AURAWATT

USER MANUAL

SP SERIES 8-11KW



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1. Foreword & Safety Precautions

Welcome to Aurawatt! This guide covers the installation, electrical connection, and operation of the Aurawatt Hybrid inverters (Models: AW-SP-8000, AW-SP-10000 & AW-SP-11000)

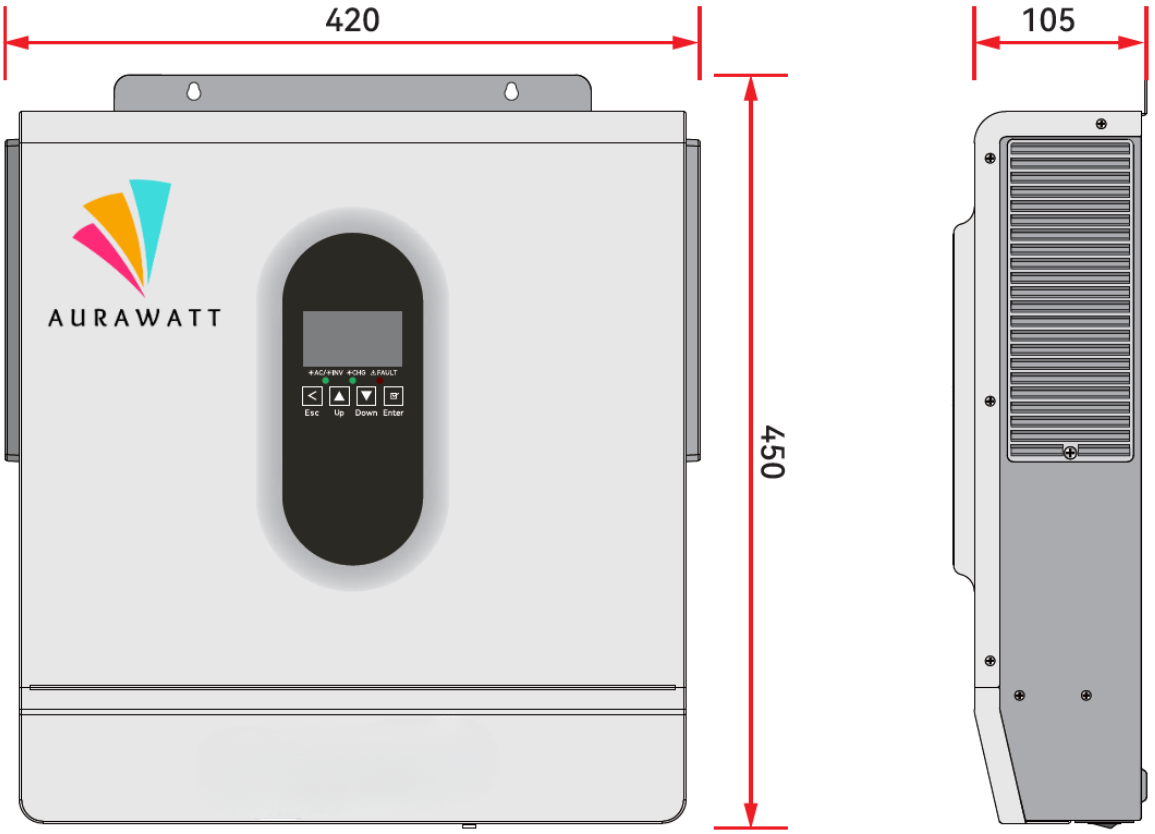
Safety First:

- **High Voltage Hazard:** The inverter operates at high voltages. Disconnect all power and wait 5 minutes for the equipment to fully discharge before performing any maintenance.
- Installation must be carried out by professional, qualified electrical technicians using insulated tools.
- Ensure that the positive and negative terminals of the PV strings and batteries are not reversed.

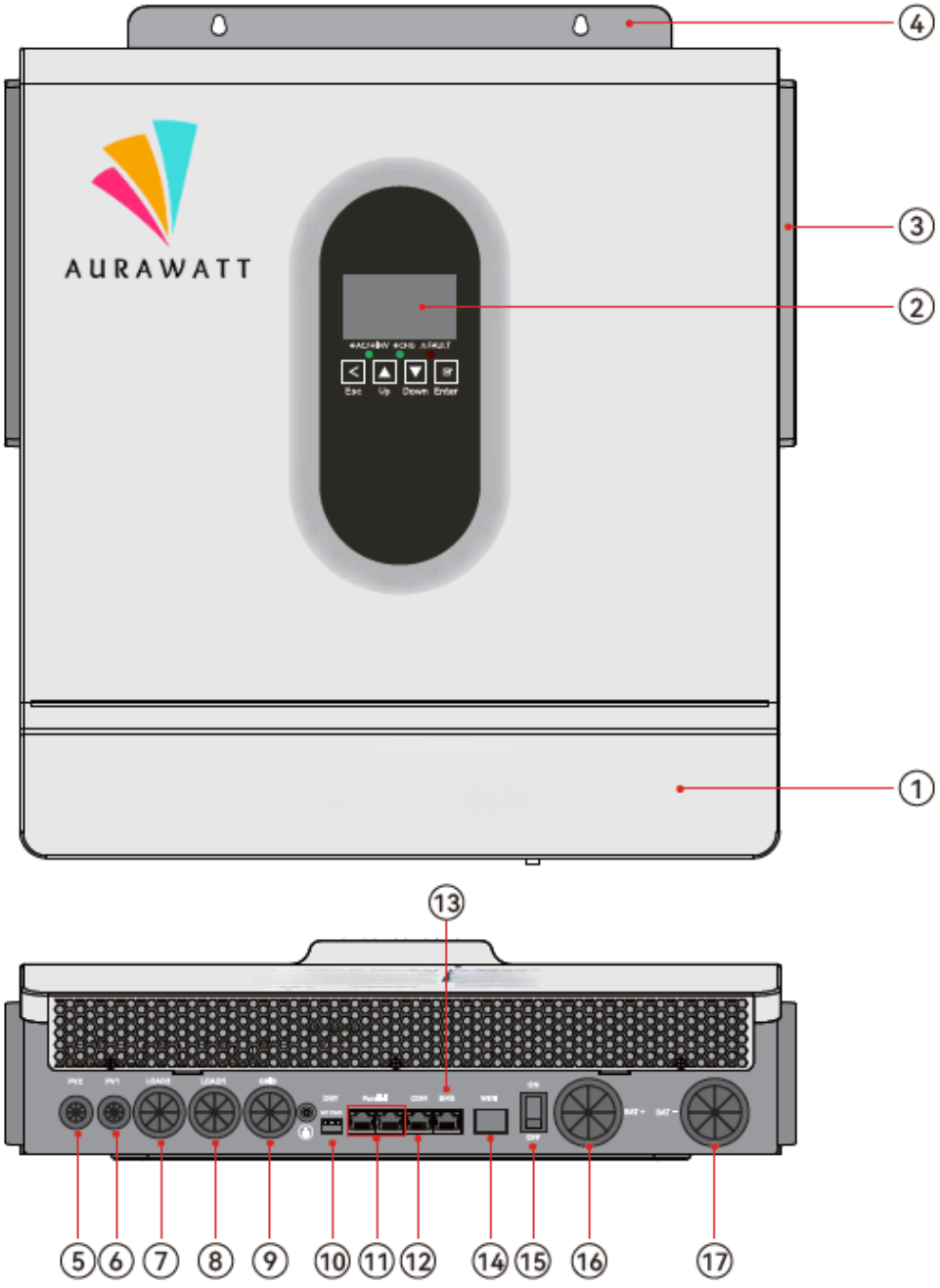
2. Product Overview

The Aurawatt Hybrid inverter optimizes energy flow between your solar panels, battery storage, and the grid.

- **Product Dimensions**



- **Product Appearance and Ports**



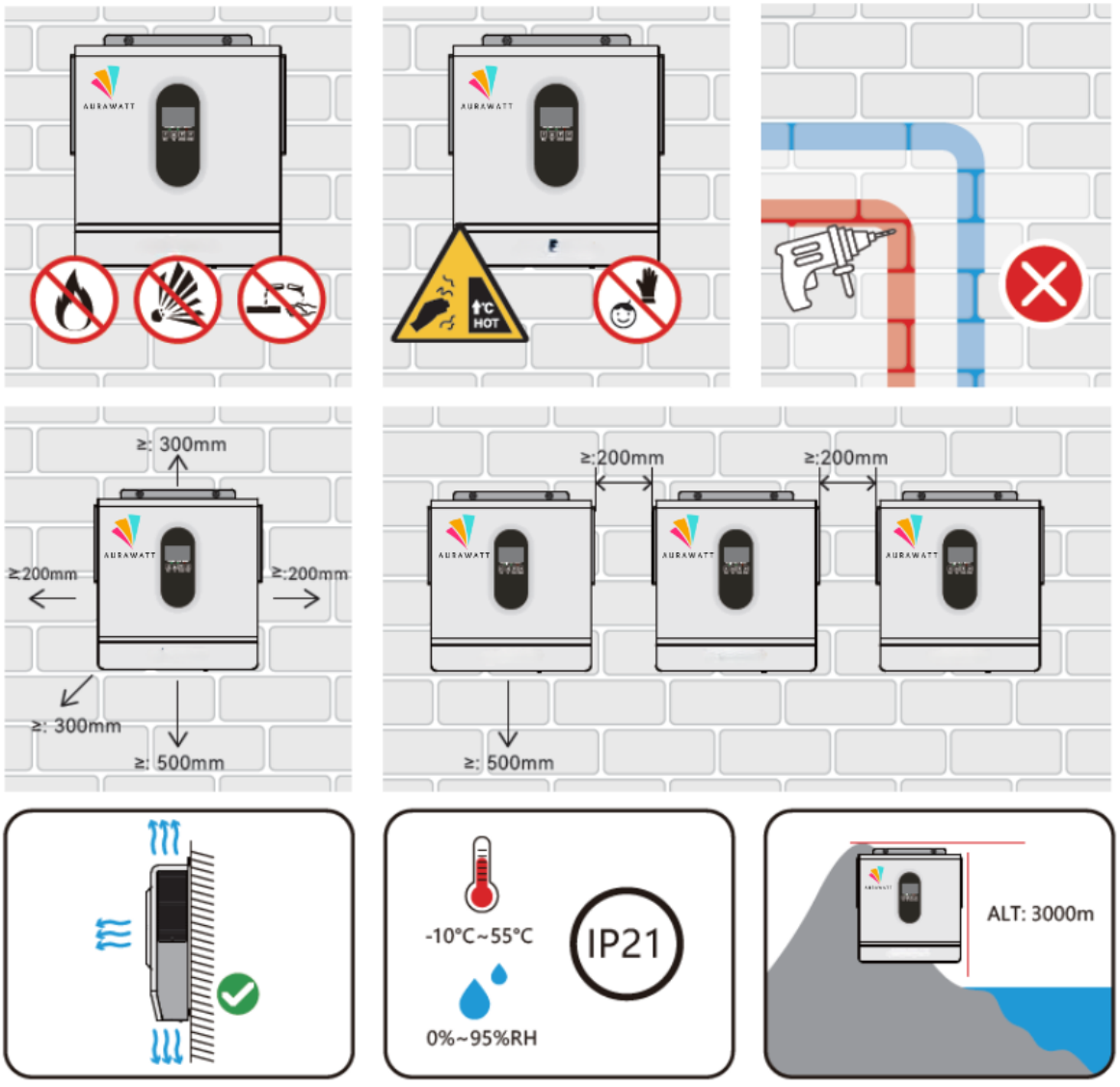
① Terminal cover
② LCD display
③ Anti-Dust Cover
④ Wall-Mount Bracket
⑤ PV2 Terminals
⑥ PV1 Terminals
⑦ LOAD2 Terminals
⑧ LOAD1 Terminals
⑨ GRID Terminals
⑩ Dry Contact Terminal
⑪ Parallel Port
⑫ COMM Port
⑬ BMS Port
⑭ WIFI Port
⑮ Power on/off switch
⑯ Battery (+) Terminal
⑰ Battery (-) Terminal

3. Installation Guide

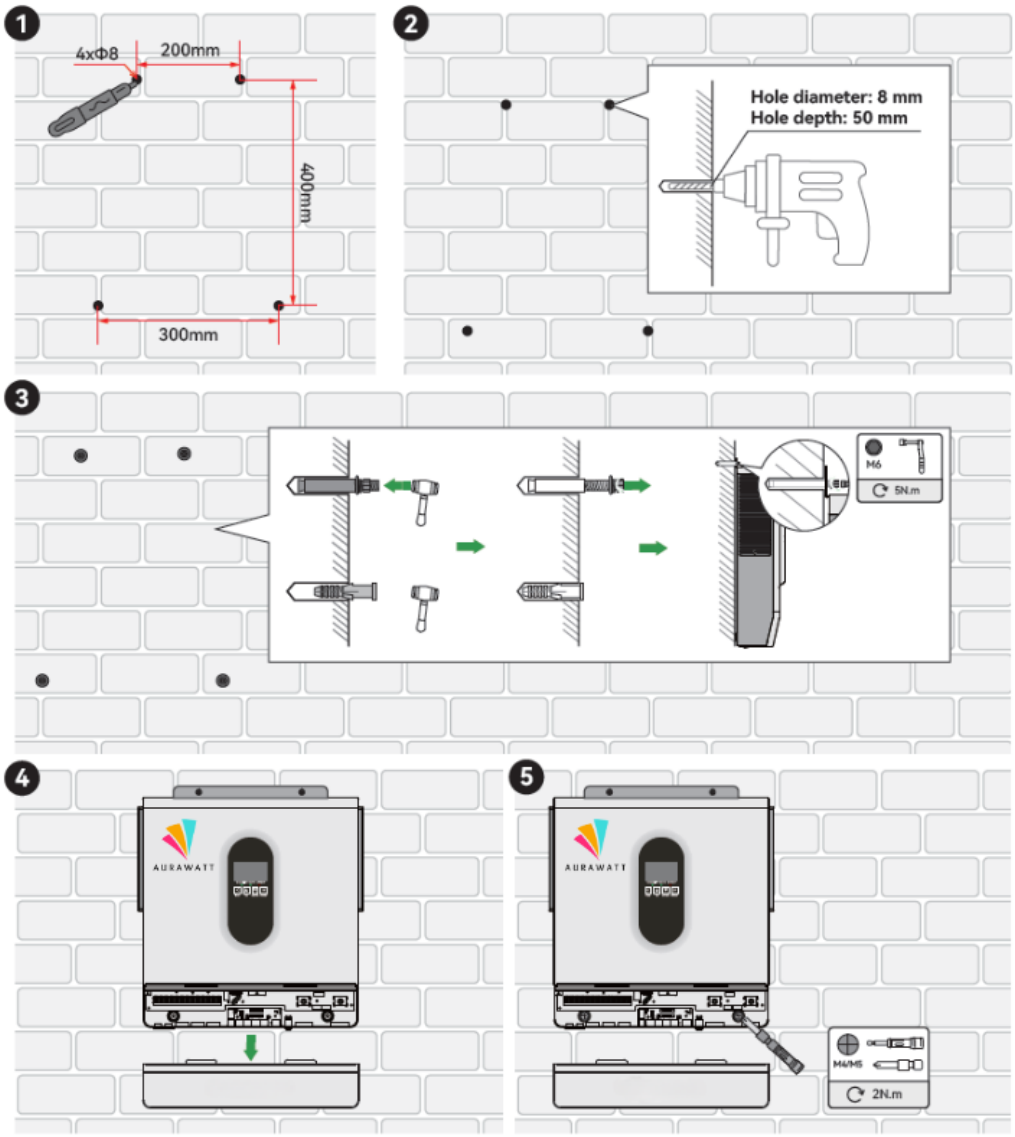
3.1 Installation Clearances and Angle

Choose a sturdy, fire-resistant wall out of reach of children.

- Clearances: Maintain at least 200mm to the left/right, 300mm above, and 500mm below the unit.
- Angle: Install vertically or tilted backward ≤ 15°. Do not install upside down or horizontally.
- Clearances and Installation Angles



3.2 Mounting the Inverter

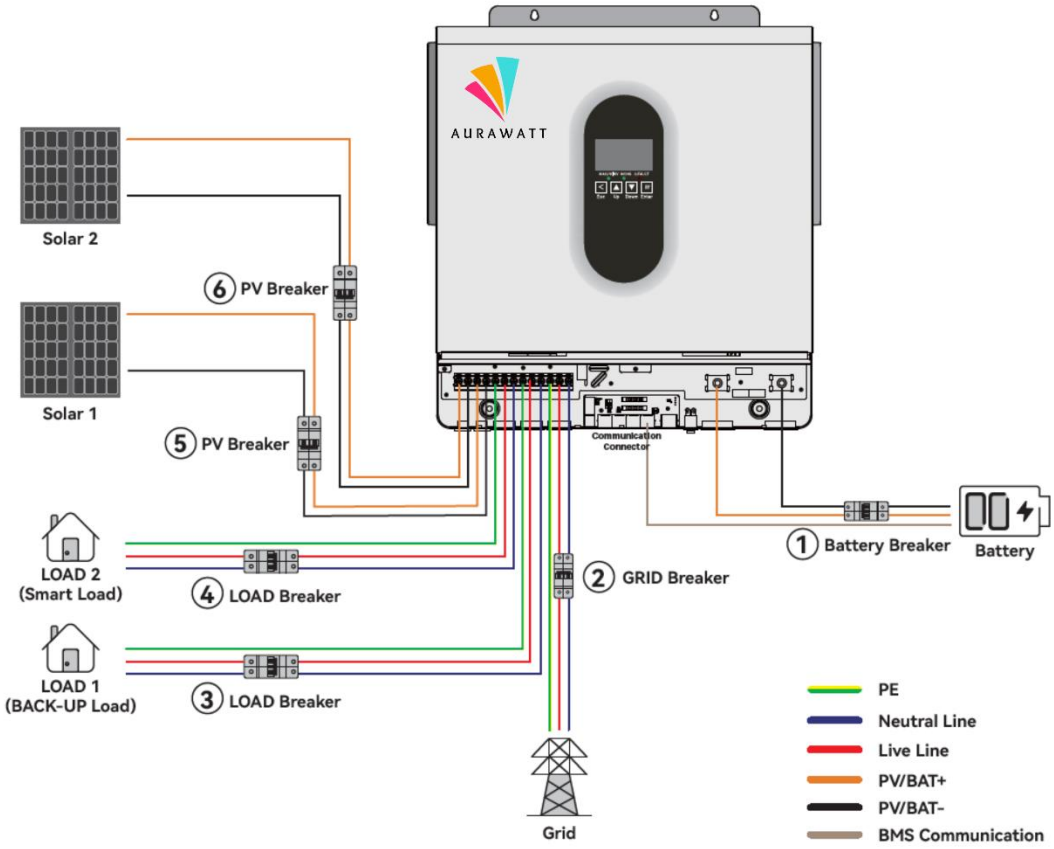


- Mark 4 holes (8mm diameter) and drill to a depth of 50mm.
- Insert M6*60 expansion screws to hang the inverter.
- Secure the bottom of the unit with M5*40 self-tapping screws.

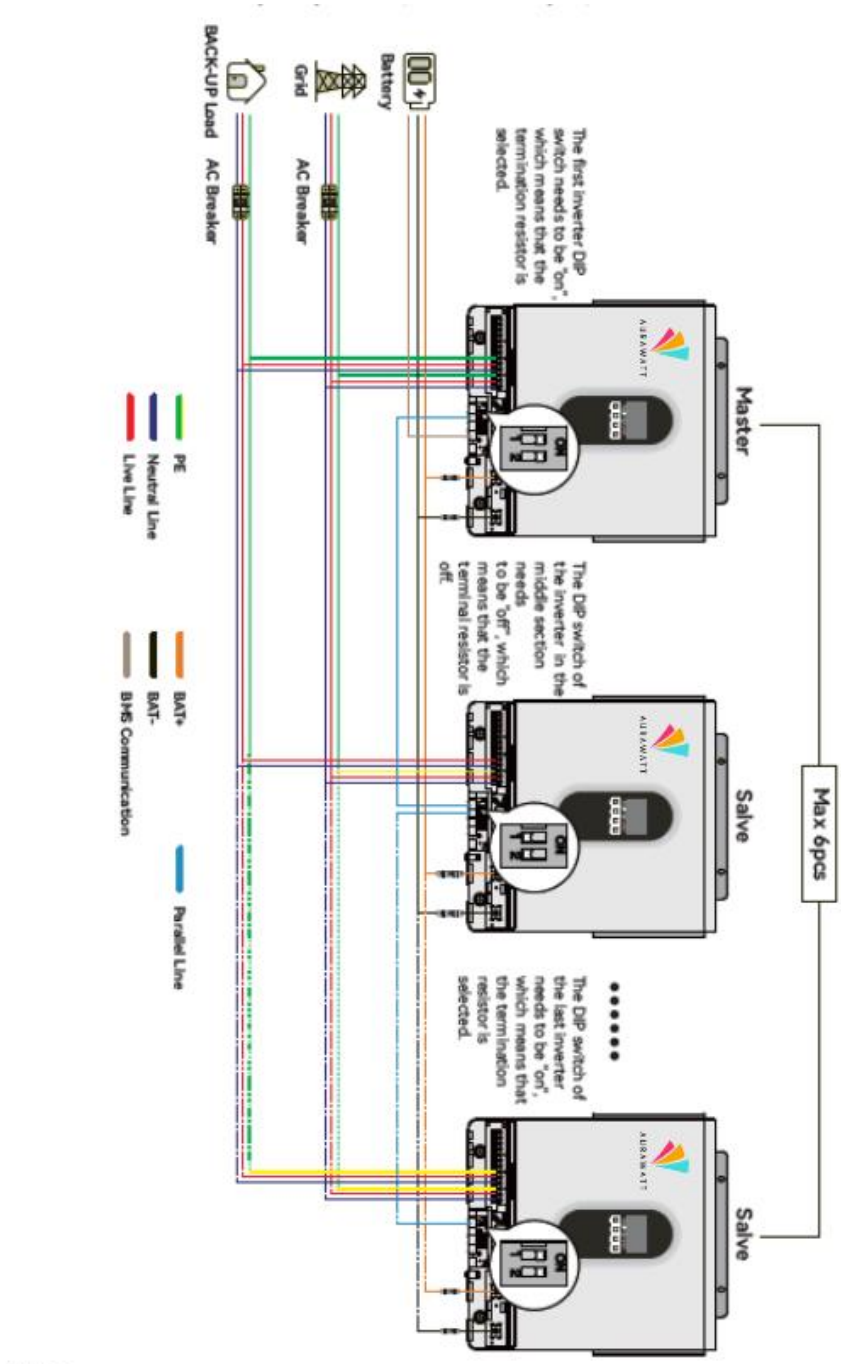
4. Electrical Connections

Warning: Ensure the inverter's DC switch and all AC breakers are disconnected before wiring.

4.1 System Wiring



- **Parallel Wiring Diagrams**

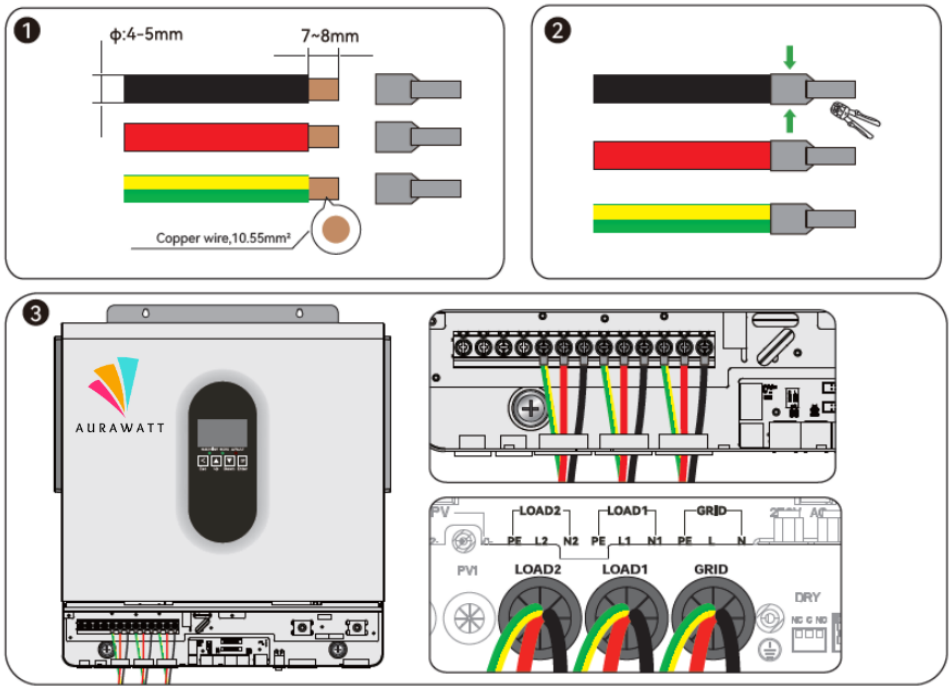


Note :
1) Supports a maximum of 6 inverters in parallel operation.
2) The communication cable length for parallel operation is less than 1.5 meters.

4.2 Port Connections

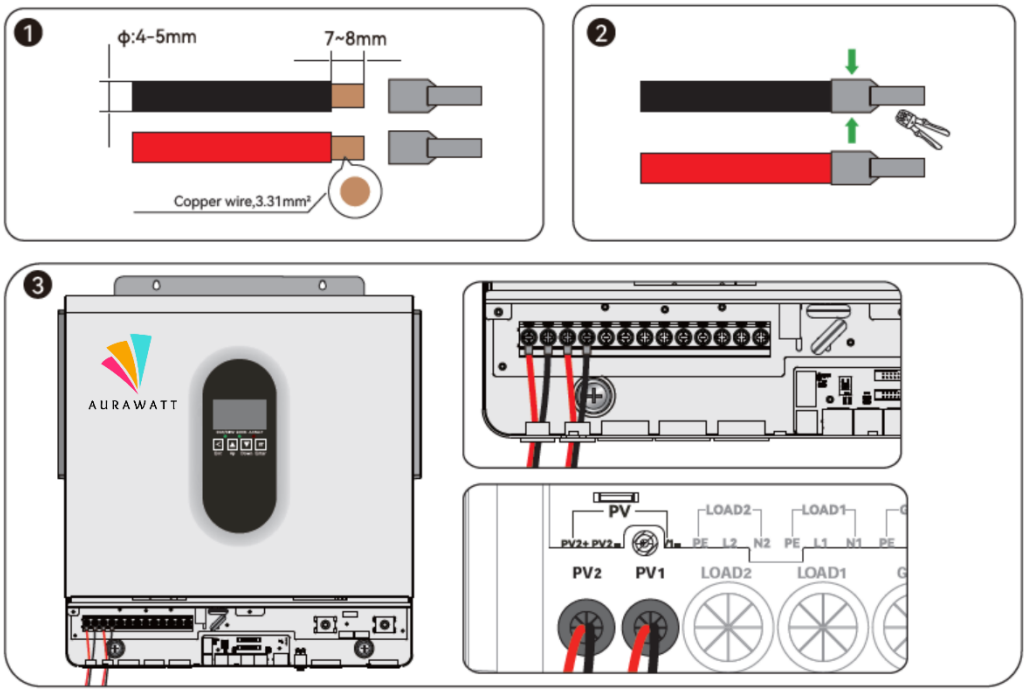
- Protective Ground: Connect a 10.55mm^2 copper cable to equipotentially bond the inverter.
- AC Connection (Grid & Load):

Serial No.	Inverter Model	Gauge (Grid-Tied)	Gauge (BACK-UP)	Gauge (Smart-Load)	Torque value
1	8K	10.55mm²	10.55mm²	10.55mm²	1~1.2N·m
2	11K	10.55mm²	10.55mm²	10.55mm²	1~1.2N·m



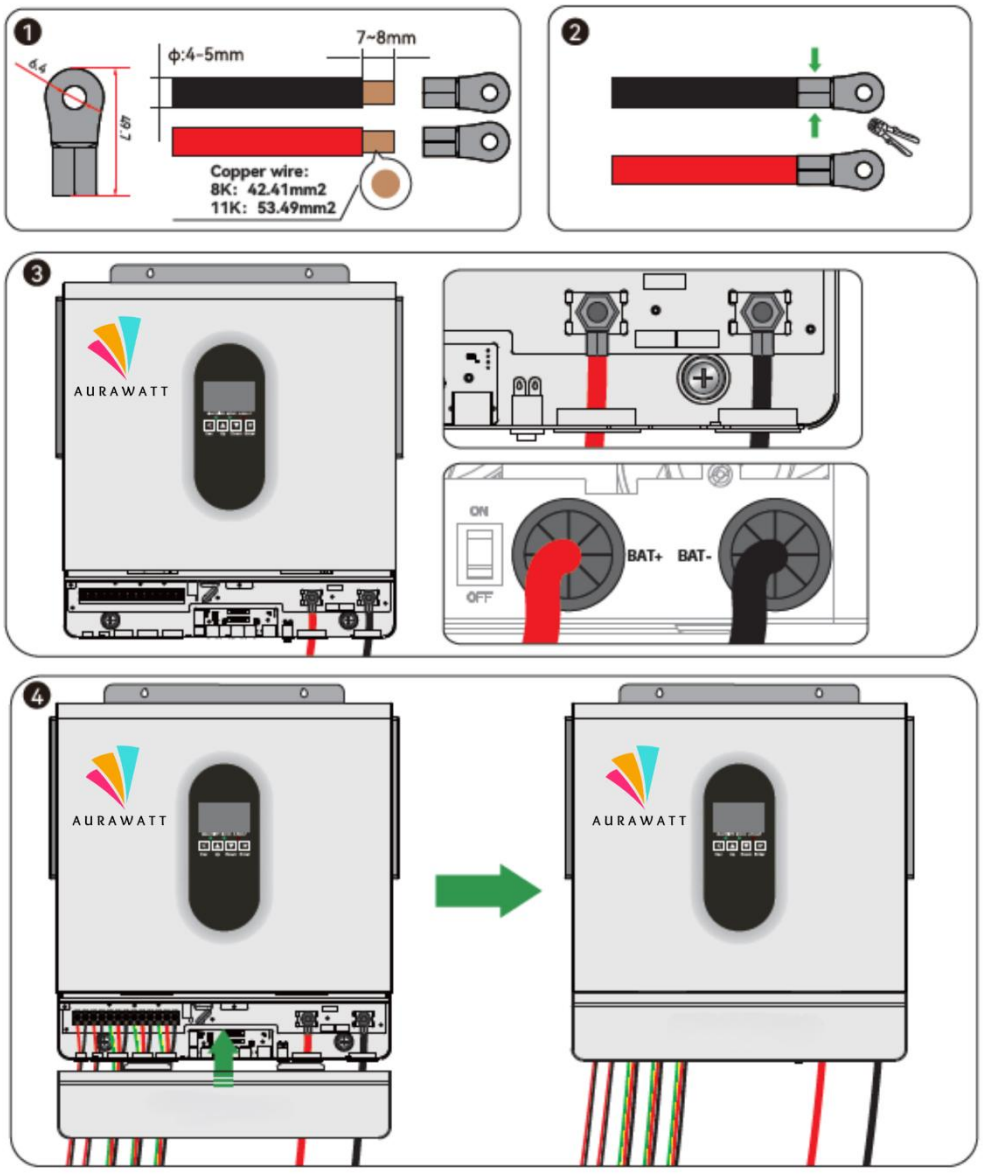
- PV Connection (Solar): Make sure the open-circuit voltage is within the 500V limit.

Serial No.	Inverter Model	Wire Size	Torque value
1	8K	3.31mm²	1~1.2N·m
2	11K	3.31mm²	1~1.2N·m



- Battery Connection: Use an external breaker and ensure polarity is correct.

Serial No.	Inverter Model	Wire Size
1	8K	42.41mm²
2	11K	53.49mm²



5. Equipment Test Run & Power-Up

Before powering up, verify that all wires are secure, properly polarized, and that unused holes are sealed.

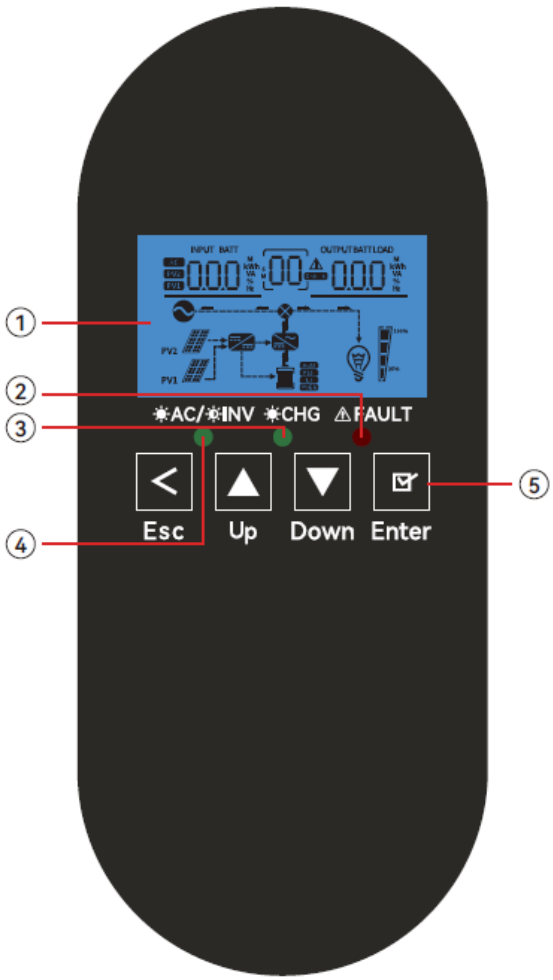
Power-Up Sequence:

1. Close the inverter LOAD AC breaker.

2. Close the inverter DC breaker between the batteries.
3. Close the PV DC breaker.
4. Close the inverter GRID AC breaker.
5. Press the On/Off switch located on the bottom of the case to turn on the unit.

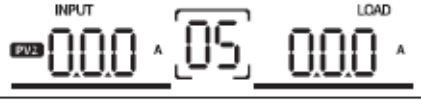
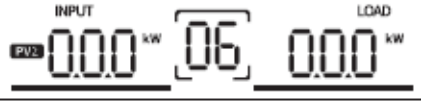
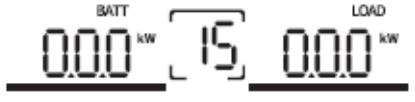
6. Operation & Display

The LCD screen will light up to display connection status, input/output power, and operating modes.



1	LCD display	4	Status indicator
2	Fault indicator	5	Function buttons
3	Charging indicator		

- LED Indicators: The AC/INV light shows power supply status, the CHG light shows battery charging, and the FAULT light turns red if an error occurs.

Page	UI	Description
0		Home Page: Left: Total PV Power Right: Load Power
1		Left: PV1Voltage Right: Load Voltage
2		Left: PV2 Voltage Right: Load Voltage
3		Left: PV1 Current Right: Load Current
4		Left: PV2 Current Right: Load Current
5		Left: PV1 Power Right: Load Power
6		Left: PV2 Power Right: Load Power
7		Left: Total PV power Right: Load power
8		Left: Input frequency Right: Load frequency
9		Left: Input Voltage Right: Load Voltage
10		Left: Input Current Right: Load Current
11		Left: Input Power Right: Load Power
12		Battery SOC
13		Left: Battery Voltage Right: Load Voltage
14		Left: Battery Current Right: Load Current
15		Left: Battery Power Right: Load Power

16		Critical Load Power
17		Smart Load Power
18		Home Load Power
DC		Total parallel power (DC): Left: PV, Right: Battery. Supported only by parallel master. Press the "UP" button on the home page
AC		Total parallel power (AC): Left: AC, Right: Load. Supported only by parallel master. Press the "UP" button on the home page

8.3.6 Electricity statistics

20-23		PV power generation - today
		PV power generation - current month
		PV power generation - current year
		PV power generation - total
24-27		AC side purchase electricity - day, month, year, total
28-31		AC side electricity sales - daily, monthly, annual, total
32-35		Load side power consumption - daily, monthly, annual, total
36-39		Battery charge capacity - day, month, year, total
40-43		Battery side discharge amount - day, month, year, total

7. App Setup

Monitor your Aurawatt inverter remotely via WiFi (requires a 2.4G network).

- App Name: **AURAWATT**

8. Maintenance & Troubleshooting

- Routine Maintenance: Clean the dust filter and bottom air outlet every 1–3 months to prevent overheating. Check electrical cables for tightness annually.
- Troubleshooting: If the system triggers a fault (e.g., Error 04: PV abnormal or Error 02: Battery abnormal), note the code on the LCD screen and reset the power. If the issue persists, contact Aurawatt Customer Service or your local distributor

AURAWATT

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