

「User's Manual」

物料编号: 210110055



 2024.4.1

Applicable Models: SD-SSL516H SD485

♦ Preface

- All information in this document is the property of the device manufacturer. No part of this document may be reproduced in any commercial manner and is permitted for internal use.
- The specifications in this document are subject to change without prior notice. We have made every effort to keep this document complete, accurate, and up to date, but device manufacturers may need to make some improvements in certain circumstances without notice. The equipment manufacturer shall not be liable for any losses caused by this document, including but not limited to omissions, typographical errors, arithmetic errors or listed errors in this document.

♦ Limitation of liability

The equipment manufacturer will not bear any direct or indirect liability for damage to the battery system or property loss caused by the following circumstances.

- Modify, reassemble or replace parts of the battery system without the authorization of the equipment manufacturer.
- It is not the equipment manufacturer's technician who changes or deletes the battery system serial number.
- The design and installation of the system combined with other equipment does not comply with standards, safety regulations and other relevant requirements.
- Equipment damage caused by failure to comply with the relevant requirements of the battery system user manual.
- Equipment damage caused by improper or misuse of the battery system.
- Equipment damage caused by insufficient ventilation in the battery system.
- The maintenance procedures for the battery system do not follow acceptable standards.
- Equipment damage caused by force majeure, such as earthquake, storm, lightning, overvoltage, fire, etc.

01 Safety Instruction.....	3
02 Battery Introduction.....	4
2.1 Introduction to Components.....	4
03 System Installation.....	5
3.1 Installation Environment.....	5
3.2 System Wiring.....	5
04 System Operation	6
4.1 Check before Power-on.....	6
4.2 Battery Power-on.....	6
4.3 Battery Power-off.....	6
05 Battery Parameter.....	7
06 Maintenance.....	8
07 Storage and Package.....	9
7.1 Storage Environment.....	9
08 Parallel Mode.....	10

01

Safety Instruction



DANGER

- Turn off the power before operating the equipment to avoid danger and strictly abide by all safety precautions in this manual and safety signs on the equipment.
- Only professionals are allowed to operate the equipment, and professionals are required to be familiar with local regulations, standards and electrical systems, professional training and knowledge of this product.
- Do not use defective, damaged or missing battery modules.
- Do not disassemble or modify any part of the battery module without the official authorization of the equipment manufacturer.
- Battery damage may lead to electrolyte leakage. If the electrolyte leaks, do not touch the leaked electrolyte and volatile gas, and immediately contact the after-sales service center for help.



WARNING

- In case of contact with the leaking material, you need to do the following steps:
- Inhalation of leaked material: evacuate from the contaminated area and seek medical help immediately.
 - Eye contact: rinse with clean water for at least 15 minutes and seek medical help immediately.
 - Skin contact: wash the contact site thoroughly with soap and water and seek medical help immediately.
 - Eat by mistake: vomit immediately and seek medical help immediately.
 - Do not move the battery system when connecting an external battery expansion module. If you need to replace or add batteries, please contact the after-sales service center.



CAUTION

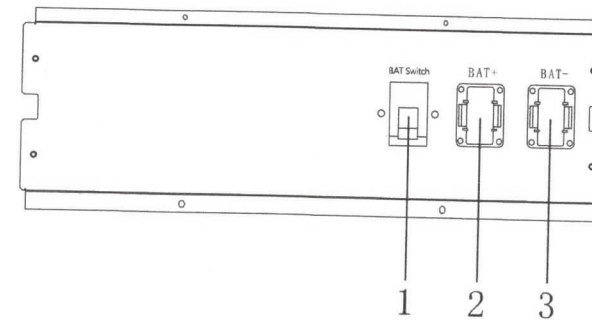
Transportation

- Ensure that the battery system is not damaged during transportation and storage.
- Be careful and consider the weight of the battery when lifting it.
- Do not hit, pull, drag, or step on the equipment, and do not place unrelated items anywhere in the battery system.
- Transportation must be carried out by trained professionals and operations during transportation must be recorded.
- Make sure the equipment is firmly placed and does not tilt, otherwise it may cause damage to the equipment and personal injury.
- Make sure there are carbon dioxide, Novec1230 or FM-200 fire extinguishers nearby.
- Fire extinguishers of recommended materials should be used in fire fighting. Water or ABC dry powder fire extinguishers should not be used to extinguish the fire. Firefighters should wear protective clothing and self-contained breathing apparatus when extinguishing the fire.
- The battery has the risk of explosion when the ambient temperature exceeds 150 °C.
- Appropriate tools and protective measures should be taken when installing and maintaining heavy equipment. Improper operation can lead to personal injury.
- The use of the cable at high temperature may cause aging and damage of the insulating layer, and the distance between the cable and the periphery of the heating equipment or heat source area is at least 30mm.
- Cables of the same type must be bound together and laid at least 30mm apart from each other. Do not intertwine or cross cables.

02

Battery Introduction

2.1 Introduction to Components



Definitions of battery ports

No.	Part	Description
1	Air switch	Shortcircuit/open circuit protection
2	Cathode	Power transfer of cathode
3	Anode	Power transfer of anode

03

System Installation

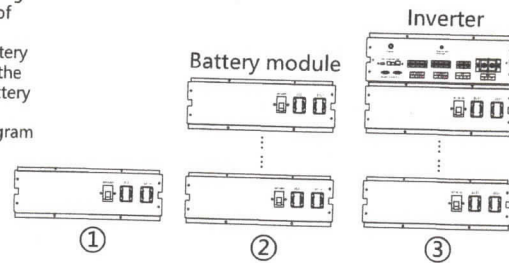
3.1 Installation Environment

The battery system should be installed on the ground with sufficient load-bearing force and flatness; if the ground does not have enough support and flatness, it needs to be guaranteed by other means (such as making foundation, adding load-bearing plate, etc.).

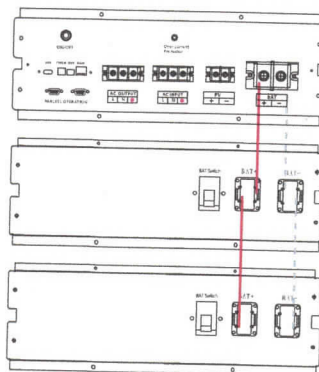
- The working condition of the battery is the best at the temperature of 20 °C to 40 °C.
- Do not install it in direct heat or rain environment.
- Do not install it near a high temperature heat source or a low temperature cold source.
- Do not install it in an area where the ambient temperature changes extremely.
- Do not install it in a highly intrusive environment.
- Do not install it in a place accessible to children.
- Do not install it in areas prone to stagnant water.
- Do not place flammable and explosive materials around the equipment.

Installation Diagram

- ① Place the battery module on the predetermined ground.
- ② Stack casters from bottom to top based on the number of battery modules to be installed. The maximum bearing weight is 500KG. It is recommended that the number of battery modules in each stack not exceed 8 layers.
- ③ You can choose to stack the inverters above the battery module or stack them separately nearby according to the number of inverters configured and the number of battery modules.
- ④ Carry out wiring according to the system wiring diagram and parallel mode.



3.2 System wiring



Cathode

Anode

04

System Operation

4.1 Check Before Power-on

Be sure to check the following when the battery system is powered on to prevent damage to the system.

No.	Check Items
1	The equipment is installed firmly, the installation position is convenient for operation and maintenance, the installation space is convenient for ventilation and heat dissipation, and the installation environment is clean and tidy.
2	The battery cathode and anode power lines are connected correctly and firmly.
3	The cable binding meets the requirements of the alignment and the cables are reasonably distributed without damage.
4	Unused ports are sealed and blocked.

4.2 Battery Power-on

1. Close the switch.
2. Normal battery output

4.3 Battery Power-off

When powering off the battery system, follow the order of the following steps to prevent damage to the system:

1. Disconnect the switch
2. Check whether all battery switches are disconnected
3. Power off

05

Battery Parameters

Technical parameters	SD485	SD-SSL516H
Rated capacity	5040Wh	6144Wh
Cell type	Lithium iron phosphate (liquid)	Lithium iron phosphate (semi-solid)
Cell configuration	15S2P	16S2P
Rated voltage	48V	51.2V
Working voltage	39V~57.6V	41.6V~58.4V
Maximum continuous discharge current	120A	120A
Maximum parallel equipment	6	
Certificate and approval	/	
Operating temperature	0~55°C (charging) -20~55°C (discharging)	
Storage temperature	-20~40°C(≤1 month)/0~35°C(≤1 year)	
Humidity	20%~95%(non-condensing)	
Elevation	< 2000M	
Protection level	IP20	
Installation method	Stack	
Product dimensions	540*518.7*186mm	
Package dimensions	600*590*255mm	
Net weight	45KG	
Gross weight	50KG	

06

Maintenance

Maintenance Items	Maintenance Cycle
When using the battery for the first time, you need to charge the battery full 25-50% and discharge it to	Once every three months
Check whether the installation of the wall hanger is loose, if so, tighten the corresponding position.	Once every six months
Check whether the shell is damaged, repaint or contact the after-sales service center if necessary.	Once every six months
Check whether the exposed cable is worn, if necessary, replace the corresponding cable or contact the after-sales service center.	Once every six months
Check whether there is debris accumulation around the battery, if necessary, so as not to affect the heat dissipation of the battery.	Once every six months
Check for water or pests to avoid long-term intrusion of the battery.	Once every six months



WARNING

- If you find any problems that may affect the battery or energy storage inverter system, please contact after-sales personnel to deal with them, and it is forbidden to disassemble them privately.
- If you find that the copper wire inside the guide wire is exposed, do not touch it, because there is the danger of high voltage, please contact the after-sales personnel to deal with it, it is forbidden to disassemble it privately.
- In case of other emergencies, please contact the after-sales personnel as soon as possible, operate under the guidance of the after-sales personnel, or wait for the after-sales personnel to carry out on-site operation.

7.1 Storage Environment

If the equipment is not installed immediately, verify that the storage environment meets the following conditions:

- Equipment should be packed in a packing case. Place desiccant in the packing case and seal the packing case.
- If it is not installed within 3 days after unpacking, it is recommended that the equipment be stored in the packing case.
- Storage SOC : 25~50%SOC, charge and discharge cycle should be carried out every 3 months.
- Storage temperature range: stored at -20 °C ~ 40 °C for not more than 1 month; stored at 35 °C for less than one year.
- Humidity range: 0~95% without condensation; it cannot be installed when the battery interface has the phenomenon of condensation.
- The equipment should be stored in a cool place to avoid direct sunlight.
- The storage of equipment should be kept away from flammable, explosive, corrosive and other items.
- The equipment is prohibited from rain.

Parallel steps:

1. Make sure that the voltage of each module is consistent before connection, and the voltage difference between the module and the module should be less than 1V.
2. Make sure the wiring is correct and connect according to the diagram.
3. After completing the above steps, just turn on the battery switch one by one.

