

GOODWE



Quick Installation Guide

Hybrid Inverter

ET Series

(GW15K-ET | GW20K-ET | GW25K-ET | GW29.9K-ET | GW30K-ET)

V1.0-2022-08-30

General Disclaimer

- The information in this quick installation guide is subject to change due to product updates or other reasons. This guide cannot replace the product labels or the safety precautions in the user manual unless otherwise specified. All descriptions here are for guidance only.
- Before installations, read through the quick installation guide. For additional information, please see the user manual.
- All operations should be performed by trained and knowledgeable technicians who are familiar with local standards and safety regulations.
- Check the deliverables for correct model, complete contents, and intact appearance. Contact the manufacturer if any damage is found or any component is missing.
- Use insulating tools and wear personal protective equipment when operating the equipment to ensure personal safety. Wear anti-static gloves, clothes, and wrist strip when touching electronic components to protect the inverter from damage. The manufacturer shall not be liable for any damage caused by static electricity.
- Strictly follow the installation, operation, and configuration instructions in this guide and user manual. The manufacturer shall not be liable for equipment damage or personal injury if you do not follow the instructions. For more warranty details, please visit <https://en.goodwe.com/warranty>.

Safety Disclaimer



Warning









PV String Safety:

1. Ensure the component frames and the bracket system are securely grounded.
2. Connect the DC cables using the delivered PV connectors. The manufacturer shall not be liable for equipment damage if other connectors are used.
3. Ensure the DC cables are connected tightly, securely, and correctly. Inappropriate wiring may cause poor contacts or high impedances, and damage the inverter.
4. Measure the DC cable using the multimeter to avoid reverse polarity connection. Also, the voltage should be under the max DC input voltage. The manufacturer shall not be liable for the damage caused by reverse connection and extremely high voltage.
5. The PV strings cannot be grounded. Ensure the minimum insulation resistance of the PV string to the ground meets the minimum insulation resistance requirements before connecting the PV string to the inverter. $R = \text{Max. Input Voltage (V)} / 30\text{mA}$.
6. The PV modules used with the inverter must have an IEC61730 class A rating.

Inverter Safety:

1. The voltage and frequency at the connecting point should meet the on-grid requirements.
2. Additional protective devices like circuit breakers or fuses are recommended on the AC side. Specification of the protective device should be at least 1.25 times the rated AC output rated current.
3. PE cable of the inverter must be connected firmly. When there are multiple inverters, make sure that all the grounding points on the enclosures are equipotential bonding.
4. Do not start the BACK-UP function if there is no battery in the PV system. The manufacturer shall not be liable for the risks caused by not following this rule.
5. Do not apply mechanical load to the terminals, otherwise the terminals can be damaged.

6. All labels and warning marks should be visible after the installation. Do not scrawl, damage, or cover any label on the device.
7. Do not touch the running equipment to avoid being hurt as its temperature may exceed 60°C. Do not install the equipment at a place within children's reach.
8. Unauthorized dismantling or modification may damage the equipment, the damage is not covered under the warranty.
9. If there is any radio or wireless communication equipment below 30MHz near the inverter, you have to:
 - Install the inverter at least 30m far away from the wireless equipment.
 - Add a low pass EMI filter or a multi winding ferrite core to the DC input cable or AC output cable of the inverter.
10. Warning labels on the inverter are as follows.

	HIGH VOLTAGE HAZARD. Disconnect all incoming power and turn off the product before working on it.		Delayed discharge. Wait 5 minutes after power off until the components are completely discharged.
	Read through the guide before working on this device.		Potential risks exist. Wear proper PPE before any operations.
	High-temperature hazard. Do not touch the product under operation to avoid being burnt.		Grounding point. Indicates the position for connecting the PE cable.
	CE marking		Do not dispose of the inverter as household waste. Discard the product in compliance with local laws and regulations, or send it back to the manufacturer.

Battery Safety:

1. The battery used with the inverter shall be approved by the inverter manufacturer. The approved battery list can be obtained through the official website.
2. Before installations, read through the corresponding battery's User Manual to learn about the product and the precautions. Strictly follow its requirements.
3. If the battery discharged completely, please charge it in strict accordance with the corresponding model's User Manual.
4. The battery current may be influenced by temperature, humidity, weather conditions, etc., which may limit the current and affect the load capacity.
5. If the battery cannot start properly, contact the after-sales service as soon as possible. Otherwise, the battery will be damaged permanently.
6. Measure the DC cable using the multimeter to avoid reverse polarity connection. Also, the voltage should be under the permissible range.
7. To avoid damage the inverter, do not connect one battery pack to multi inverters.

Check before Power-on

No.	Check Item
1	The product is firmly installed at a clean place that is well-ventilated and easy-to-operate.
2	The PE, DC input, AC output, and communication cables are connected correctly and securely.
3	Cable ties are intact, routed properly and evenly.
4	Unused ports and terminals are sealed.
5	The voltage and frequency at the connection point meet the inverter grid connection requirements.

EU Declaration of Conformity

GoodWe Technologies Co., Ltd. hereby declares that the inverter with wireless communication modules sold in the European market meets the requirements of the following directives:


















- Radio Equipment Directive 2014/53/EU (RED)
- Restrictions of Hazardous Substances Directive 2011/65/EU and (EU) 2015/863 (RoHS)
- Waste Electrical and Electronic Equipment 2012/19/EU
- Registration, Evaluation, Authorization and Restriction of Chemicals (EC) No 1907/2006 (REACH)

GoodWe Technologies Co., Ltd. hereby declares that the inverter without wireless communication modules sold in the European market meets the requirements of the following directives:

- Electromagnetic compatibility Directive 2014/30/EU (EMC)
- Electrical Apparatus Low Voltage Directive 2014/35/EU (LVD)
- Restrictions of Hazardous Substances Directive 2011/65/EU and (EU) 2015/863 (RoHS)
- Waste Electrical and Electronic Equipment 2012/19/EU
- Registration, Evaluation, Authorization and Restriction of Chemicals (EC) No 1907/2006 (REACH)

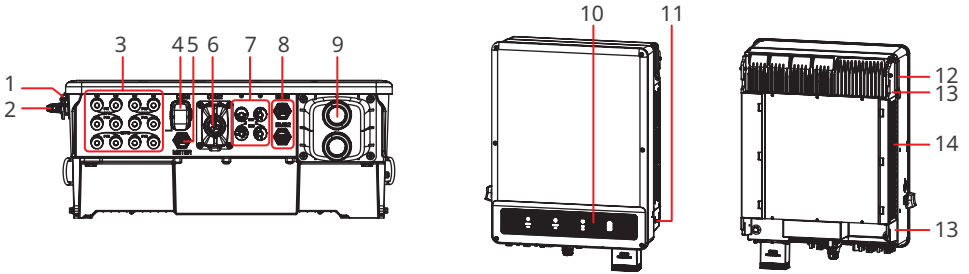
You can download the EU Declaration of Conformity on <https://en.goodwe.com>.

LED Indicators

Indicator	Status	Explanation
		The inverter is power on and in the standby mode.
		The inverter is starting up and in the self-check mode.
		The inverter is in normal operation under grid-tied or off-grid modes.
		BACK-UP output overload.
		A fault has occurred.
		The inverter is powered off.
		The grid is abnormal and the inverter is in off-grid mode.
		The grid is normal and the inverter is in grid-tied mode.
		BACK-UP is off.
		The monitoring module of the inverter is resetting.
		The inverter fails to connect with the communication terminal device.
		Faults between the communication terminal device and Server.
		The monitoring of the inverter operates well.
		The monitoring module of the inverter has not been started yet.

02 Product Introduction

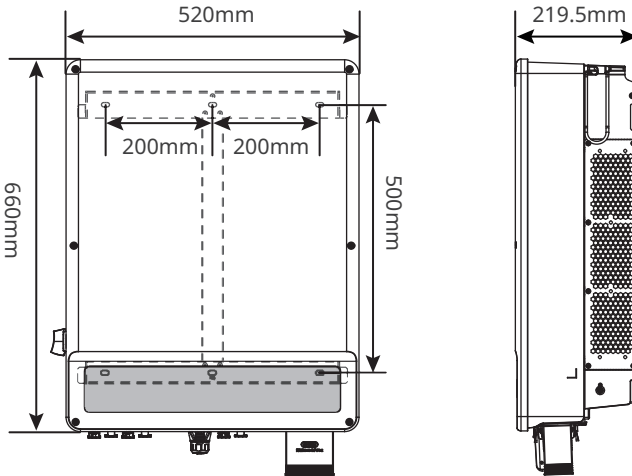
Parts



- | | | |
|---------------------------------------|-----------------------------|---|
| 1. DC switch lock hole ^[1] | 2. DC switch | 3. PV input terminal (PV+/-) |
| 4. Communication module port (COM) | 5. METER communication port | 6. Communication port (COM2) |
| 7. Battery input terminal (BAT+/-) | 8. BMS communication port | 9. AC output terminal (On-Grid and Back-Up) |
| 10. Indicators | 11. PE terminal | 12. Handle |
| 13. Mounting plate | 14. Heat Sink | |

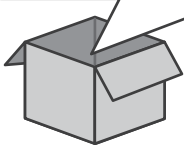
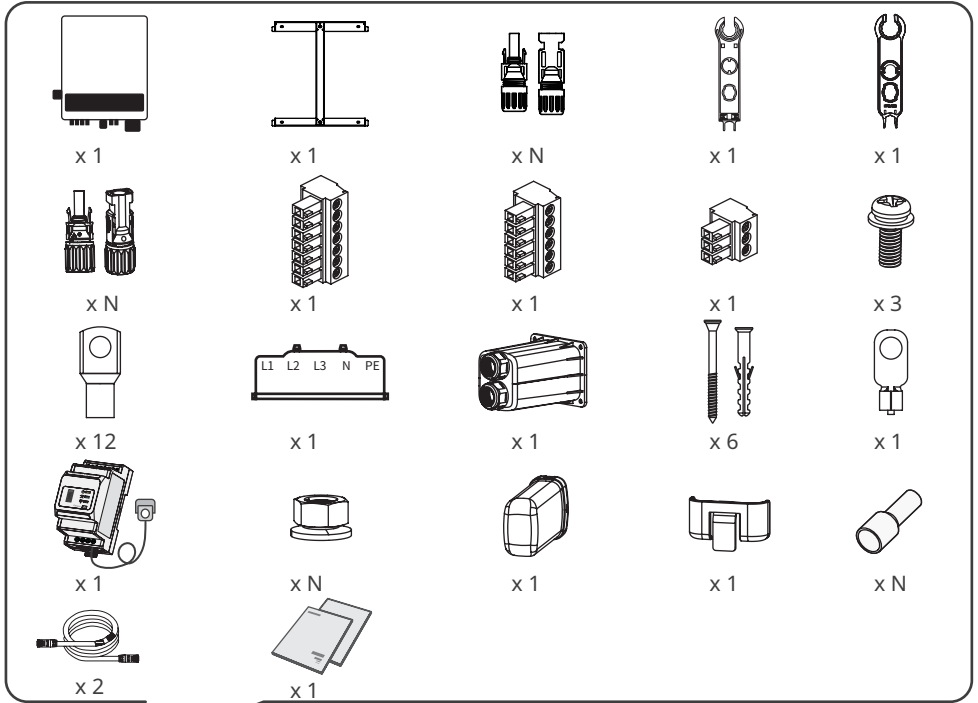
[1]: Only for Australia.

Dimensions



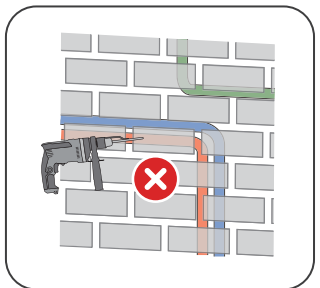
03 Inverter Installation

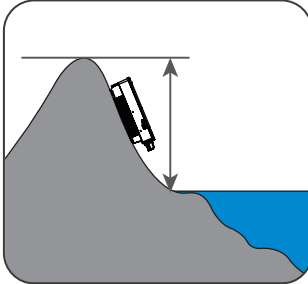
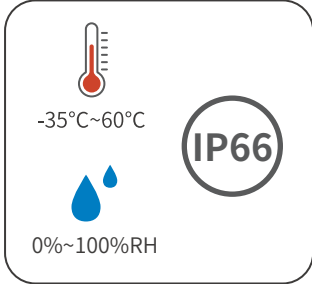
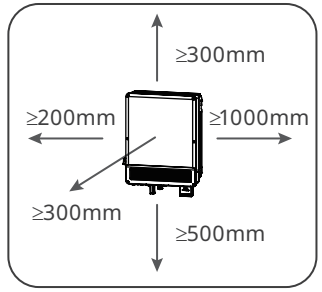
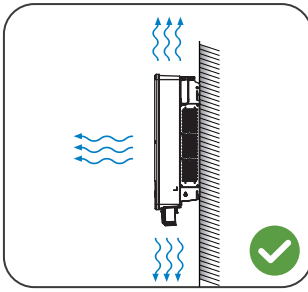
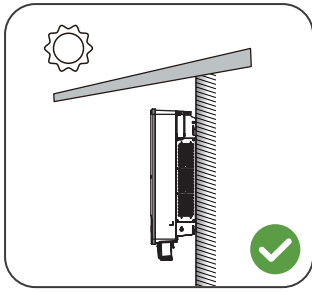
Packing List



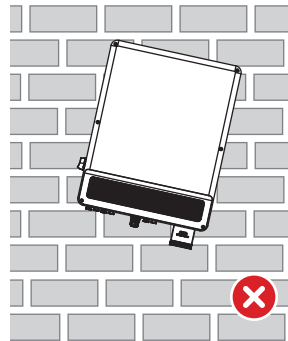
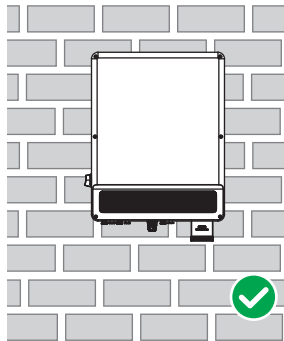
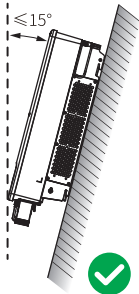
N = Quantity depends on the inverter model.

Space Requirements

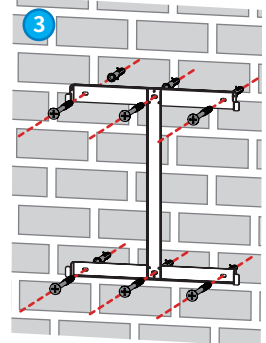
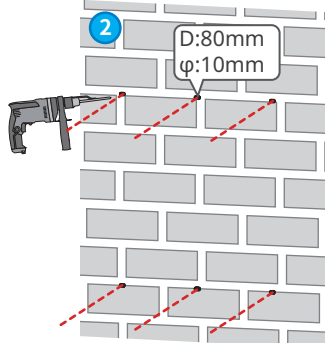
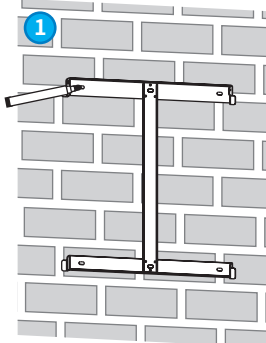




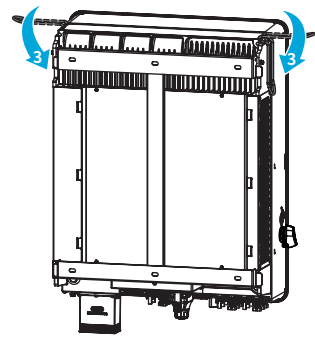
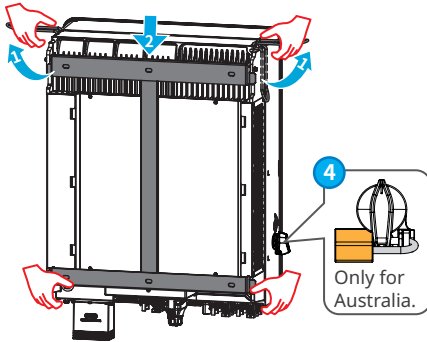
Angle Requirements



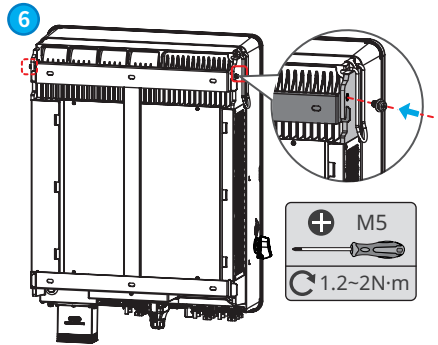
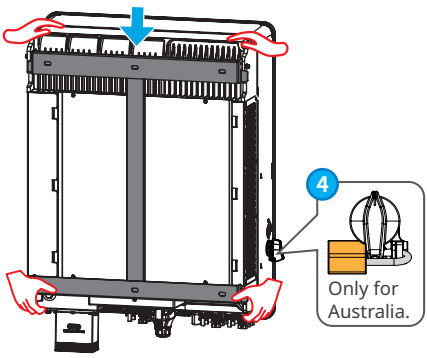
Installing the Inverter



5 With handle:

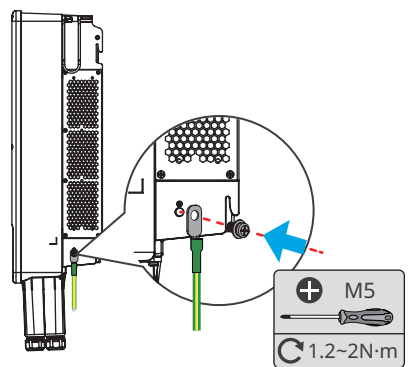
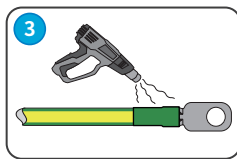
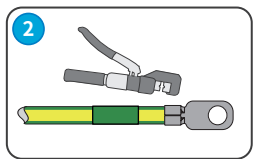
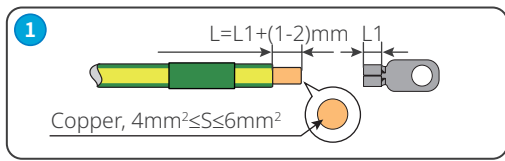


5 Without handle:

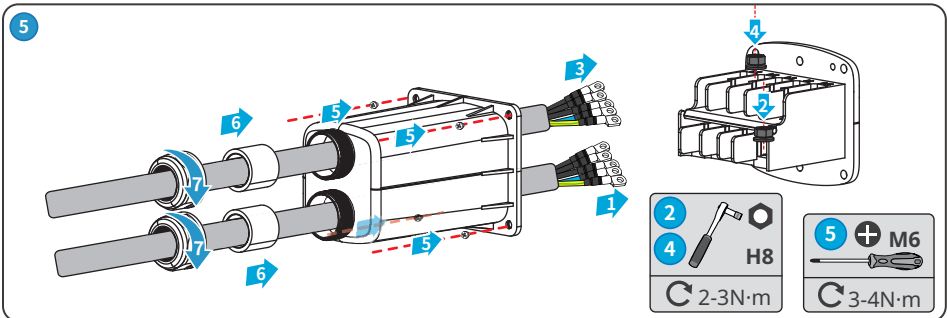
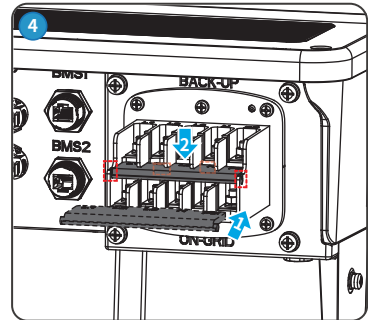
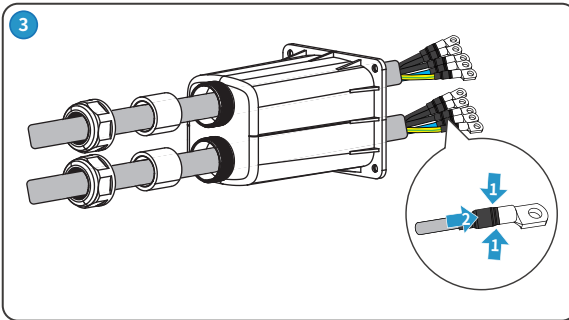
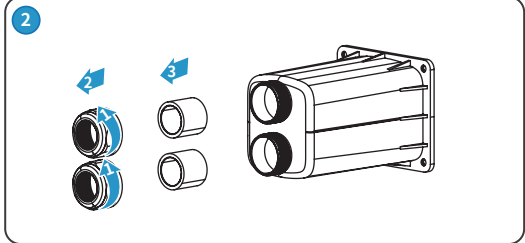
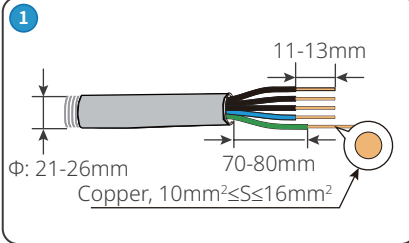
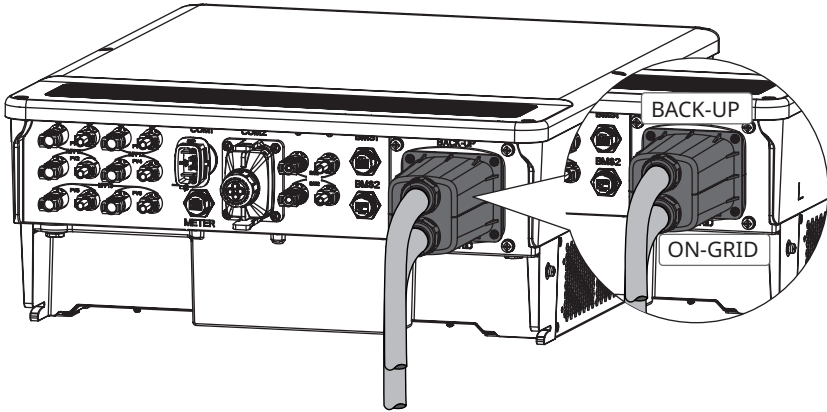


04 Electrical Connection

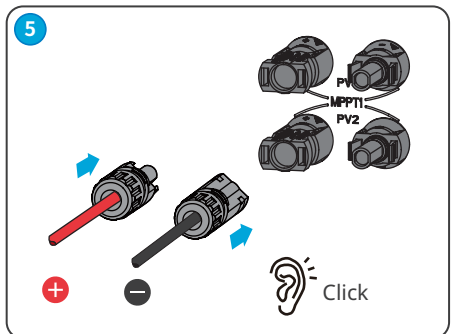
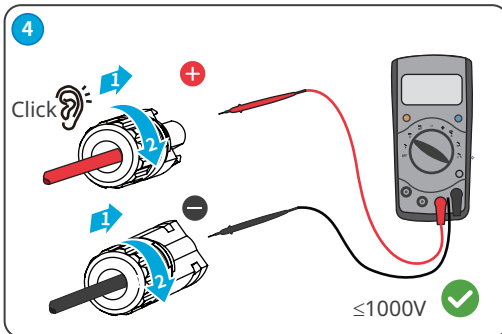
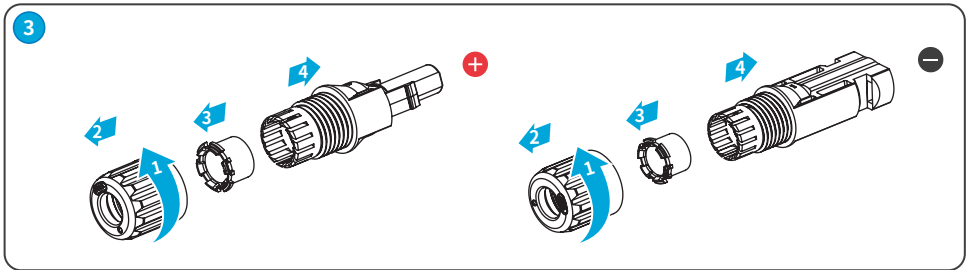
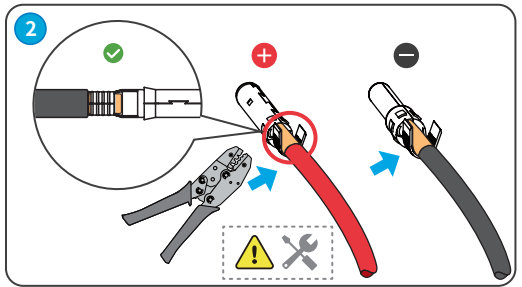
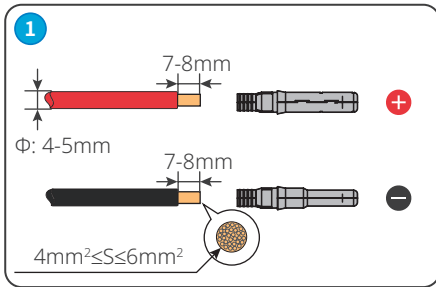
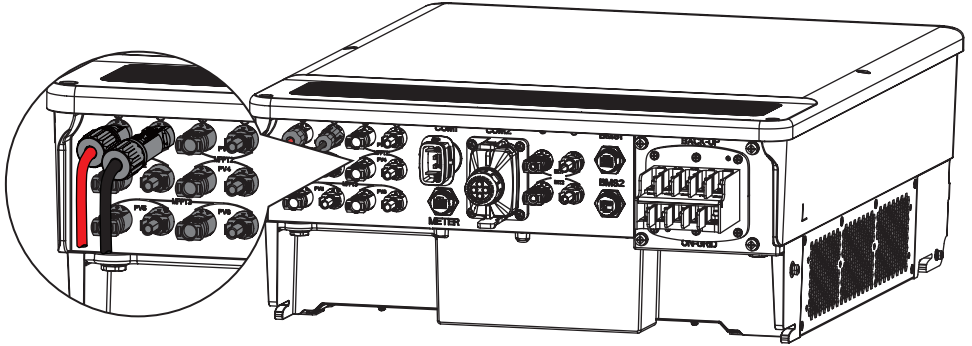
PE Cable



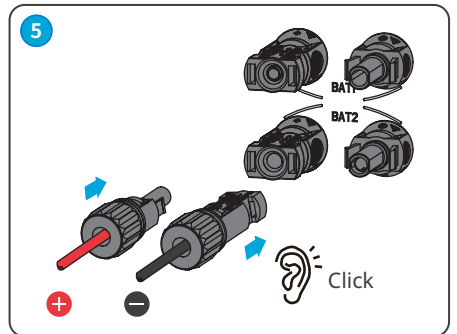
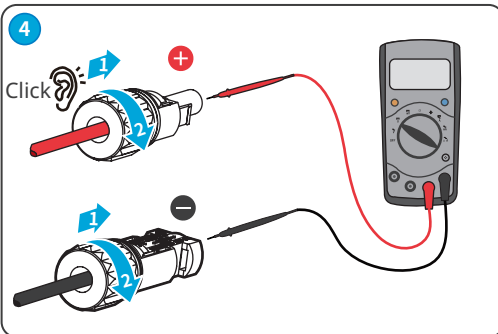
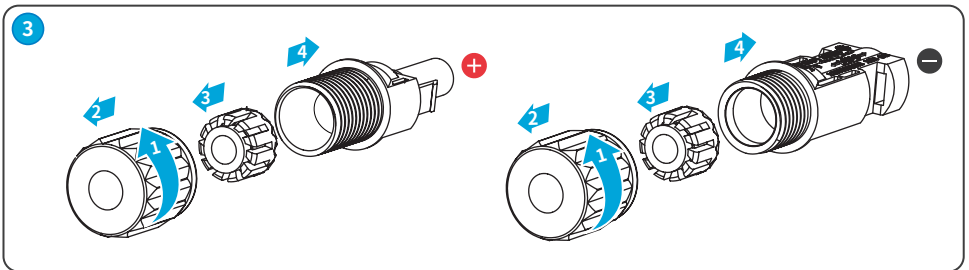
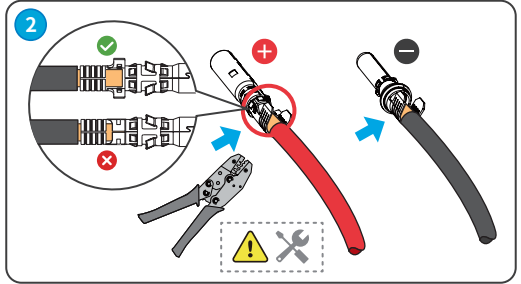
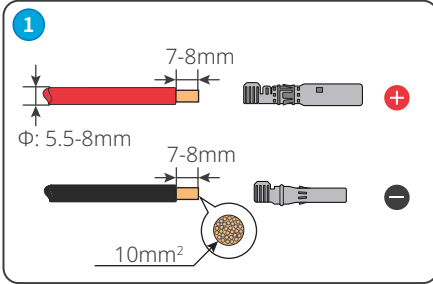
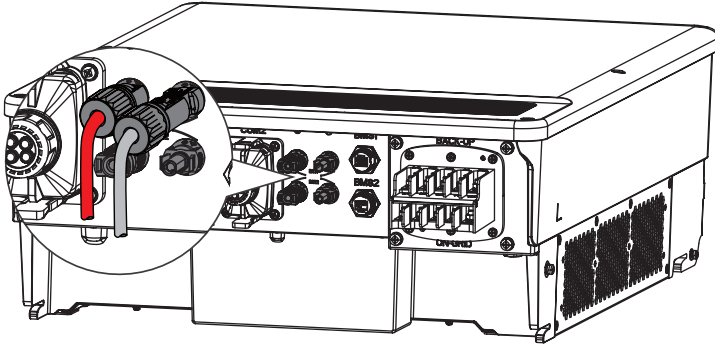
AC Cable (ON-GRID&BACK-UP)

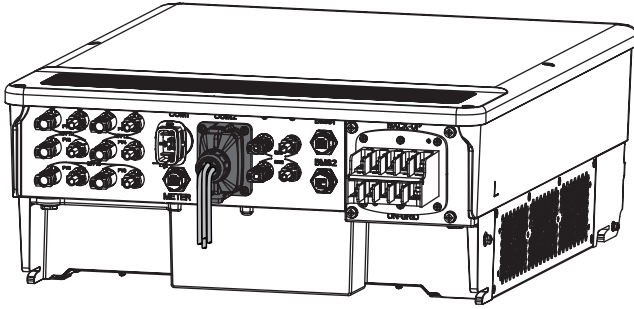


DC Cable (PV)

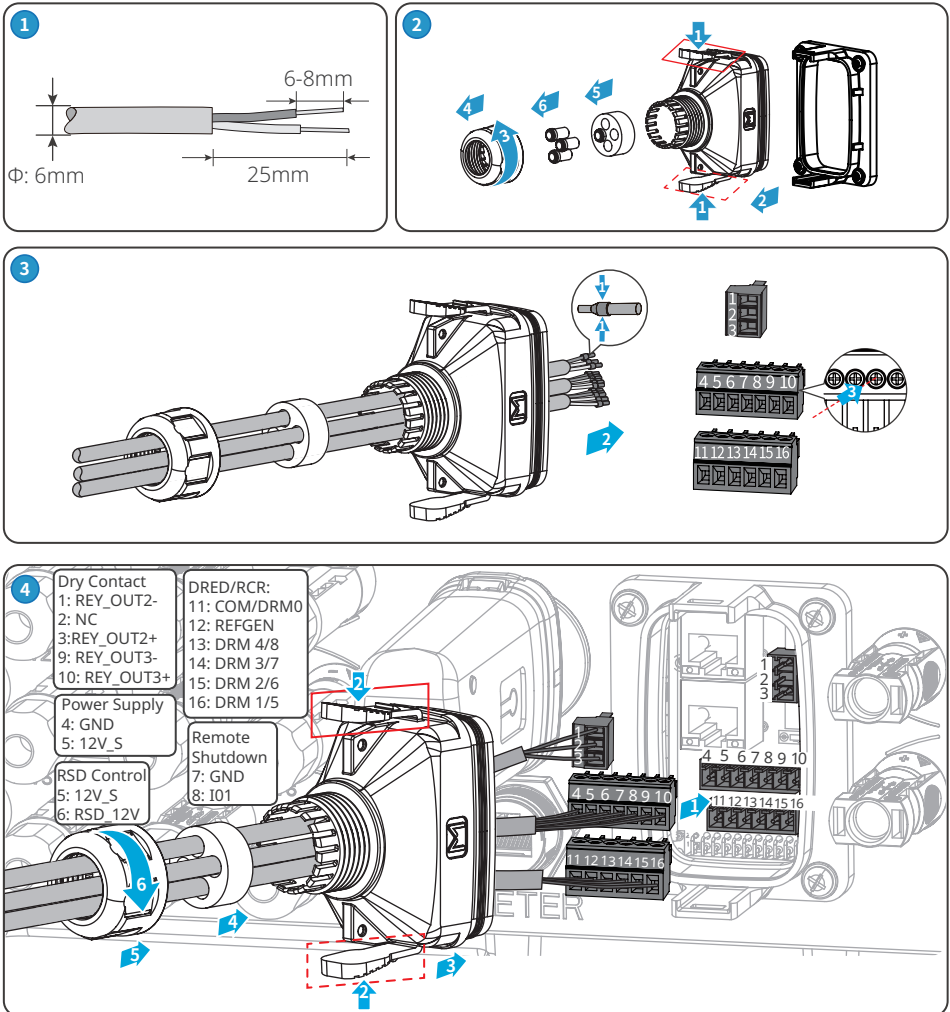


Battery Cable (BAT)

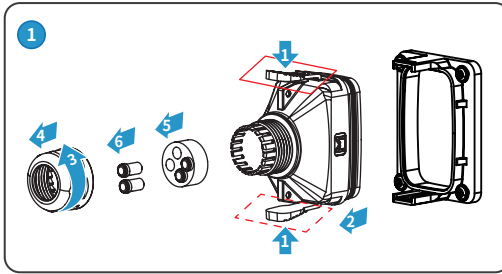




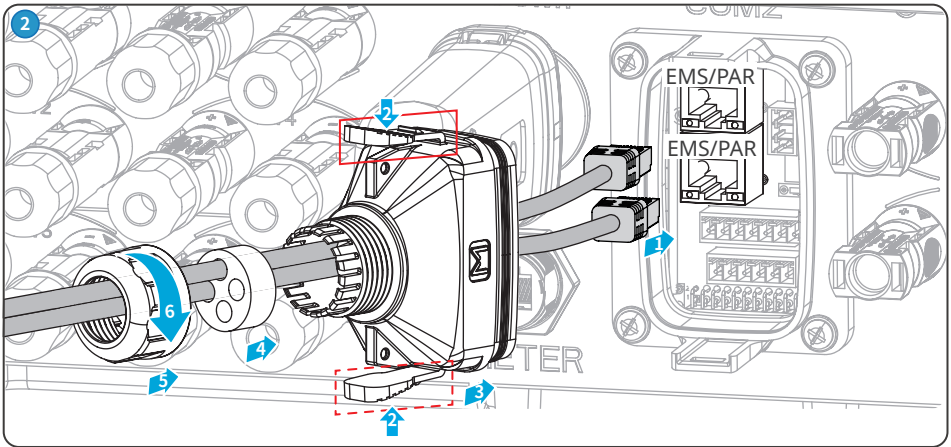
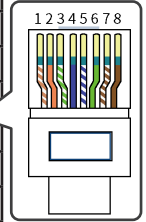
Communication Cable (PIN terminal)



Communication Cable (RJ45 network cable)

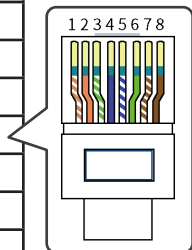


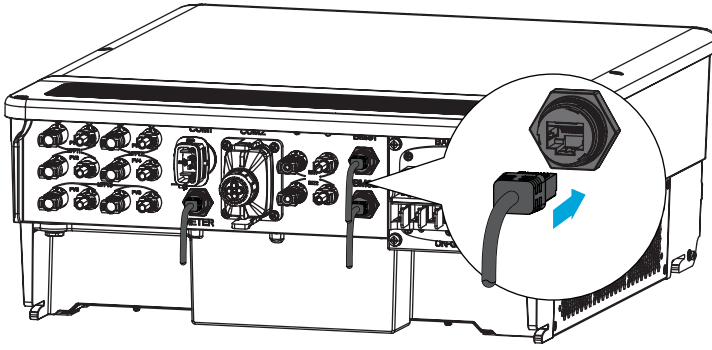
PIN	Color	EMS/PAR
1	Orange&White	485A3
2	Orange	485B3
3	Green&White	NC
4	Blue	GND
5	Blue&White	CAN_L
6	Green	CAN_H
7	Brown&White	SYN_BUS1
8	Brown	SYN_BUS2



BMS or Smart Meter

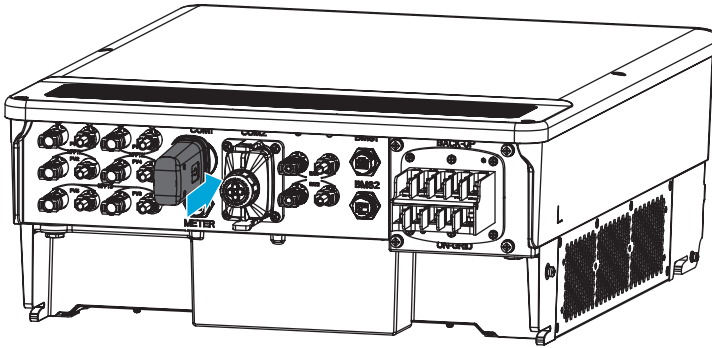
PIN	Color	Smart Meter	BMS1	BMS2
1	Orange&White	NC	485_A2	485_A4
2	Orange	NC	485_B2	485_B4
3	Green&White	NC	NC	NC
4	Blue	NC	CANH1	CANH2
5	Blue&White	NC	CANL1	CANL2
6	Green	NC	NC	NC
7	Brown&White	485_B1	NC	NC
8	Brown	485_A1	NC	NC

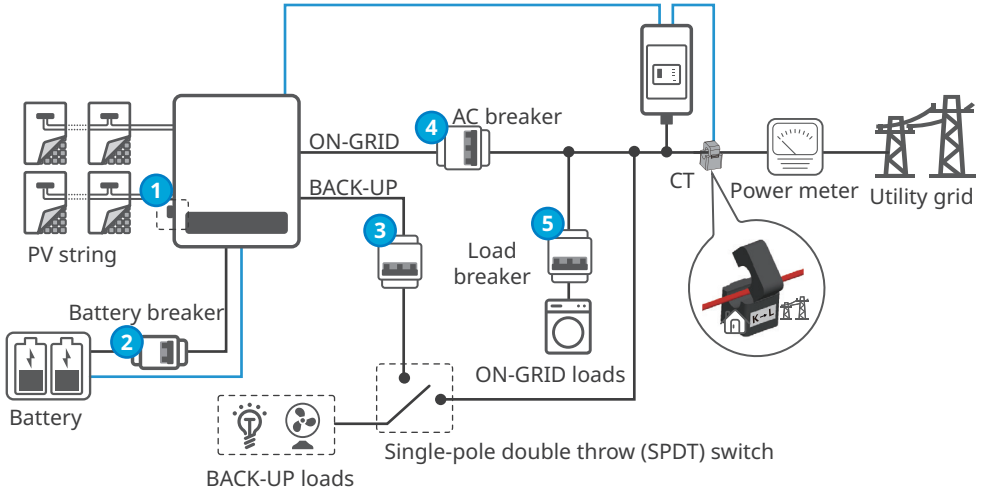




Communication Module (Optional)

Bluetooth Kit module: standard. WiFi Kit, LAN Kit, 4G Kit module: optional.



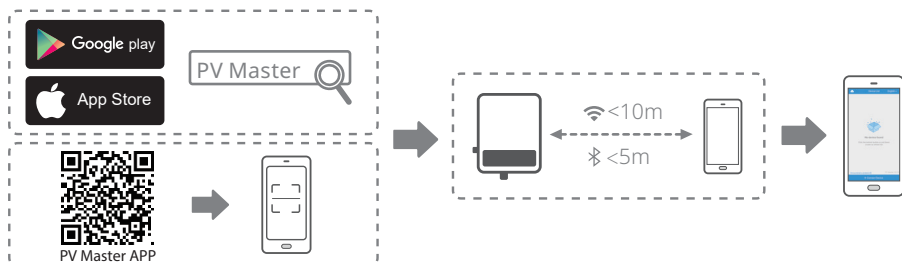
**Power On**

Turn on 4 → 2 → 1 → 5 → 3

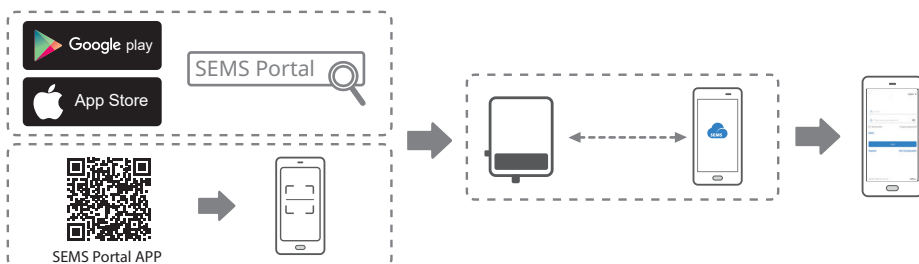
Power Off

Turn off 4 → 5 → 3 → 2 → 1

Commissioning via PV Master APP



Monitoring via SEMS Portal App




For more detailed instructions, scan the QR codes below.






Official Website

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Local Contacts