammable materials are stored.
- Not in potential explosive areas.
- Not in the cool air directly.
- Not near the television Antenna or antenna cable.
- Not higher than altitude of about 2000 meters above sea level.
- Not in environment of precipitation or humidity (>95%)
- Please AVOID direct sunlight, rain exposure, snow laying up during installation and operation.

3.2 Installation Tools

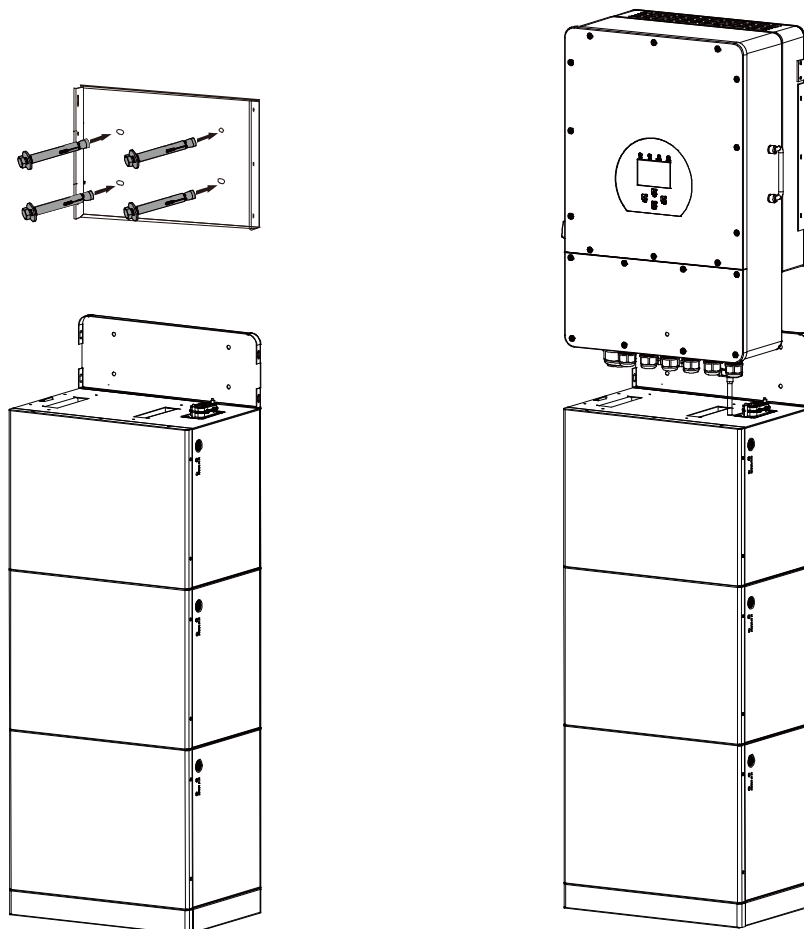
No tools are required during the installation

3.3 Installation Step

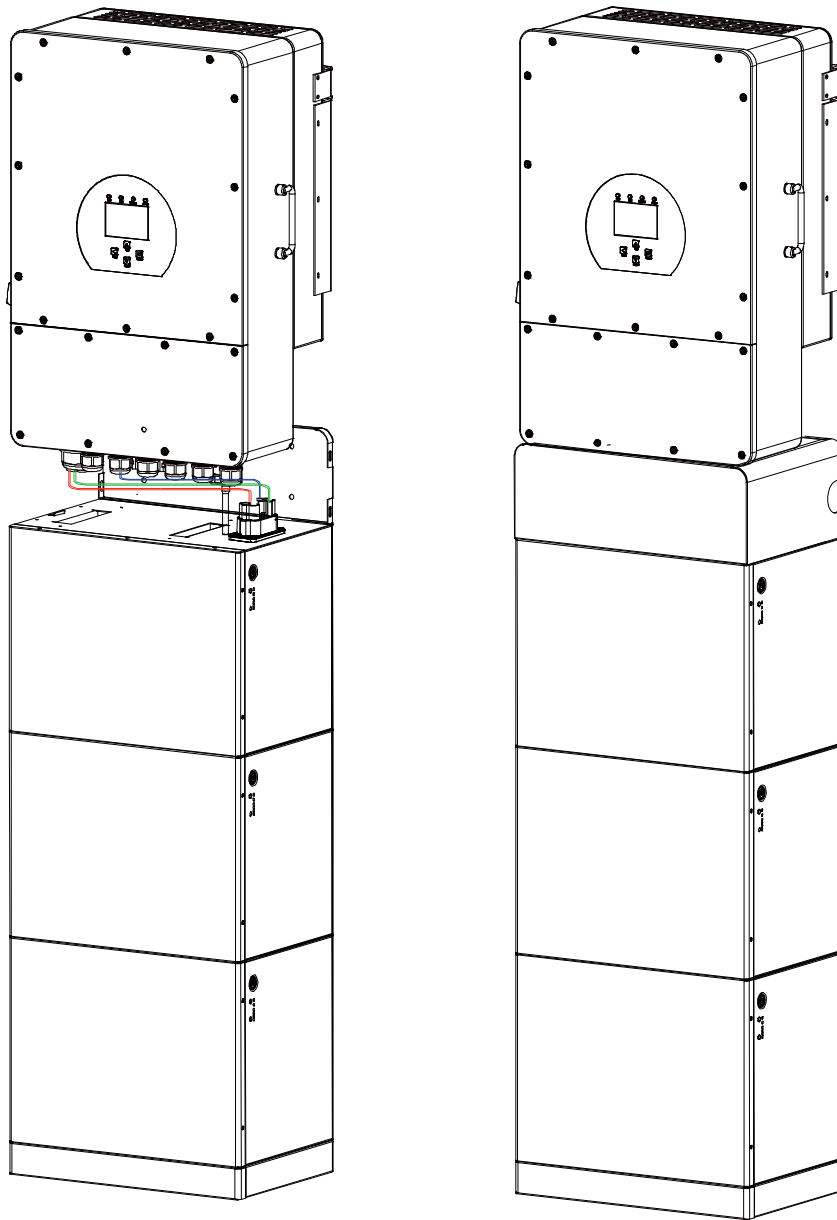
- 3.3.1 Place tray on a flat and solid floor.
- 3.3.2 Stack batteries on tray according to power requirement.
- 3.3.3 Fix rear plate of cable box on the wall



- 3.3.4 (Optional, here Deye inverter is suggested) Install inverter on the plate of cable box



-
- 3.3.5 Plug cable hub to male plug of the top battery module
 - 3.3.6 (Optional, here Deye inverter is suggested) Cover front cover of cable box after cables are connected well.



4 LED Instructions

Battery pack has 1 run indicator, 1 alarm indicator and 4 SOC indicators.



4.1 SOC indicators

SOC indicators show battery remaining capacity.

Status		Charge				Discharge			
SOC indicators		L4 ●	L3 ●	L2 ●	L1 ●	L4 ●	L3 ●	L2 ●	L1 ●
Remaining capacity	0 ~ 25%	off	off	off	Flash	off	off	off	on
	25 ~ 50%	off	off	Flash	on	off	off	on	on
	50 ~ 75%	off	Flash	on	on	off	on	on	on
	≥75%	Flash	on	on	on	on	on	on	on
Run indicator ●		Always				Flash			

4.2 Status indicators

SOC indicators show battery remaining capacity.

System status	Run status	RUN	ALM	SOC			
		●	●	●	●	●	●
Off	Sleep	off	off	off	off	off	off
Standby	Normal	Flash 1*	off	off	off	off	off
Charging	Normal	on	off	As per SOC indicating			
	Over current alarm	on	Flash 2*	As per SOC indicating			
	Over voltage protection	Flash 1*	off	off	off	off	off
	Temperature, over current protection	Flash 1*	Flash 1*	off	off	off	off
Discharging	Normal	Flash 3*	off	As per SOC indicating			
	Alarm	Flash 3*	Flash 3*	As per SOC indicating			
	Temperature, over current, short circuit protection	off	on	off	off	off	off
	Under voltage protection	off	off	off	off	off	off

* Definiton of LED flash

Flash type	On	off
Flash 1	0.25s	3.75s
Flash 2	0.5s	0.5s
Flash 3	0.5s	1.5s

5 Operation

5.1 Boot

Turn the battery box "ON/OFF" to the "ON position";

5.2 Turn off

Turn the "ON/OFF" of the battery box to the "OFF" position.

5.3 Disassembly

5.3.1 Confirm that the inverter and battery are turned off;

5.3.2 Disconnect power cables and communication cable from inverter;

6 Troubleshooting

Our products have been strictly tested before they leave the factory. If there are operating difficulties during installation and use, please read the relevant chapters of this manual.

When a failure occurs, please inform our company and provide relevant information about the inverter. We will have professional after-sales service personnel will answer for you.

The information you need to provide includes:

- Model
- LCD display information
- A short description of the problem
- Battery voltage
- Grid voltage and frequency
- Battery capacity
- Battery output voltage
- Battery purchase time

7 Quality promise

For products that fail during the warranty period, our company will repair or replace them with new products free of charge.

Warranty products require that the company requires customers to provide invoices and dates for purchasing products during the warranty period. At the same time, the trademark on the product should be clearly visible, otherwise it has the right not to guarantee the quality. The replaced product will be handled by our company, and the customer should allow the company a certain amount of time to deal with the failure.

Exemption

The company reserves the right not to guarantee quality if the following situations occur:

- Beyond the free warranty period
- Incorrect installation, modification or use
- Operation beyond the very harsh environment described in this manual
- Machine failure or damage caused by unauthorized installation, repair, modification or disassembly
- Machine failure or damage caused by the use of non-standard components or software
- Anything beyond the scope of installation and use specified in relevant international standards
- Damage caused by abnormal natural environment

If the product fails due to the above situation, the customer requires maintenance service.

After the judgment of the company's service organization, paid maintenance services can be provided.