

Rack Mounted
Energy Storage

User Manual

DGA

QUICK START
GUIDE



Chapter 1 Preface

1.1 Explanation

This manual is applicable to the assembly, installation, debugging, and maintenance of a multi in one stack ed off grid energy storage integrated machine. Not involving any details of peripheral devices and accessori es (such as photovoltaic modules) connected to this product. For information on other related connected d evices, please refer to their manual

Applicable users



This manual is applicable to personnel who have received electrical training and possess qualified knowledge of equipment construction and operation s kills. This personnel is capable of handling the hazards and hazards involved in the installation of electrical equipment.

1.2 Postscript

Visit our official website for more product information.

1.3 Storage of instructions

Please keep this user manual properly for future use. The manufacturer shall not be liable for any damage or damage caused by failure to follow the instructions in the manual.

1.4 Icon Description

The icons in the following table will appear in the subsequent text, and the following annotations will be ma de.

1.5 Symbols and Descriptions

	Be careful of high temperatures!		Direct current (DC)
	Dangerous voltage warning!		Alternating current (AC)
	Connection point for grounding protection!		Danger signal!

Chapter 2 Safety and Compliance

1. DC and AC circuit breakers

Use DC and AC circuit breakers to safely disconnect the equipment from the grid and photovoltaic inputs.

DC and AC circuit breakers should be able to disconnect all non grounded installed conductors.

2. Qualification of technical workers

Understand the working principle and operating methods of this product.

Know how to handle the hazards and risks associated with the installation and use of electrical equipment and devices. Have participated in training on the installation and commissioning of electrical equipment and devices.

Familiarize oneself with all applicable standards and guidelines.

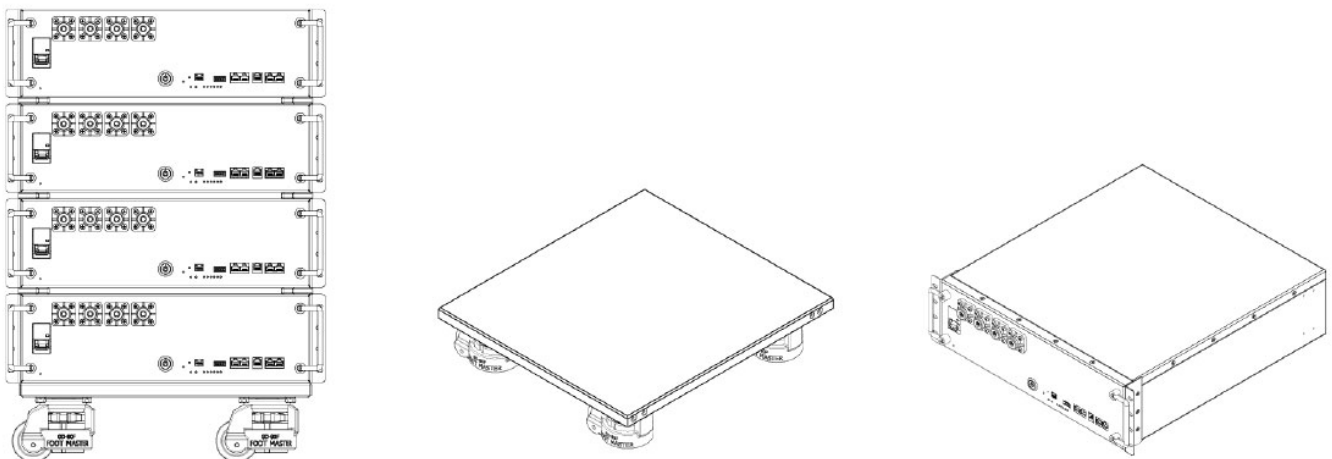
Familiarize oneself with and comply with this manual and all safety instructions.

Chapter 3 Product Description

3.1 Overview of Energy Storage Integrated Machine

Product model (DGA series)

Product appearance (Figure 1)

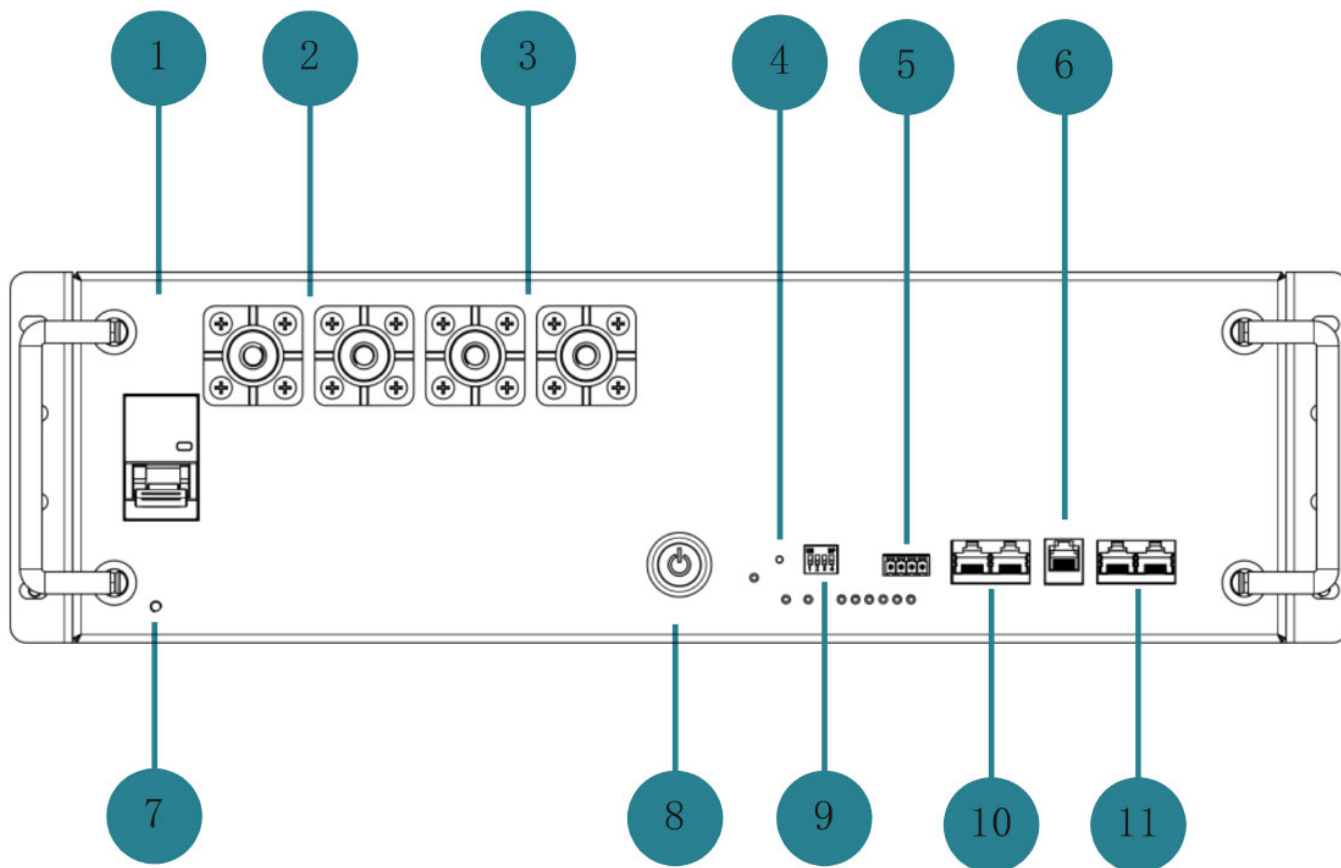


3.2 Equipment Information

This is a multifunctional off grid energy storage all-in-one machine; Integrated with BMS battery protection system, stackable battery module, and functional module, it is very suitable for off grid backup power supply and self consumption applications.

The entire system also requires other equipment to achieve complete operation, such as inverters, photovoltaic modules, generators, or public power grids. According to your needs, please consult your system integrator to learn about other possible system architectures. The WiFi/GPRS module is a plug and play monitoring device to be installed on the inverter. By using this device, users can monitor the status of the PV system anytime and anywhere through their mobile phones or websites.

Product Interface Description (Figure 2)



1	Circuit breaker
2	p+
3	p-
4	Reset
5	DRY CONTACT
6	RS232
7	GDN
8	ON/OFF
9	ID
10	RS485• •••••••
11	RS485-2

Basic Installation Requirements

This section of guidance is for installation personnel to choose the appropriate installation location to avoid damaging the machine or injuring operators.

1. This product must not be installed in direct contact with water.
2. To avoid reducing the output power of the product due to overheating, please do not expose the device directly to sunlight
3. The humidity of the environment around the equipment should be between 0-95%, and there should be no condensation
4. The installation position must be convenient for future maintenance
5. Do not install the product on buildings made of flammable or heat-resistant materials
6. Stay away from places that children can touch
7. Do not cover this product and do not place anything on the device
8. Do not install the product near strong magnetic signals such as TV antennas or other antennas or cables. The equipment needs sufficient cooling space to provide optimal ventilation and ensure sufficient heat dissipation. The ambient temperature should be below 40C to ensure optimal operation
9. During installation, avoid prolonged work under sunlight, rain, and snow pressure.

Suggestions for AC cables and installation environment

Cable requirements

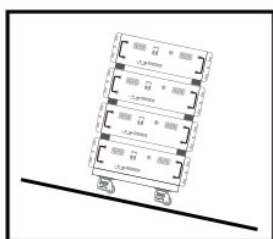
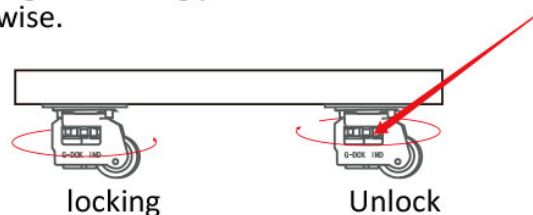
Wire	Wire Gauge	Cable (mm ²)	Outer Diameter (MM)
Silicone Wire	4AWG	25	11.5

Before choosing where to install, consider the following:

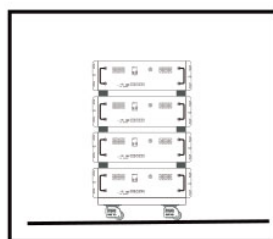
1. Do not install the battery on flammable building materials.
2. Installed on a load-bearing surface.
3. The ambient temperature should be between 0°C and 40°C to ensure optimal operation.
4. The recommended installation position should be vertically attached to the ground.

Make sure other objects and surfaces are as shown below to allow for adequate heat dissipation and enough room to remove wires. Note: Only suitable for installation on concrete or other non-combustible surfaces.

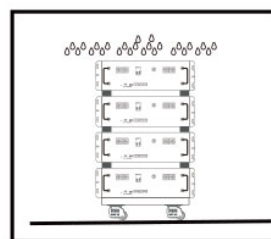
Secure the sliding wheel by twisting the locking pin on the universal wheel and lock it counterclockwise/unlock it clockwise.



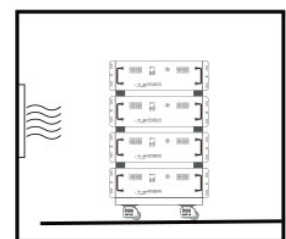
Obliquity



Flatwise



Humid



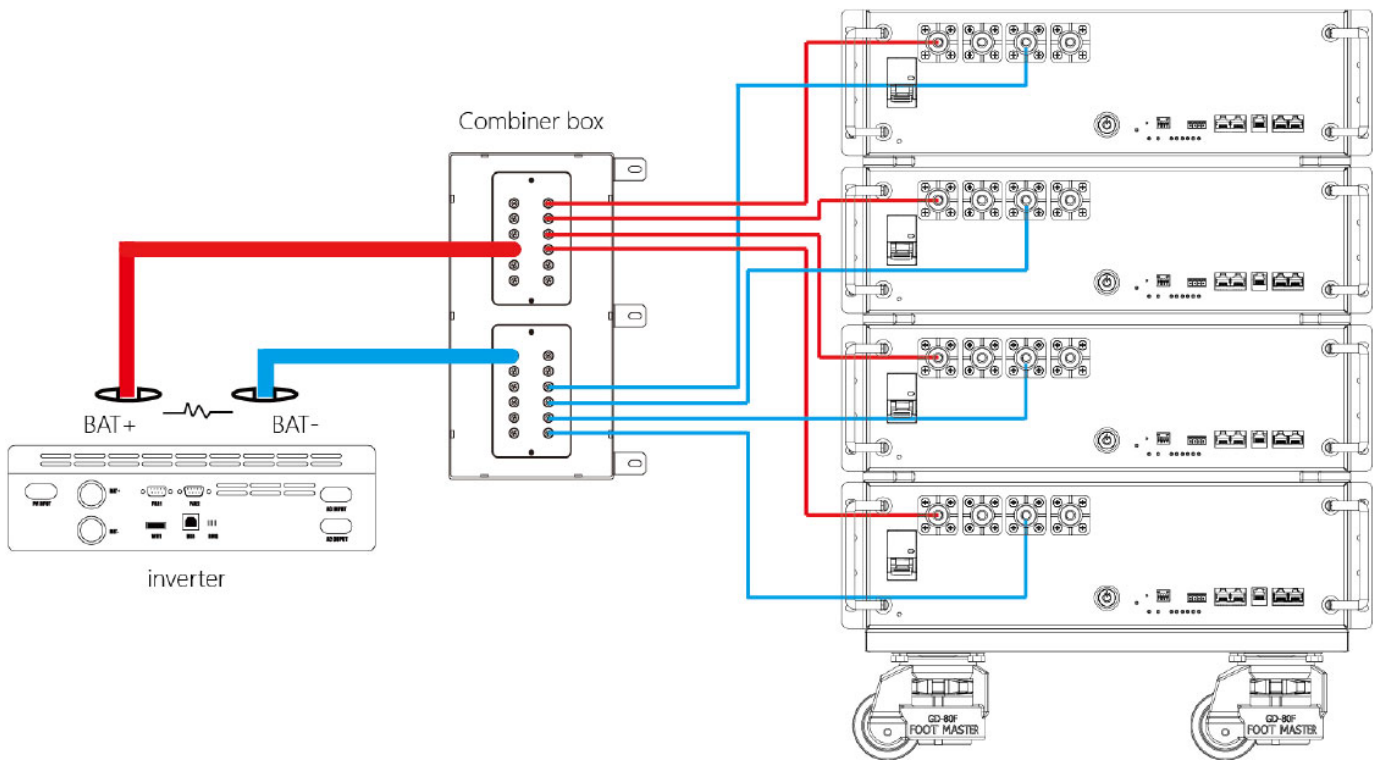
Ventilated

3.3 Parallel use of batteries

After the batteries are stacked together, press the power button switch in sequence, first press the slave power switch, and finally turn on the power switch connected to the system host battery to start the system and perform automatic coding.

This section of guidance is for installation personnel to choose the appropriate installation location to avoid damaging the machine or injuring operators.

Power supply range



Attention: Important!!!

Warning: Before attempting to hardwire the AC power supply to the unit, please ensure that the AC power supply is disconnected

Ensure the connection of AC wires with correct polarity. If the work line and N line are connected in reverse, when these inverters operate in parallel.

It may cause a short circuit in the power supply.

Attention: It takes at least 23 minutes for air conditioning and other electrical appliances to restart, as it requires sufficient time to balance the refrigerant gas in the circuit. If there is a power shortage and it is restored in a short period of time, it will cause damage to the connected devices. To prevent such damage, please confirm with the air conditioning manufacturer before installation whether it is equipped with a delay function. Otherwise, this off grid solar inverter will trigger overload faults and output cuts can protect your device, but sometimes it can still cause internal damage to the air conditioning.

3.4 Equipment installation status inspection

Please ensure to choose a suitable installation surface to ensure that the equipment is stable and free from shaking.

Electrical connections

High voltage danger!

There is a high voltage in the conductive part of the device that may cause electric shock. Before performing any operation on the device, please disconnect the AC side, photovoltaic side, and battery side of the inverter. Do not reverse connect the positive and negative terminals of the battery! Otherwise, it will damage the inverter and void the warranty!



WARNING

Electrostatic discharge carries the risk of damaging electronic components, and appropriate anti-static measures should be taken when replacing and installing equipment.



DANGER

Grounding: Before connecting the DC power line, the AC power supply must be grounded.

4. Installation

➤ Unpacking inspection

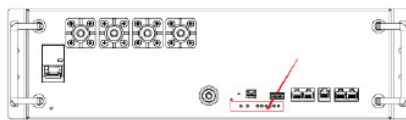
Before installation, please inspect the unit. Make sure there is no damage inside the package.

You should have received the following items in the box:

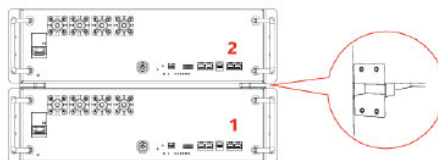
Terminal cable/tray/cable wire/connector piece/M8 external hexagonal flat head screw/M4 cross screw.

Preparatory work

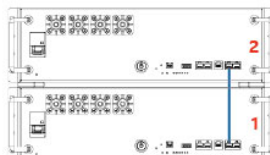
- Before connecting all cables, check whether all assembled batteries are normal. Turn on the power switch and observe whether the indicator works normally.



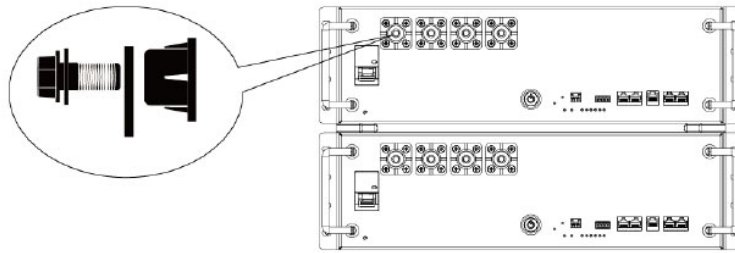
Please overlap all the battery packs in sequence according to their serial numbers and fix them with M4 Phillips screws.



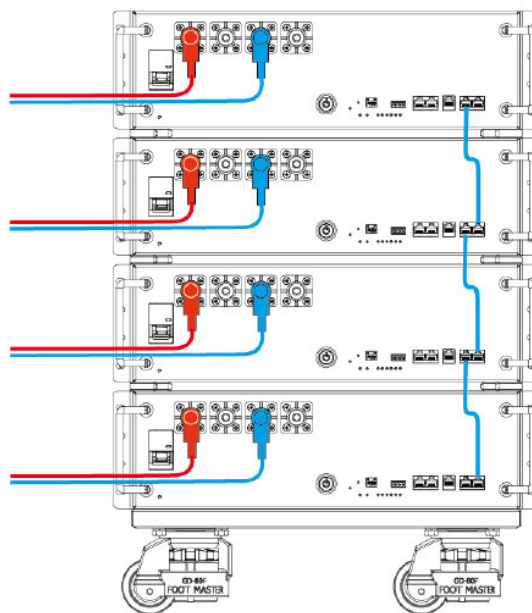
- After confirming that the battery pack is stable, connect and connect the communication network cable.



- Check whether all power switches are in the off state. After confirmation, connect the aluminum piece and fix it with M8 external hexagonal flat head screws.



- Check whether all steps are assembled in strict accordance with the instructions, and whether all connections are fixed and correct before connecting the load.



Remarks:

This installation manual is a simplified version of the installation guide. For specific installation and usage instructions, please refer to the installation and usage instructions provided by each component of the photovoltaic power generation and energy storage system!

If the installation is not carried out in accordance with this manual and the respective installation instructions, resulting in equipment damage, our company has the right not to provide warranty.