Version: V1.0



INSTALLATION GUIDE

Deye Inverter and IG-16K-U Battery System

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1. Preparation Before Installation

1.1 Safety Requirements

• Installation personnel must hold the relevant local electrical operation qualifications.

• Ensure that no flammable or explosive materials are present on site and that ventilation is adequate.

• During installation, wear personal protective equipment such as insulated gloves and safety goggles.

• Power-off operation: before connecting or disconnecting any wiring, make sure the inverter is powered off.

1.2 PACK Accessories Check

Please check whether the following accessories are complete:



Energy storage PACK main unit — 1 pc



Grounding cable — 1 pc



Network cable — 1 pc



Power cable (DC cable) — 1 pc



Mounting screws — 2 pcs

If any component is missing, please contact the supplier for a replacement.

1.3 Installation Tools and PPE Check

Required tools:

• Phillips / flat-head screwdriver

• Wrench (suitable for M6–M10 bolts)

• Insulated pliers

• Multimeter (for voltage testing)

Personal protective equipment:

• Insulated gloves

• Safety goggles

• Safety shoes

2. Physical View After Installation (for Future Reference)



Installed system

Please refer to the “Installation Diagram” in the user manual.

Installation environment requirements:

• The installation location should be dry, well ventilated and free of corrosive gases.

• Indoor installation is recommended. Avoid direct sunlight and rain exposure.

• Maintain at least 30 cm of heat dissipation space around the unit, with the bottom at least 10 cm above the ground.

• Do not install in areas with high temperature, high humidity or heavy dust.

3. Wiring Harness Connection Between the PACK Product and the PCS

3.1 Single-Unit Mode Connection

Cable Type	Connection Description
Grounding cable	Connect the grounding terminal of the PACK enclosure to the building grounding system; resistance ≤ 4 Ω.
Communication cable	Use a network cable to connect the PACK to the inverter communication interface.
Power cable	Connect the positive and negative poles respectively to the inverter DC input terminals (DC+ / DC−). Be sure to verify polarity.

NOTE	All connections must be secure to prevent poor contact caused by looseness.

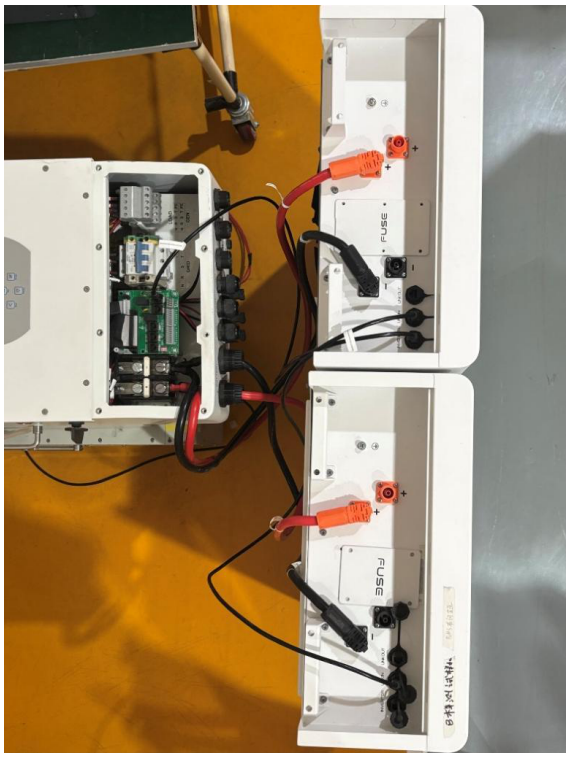


Installation diagram

3.2 Parallel Mode Connection (Two Units as an Example)

When multiple PACK units need to be connected in parallel, connect them as follows:

Cable Type	Connection Method
Grounding cable	Each PACK should be grounded independently and share a common grounding busbar.
Communication cable	Multiple PACK units are connected in series by daisy-chain communication to the master inverter.
Power cable	After the positive and negative poles of all PACK units are bused separately, connect them to the inverter DC input terminals.



Installation diagram

During parallel operation, ensure that all PACK units have the same model, software version and voltage, with similar SOC, to avoid unbalanced operation.

4. System Startup

4.1 System Power-On and Power-Off Sequence

Power-on sequence:



1. Close the DC breaker on the PACK side (DC Breaker).



2. Close the inverter DC input switch.



3. Start the inverter power supply (AC-side power supply).



4. Turn on the inverter control panel and start the system.

Power-off sequence (reverse order):

1. Turn off the inverter control panel.



2. Disconnect the inverter power supply (AC-side power supply).



3. Disconnect the inverter DC input switch.



4. Disconnect the DC breaker on the PACK side.

CAUTION	Do not plug or unplug cables under load or cut off power suddenly!

4.2 Battery-Related Settings in the Inverter

Complete the following configuration on the inverter local interface or cloud platform:



Select the battery type.



Set the battery capacity (Ah).



Configure the charge and discharge current limits.

5. Common Faults and Handling Methods

The following issues may occur during the initial operation stage. Please refer to the handling methods:

Fault Symptom	Possible Cause	Handling Method
PCS cannot start	1. Battery voltage too low	1. Check the battery voltage. If it is lower than 49 V, recharge it with an external DC power supply.
	2. Communication fault	2. Unplug and reconnect the communication cable, and check the wiring.
	3. Protection function triggered	3. Check the PCS fault code and clear the corresponding fault.
Abnormal charge/discharge current	1. Current limit setting too low	1. Adjust the PCS charge/discharge current limit parameters.
	2. Over-temperature protection	2. Improve heat dissipation conditions and reduce the ambient temperature.
	3. Poor battery consistency	3. Perform battery balancing.
Communication interruption	1. Network fault	1. Check the network connection and router status.
	2. Poor contact of the communication cable	2. Reconnect the communication cable and check the shield grounding.
	3. BMS fault	3. Restart the BMS or contact the manufacturer for repair.

Appendix

• Appendix A: Product Specification — IG-16K-U User Manual

Notes:

• This product is intended only for installation and commissioning by qualified personnel. Non-professionals must not disassemble it without authorization.

• Unauthorized modification of circuits or replacement of core components is strictly prohibited.

• It is recommended to perform a comprehensive routine inspection every 6 months.

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Please keep this manual properly for future reference.



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