

WattMatic AIO Home Series

User Manual

Installation Video

English

Jun 2026

Legal Provisions

The information contained in this document is the property of Wuxi Wattsonic Energy Technology Co., Ltd. No part of this document may be reproduced, stored, or transmitted in any form or by any means, electronic or mechanical, without prior written permission from Wuxi Wattsonic Energy Technology Co., Ltd., except for internal use related to product evaluation or proper operation.

This documentation is provided “as is”, without warranties of any kind, either express or implied, including but not limited to implied warranties of merchantability or fitness for a particular purpose.

Wuxi Wattsonic Energy Technology Co., Ltd. shall not be liable for any indirect, incidental, or consequential damages resulting from the use of this document or the product described herein.

Specifications, descriptions, and illustrations are subject to change without prior notice. While every effort has been made to ensure accuracy, product improvements and field experience may result in updates. Wuxi Wattsonic Energy Technology Co., Ltd. shall not be responsible for damages caused by reliance on this document, including errors or omissions.

Warranty

The current warranty terms for Wattsonic WattMatic Series products can be obtained from the official website: www.wattsonic.com

Software Licenses

The licenses for installed software modules, including open-source components, are available via the product user interface.

Trademarks

Wattsonic, WattMatic, and related product names are trademarks or registered trademarks of Wuxi Wattsonic Energy Technology Co., Ltd. in Germany, South Africa, Australia, the United Kingdom, and other countries.

All other trademarks mentioned in this document are the property of their respective owners. Their use does not imply sponsorship, endorsement, or affiliation. Unauthorized use of any trademark displayed in this document or on the product is strictly prohibited.

Wuxi Wattsonic Energy Technology Co., Ltd.

Official Website: www.wattsonic.com

Customer Service: service@wattsonic.com

© 2026 Wuxi Wattsonic Energy Technology Co., Ltd. All rights reserved.

Table of Contents

1 About this Manual 4
1.1 Validity 4
1.2 Target Group 4
1.3 Content and Structure of this Document 4
1.4 Levels of Warning Messages 5

2 Safety 6
2.1 Intended Use 6
2.2 Safety Notes 6
2.3 Statement 7

3 Scope of Delivery 8
3.1 Scope of Delivery of Inverter 8
3.2 Scope of Delivery of BMS Module 10
3.3 Scope of Delivery of Battery Module 10
3.4 Scope of Delivery of Base Module 10
3.5 Scope of Delivery of Cable Cover 11
3.6 Transport 12

4 Product Overview 13
4.1 Hybrid Inverter 13
4.2 BMS Module 15
4.3 Battery Module 16
4.4 Base Module 17
4.5 Pocket WiFi 18
4.6 Interfaces and Functions 19
4.7 Symbols on the Product 20

5 Wattsonic Home Energy Solution 21
5.1 System Components 21
5.2 System Overview 22

6 Mounting 23
6.1 Requirements for Mounting 23
6.2 Product Mounting 25

7. Electrical Connection 29
7.1 Overview 29
7.2 Connecting the Grounding 31
7.3 PV String & Battery Cable Connection 33
7.4 AC Connection 37
7.5 Communication Connection 39
7.6 Meter and CT Connection 46

8 Network Connection 50
8.1 Inverter Network Connection 50
8.2 BMS Network Connection 52

9 Commissioning 53
9.1 Inspection Before Commissioning 53
9.2 Powering On the System 53
9.3 Powering Off the System 54

10 Operation 55
10.1 Inverter Screen 55
10.2 WattDesk APP & Website 57

11 Troubleshooting 59
11.1 Error Message 59
11.2 Inverter Maintenance 59
11.3 Battery Maintenance 60

12 Technical Data 61
12.1 Battery Parameters 61
12.2 Inverter Parameters 62

13 Contact 63

1 About this Manual

1.1 Validity

This document is valid for:

- MATIC–10/12/15/20/25KW–50A
- Matic AIO Series 7.6/11.5/15.3/19.2/23.0/26.8/30.7/34.5 kWh

1.2 Target Group

This document is intended for installer/qualified electrician and end user (operation only). Only qualified persons are allowed to perform the activities marked in this document with a warning symbol and the caption"Qualified person". Tasks that do not require any particular qualification are not marked and can also be performed by end users. Qualified persons must have the following skills:

- Training in the installation, commissioning, and maintenance of electrical systems
- Training to identify and handle hazards associated with electrical devices, inverters, and battery systems
- Knowledge of how Wattsonic inverters and energy storage systems operate
- Knowledge of how batteries operate, including basic safety principles
- Knowledge of how to safely disconnect and isolate Wattsonic inverters and battery systems
- Familiarity with this manual and all related documentation
- Knowledge of and compliance with local laws, regulations, standards, and directives
- Knowledge of and compliance with all safety instructions in this document
- Knowledge of and compliance with the battery manufacturer's documentation and safety instructions

1.3 Content and Structure of this Document

This document describes the mounting, installation, commissioning, configuration, operation, troubleshooting, and decommissioning of the Wattsonic WattMatic Series, as well as the operation of the product user interface. Before installing and using the product, please read this manual carefully, understand all safety information, and become familiar with the product's functions and characteristics.

- The latest version of this manual is available in PDF format and as an eManual at www.wattsonic.com
- The eManual can also be accessed via the product user interface
- Illustrations in this document are for reference only and may differ from the actual product
- Manual content may be updated as the product evolves
- To report inaccuracies or omissions, please contact service@wattsonic.com

1.4 Levels of Warning Messages

The following levels of warning messages may occur when handling the product.

⚠ DANGER

Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

⚠ NOTICE

Indicates a situation which, if not avoided, can result in property damage.

2 Safety

2.1 Intended Use

The hybrid solar system is usually composed of the PV array, hybrid inverter, lithium battery, loads and power grid.

The MATIC–10.0~25.0KW–50A series inverter is also known as hybrid inverter or storage inverter, which is mainly used to combine the PV array, lithium battery, loads and power grid to realize intelligent power management and dispatching.

2.2 Safety Notes

- Before installation, please read this manual carefully and follow the instructions in this manual strictly.
- Installers need to undergo professional training or obtain electrical related professional qualification certificates.
- When installing, do not open the front cover of the inverter. Apart from performing work at the wiring terminal (as instructed in this manual), touching or changing components without authorization may cause injury to people, damage to inverters and annulment of the warranty.
- All electrical installations must conform to local electrical safety standards.
- If the inverter needs maintenance, please contact the local designated personnel for system installation and maintenance.
- To use this inverter for power generation needs the permission of the local power supply authority.
- The temperature of some parts of the inverter may exceed 60° C during operation. To avoid being burnt do not touch the inverter during operation. Let it cool before touching it.
- When exposed to sunlight, the PV array generates dangerous high DC voltage. Please operate according to our instructions, or it will result in danger to life.
- When wiring the lithium battery terminals, please disconnect the breaker or switch of the lithium battery in case of a physical injury caused by the high voltage.

⚠ WARNING

1. Read this entire document before installing or using WattMatic hybrid inverter. Failure to do so or to follow any of the instructions or warnings in this document can result in electrical shock, serious injury, or death, or can damage Battery, potentially rendering it inoperable.
2. A battery can present a risk of electrical shock, fire, or explosion from vented gases. Observe proper precautions.
3. WattMatic hybrid inverter installation must be carried out only by WattMatic Certified Installers, who have been trained in dealing with high voltage electricity.
4. WattMatic hybrid inverter is heavy and challenging to lift.

⚠ CAUTION

Do not use fluids, parts, or accessories other than those specified in this manual, including use of non–genuine WattMatic parts or accessories, or parts or accessories not purchased directly from WattMatic or a WattMatic –certified party.

⚠ CAUTION

Environmental Conditions:

Ensure that no water sources are above or near WattMatic hybrid inverter, including downspouts, sprinklers, or faucets.

⚠ WARNING

1. Before beginning the wiring portion of the installation, first power off the inverter and then open the AC and DC disconnect switches (if applicable for the installation).
2. WattMatic hybrid inverter contains components, such as switches and relays, that can produce arcs or sparks.
3. To protect WattMatic hybrid inverter and its components from damage when transporting, handle with care. Do not impact, pull, drag, or step on WattMatic hybrid inverter. Do not subject WattMatic hybrid inverter to any strong force. To help prevent damage, leave WattMatic hybrid inverter in its shipping packaging until it is ready to be installed.
4. Do not insert foreign objects into any part of WattMatic hybrid inverter.
5. Do not expose WattMatic hybrid inverter or its components to direct flame.
6. Do not install WattMatic hybrid inverter near heating equipment.
7. Do not immerse WattMatic hybrid inverter or its components in water or other fluids.

⚠ WARNING

Environmental Conditions:

1. Operating or storing WattMatic hybrid inverter in temperatures outside its specified range might cause damage to WattMatic hybrid inverter.
2. Do not expose the WattMatic hybrid inverter to ambient temperatures above 60°C (140°F) or below –30°C (–22°F).

2.3 Statement

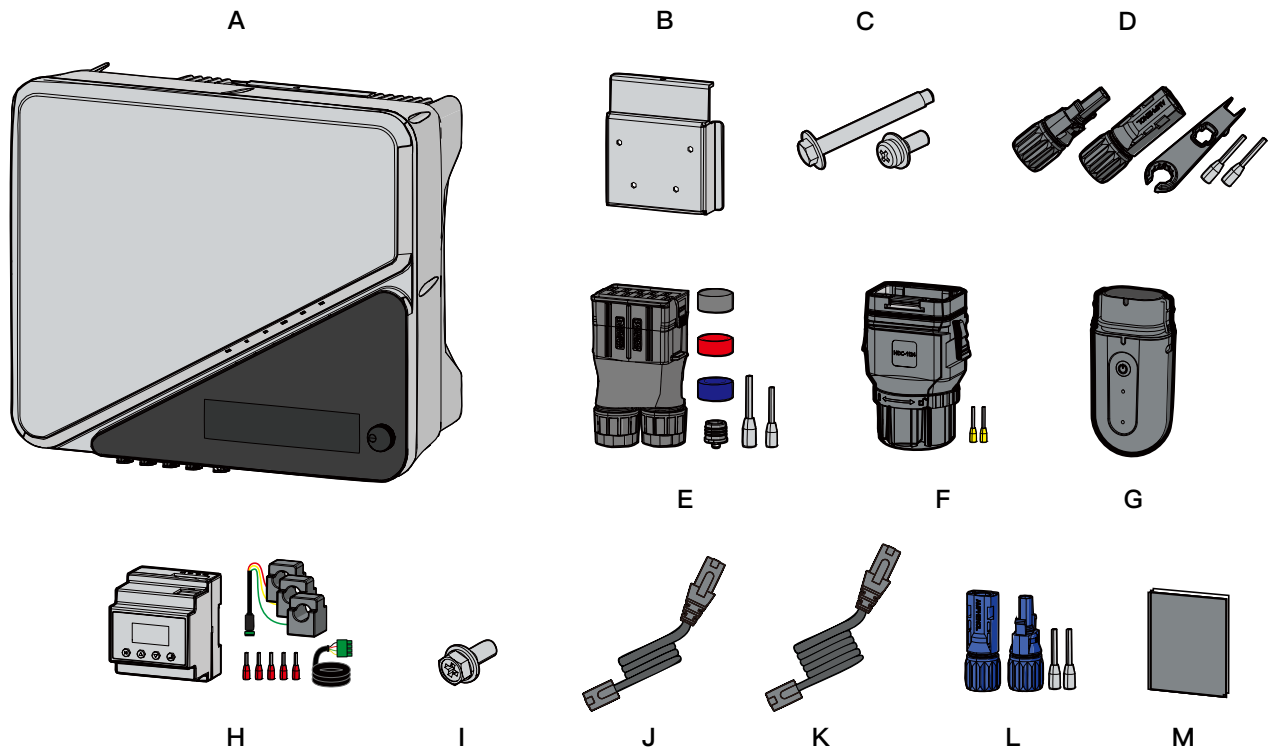
Wuxi Wattsonic Energy Technology Co., Ltd has the right not to undertake quality assurance in any of the following circumstances:

- Damages caused by improper transportation.
- Damages caused by incorrect storage, installation or use.
- Damages caused by installation and use of equipment by non–professionals or untrained personnel.
- Damages caused by failure to comply with the instructions and safety warnings in this document.
- Damages of running in an environment that does not meet the requirements stated in this document.
- Damages caused by operation beyond the parameters specified in applicable technical specifications.
- Damages caused by unauthorized disassembly, alteration of products or modification of software codes.
- Damages caused by abnormal natural environment (force majeure, such as lightning, earthquake, fire, storm, etc.).
- Any damages caused by the process of installation and operation which don't follow the local standards and regulations.
- Products beyond the warranty period.

3 Scope of Delivery

Check the scope of delivery for any externally visible damage. If any damage is detected, document the affected areas and immediately inform Wuxi Wattsonic Energy Technology Co., Ltd.
Do not commission the WattMatic Series product under any circumstances if components are damaged.

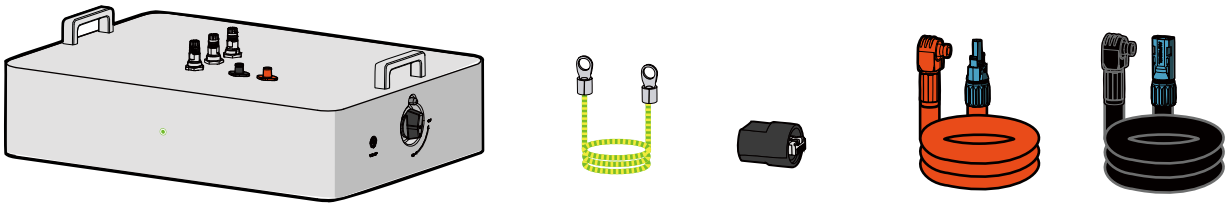
3.1 Scope of Delivery of Inverter



No.	Component Name	Barcode	QTY	Description
A	Inverter		1	MATIC–10.0~25.0KW–50A
B	Wall–mounting Bracket	WM–A–801	1	For wall installation of the inverter
C	Wall–mounting Bracket Screws	WM–A–802		
	M5×14 Phillips Pan Head Combo Screw		1	For inverter–to–bracket mounting
	M6×60 Expansion Bolt		4	For securing bracket to wall
D	PV Connector Kit	WM–A–701		
	PV Connector (Male) with Core		2/4	Male terminals for PV connection
	PV Connector (Female) with Core		2/4	Female terminals for PV connection
	Plastic Wrench		1	For disassembling PV connectors

No.	Component Name	Barcode	QTY	Description
E	AC Connector Kit	WM–A–702		
	AC Connector		1	For AC cover & wiring installation
	Copper Pin Terminal DTD–6		10	For power cable connection (MATIC–10/12 kW models)
	Copper Pin Terminal DTD–10		5	For power cable connection (MATIC–15/20/25 kW models)
	Copper Pin Terminal DTD–16		5	
F	COM Connector Kit	WM–A–703		
	COM Connector		1	For connection of the integrated communication port to BMS, meter and other external devices
	Ferrule Terminal		20	For wiring; E0510 yellow
G	Pocket WiFi	WC–A–601	1	For wireless communication
H	Meter & CT Accessories	WC–A–602		
	iMeter		1	Smart meter, for power monitoring
	3–Phase Integrated CT Cable		1	Integrated current transformers for three phases, used with the smart meter to measure grid current
	Ferrule Terminal		10	For wiring with energy meter; E1506 red
	Voltage Sampling Cable		1	For grid voltage sampling
I	M5×10 Hex Head Combination Screw	WM–A–803	2	For grounding
J	RJ45 Cable for BMS	WC–A–704	1	For BMS communication, 3 m
K	RJ45 Cable for Meter	WC–A–705	1	For meter communication, 10 m
L	Battery Terminal Set	WC–A–707	1	For battery system wiring (Optional. Supplied as a pre–assembled wiring harness inside the BMS enclosure when using Wattsonic batteries.)
M	Documentation Pack	WM–A–901		
	Backsheet Positioning Card		1	Used to mark mounting positions and ensure accurate installation
	User Manual		1	/
	Certificate		1	/
	Inspection Report		1	/
	Packing List		1	/

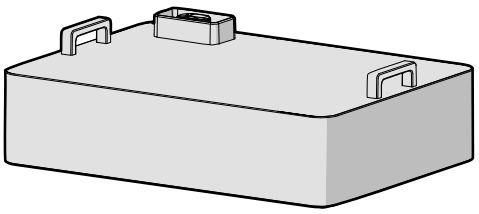
3.2 Scope of Delivery of BMS Module



A B C D E

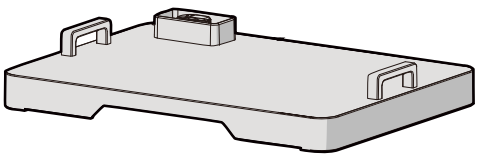
No.	Component Name	QTY	Description
A	BMS Module	1	For AC cover & wiring installation
B	Grounding Cable	1	For protective grounding connection
C	Termination Resistor	1	For terminating the communication bus to ensure signal stability
D	Positive Power Cable	1	For positive power connection between BMS and inverter
E	Negative Power Cable	1	For negative power connection between BMS and inverter

3.3 Scope of Delivery of Battery Module



Component Name	QTY	Description
Battery Module	1	3.84kWh battery module

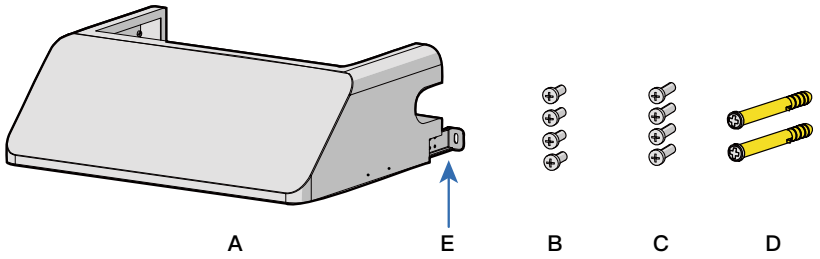
3.4 Scope of Delivery of Base Module



Component Name	QTY	Description
Base Module	1	–

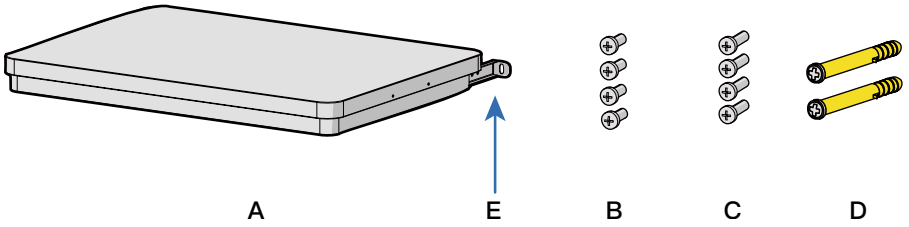
3.5 Scope of Delivery of Cable Cover

Type–A



No.	Component Name	QTY	Description
A	Cable Cover–Type A	1	For use on the top of the BMS connected to the inverter
B	M4 × 10 Combination Screw	4	For fastening the L–shaped wall mounting bracket to the BMS
C	M4 × 16 Screw	4	Used to secure the L–shaped wall mounting bracket to the cable cover, allowing adjustment based on the distance between the energy storage system and the wall
D	M6 Expansion Bolt	2	For securing the L–shaped wall mounting bracket to the wall
E	L–shaped Wall Mounting Bracket	2	For securing the battery system to the wall

Type–B



No.	Component Name	QTY	Description
A	Cable Cover–Type B	1	For use on the top of the BMS in parallel cluster installations
B	M4 × 10 Combination Screw	4	For fastening the L–shaped wall mounting bracket to the BMS
C	M4 × 16 Screw	4	Used to secure the L–shaped wall mounting bracket to the cable cover, allowing adjustment based on the distance between the energy storage system and the wall
D	M6 Expansion Bolt	2	For securing the L–shaped wall mounting bracket to the wall
E	L–shaped Wall Mounting Bracket	2	For securing the battery system to the wall

3.6 Transport

⚠ NOTICE

This section contains safety information that must be observed at all times when transporting the products.

Unpacking and Storage

The device is thoroughly tested and strictly inspected before delivery. Nonetheless, damage may still occur during shipping. For this reason, please conduct a thorough inspection after receiving the device.

Contact Wattsonic or the transport company in case of any damage or incompleteness, and provide photos to facilitate services.

Inverter Storage

If the inverter is not put into operation immediately, it needs to be stored under specific environmental conditions.

- Repack using the original packaging box and retain the desiccant.
- Storage temperature range: –40℃~70℃, relative humidity range: 0~80%, no condensation.
- If a batch of inverters needs to be stored, the height of each pile should be no more than 5 levels.
- The packaging box must not be tilted or inverted.
- If the product needs to be transported again, ensure strict packaging before loading for shipment.
- Do not store the product in locations exposed to direct sunlight, rain, strong electric fields, etc.
- Do not store this product together with items that may affect or damage it.
- The inverter must be stored in a clean and dry place, protected from dust and moisture.
- Do not store the inverter in areas with chemical corrosive substances or pest infestations.
- Conduct regular inspections. Inspect at least every six months. If signs of pest damage (e.g., rodents or insects) are found, replace the packaging materials promptly.
- If the inverter is stored for one year or longer, it must undergo inspection and testing by qualified personnel before being put into operation.

Battery Transport

The Wattsonic WattMatic Series battery system is classified as dangerous goods:
UN 3480 Lithium–ion Battery, Class 9.

All battery safety instructions must be strictly observed (see the relevant Wattsonic battery safety documentation available at www.wattsonic.com).

All requirements of applicable regulations for the transport of dangerous goods by road, rail, and inland waterways, as well as the ADR (European Agreement concerning the International Carriage of Dangerous Goods by Road), must be complied with at all times.

⚠ CAUTION

Risk of injury due to inappropriate transport

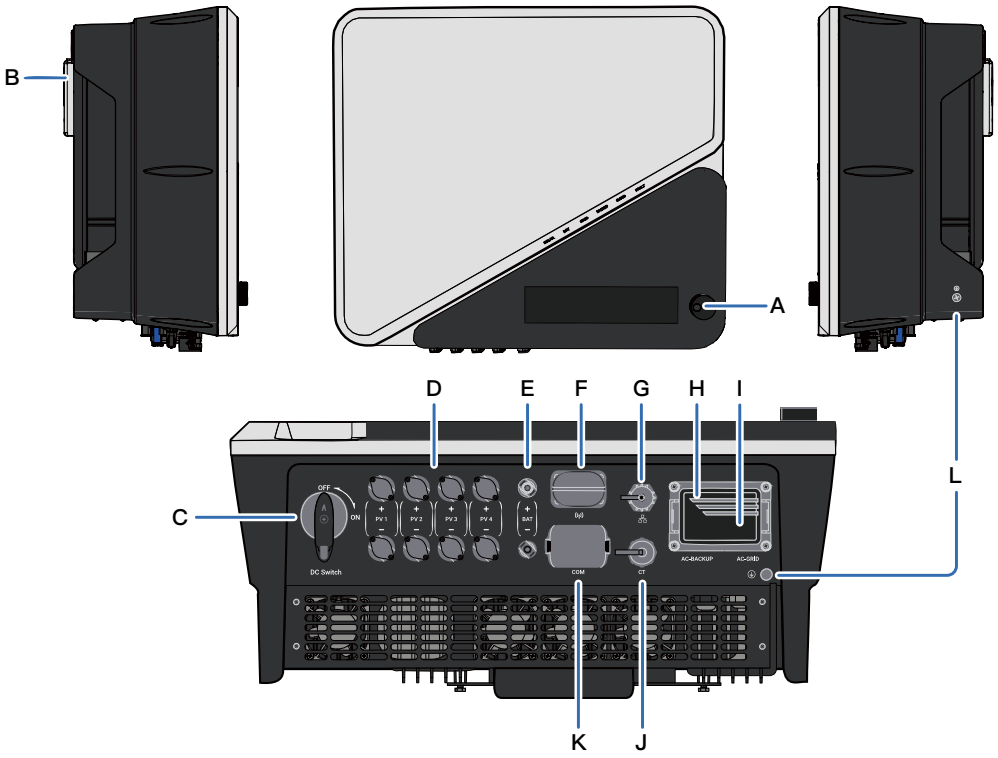
Inappropriate transport or insufficient use of transport securing devices can cause the battery to slip or tip over. The

- Battery can cause injuries if it slips or tips over.
- Transport and lift the battery carefully. Take the weight of the battery into account.
- Position the battery in the vehicle in such a way as to prevent it from slipping.
- Secure the battery against slipping and tipping over with restraining straps, for example.
- Wear suitable personal protective equipment for all work on the battery.

4 Product Overview

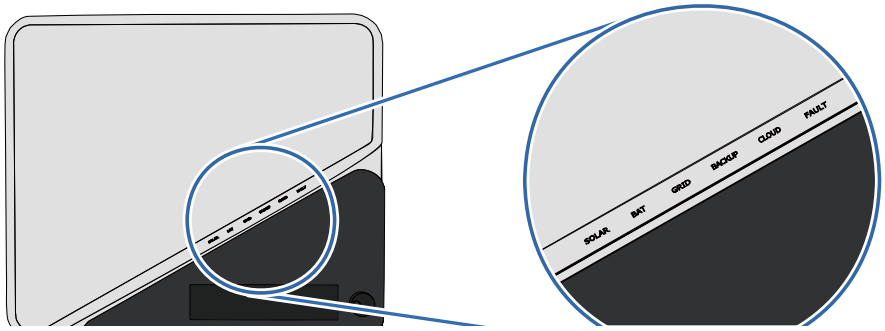
4.1 Hybrid Inverter

4.1.1 Overview



Position	Name	Designation
A	Display and Control Button	Optional component, needs to confirm upon order. The inverter is equipped with an LCD screen that provides real-time system information and basic operation functions.
B	Hanger	Used to hang the inverter on the wall-mounting backsheet.
C	DC Switch	Used to safely disconnect the DC circuit.
D	DC Input Terminal	PV connector: 2 MPPTs for 10/12 kW models, 4 MPPTs for 15/20/25 kW models
E	Battery Input Terminal	Battery connector
F	WiFi Module Connector	Connected with pocket WiFi module
G	LAN Port	Used for connect via LAN
H	Backup Output Terminal	Used for Backup output cable connection
I	On-grid Output Terminal	Used for On-grid output cable connection
J	CT Port	CT Port (optional, needs to confirm upon order)
K	COM Port	Multi-function connector
L	Grounding Point	Connected with the grounding cable

4.1.2 LED Signals



Flicker Definitions

Flicker Type	Frequency	Description
Off	Always off	Indicates disconnection, voltage out of range, system not running, or communication failure
Blinking	1Hz (0.5s on/0.5s off)	Indicates abnormal status or associated warning
Solid On	Always on	Indicates normal operation or the system is running

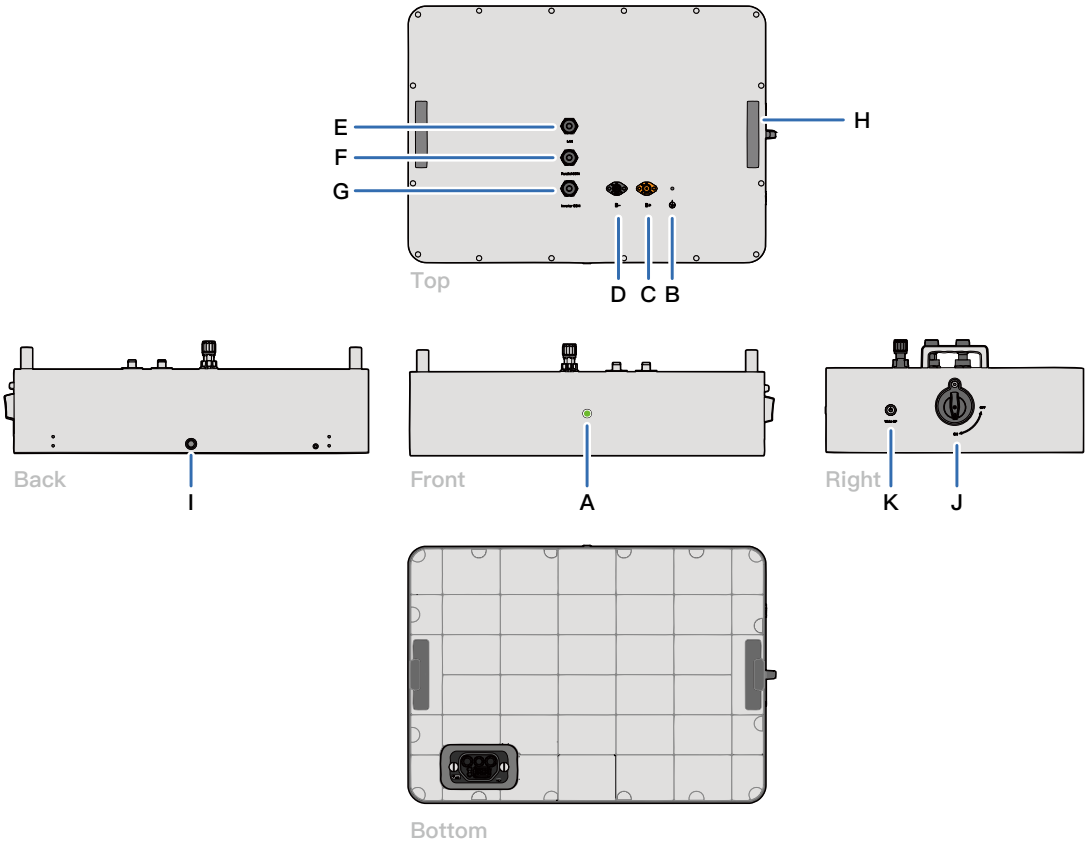
LED Indicator Definitions

Indicator	Off	Blinking	Solid On
Solar	No PV input	PV fault	PV active
Battery	No battery	Battery fault	Battery Charging / Discharging / Idle
Grid	Off-grid	Grid fault	Grid-tied or grid purchase
Backup	Backup not enabled	Backup fault	Backup active
Cloud	Disconnected	/	Connected
Fault	System normal	Warning	Critical fault or setup required

For example, if a battery-side warning is triggered at a specific moment, the following scenarios will occur:

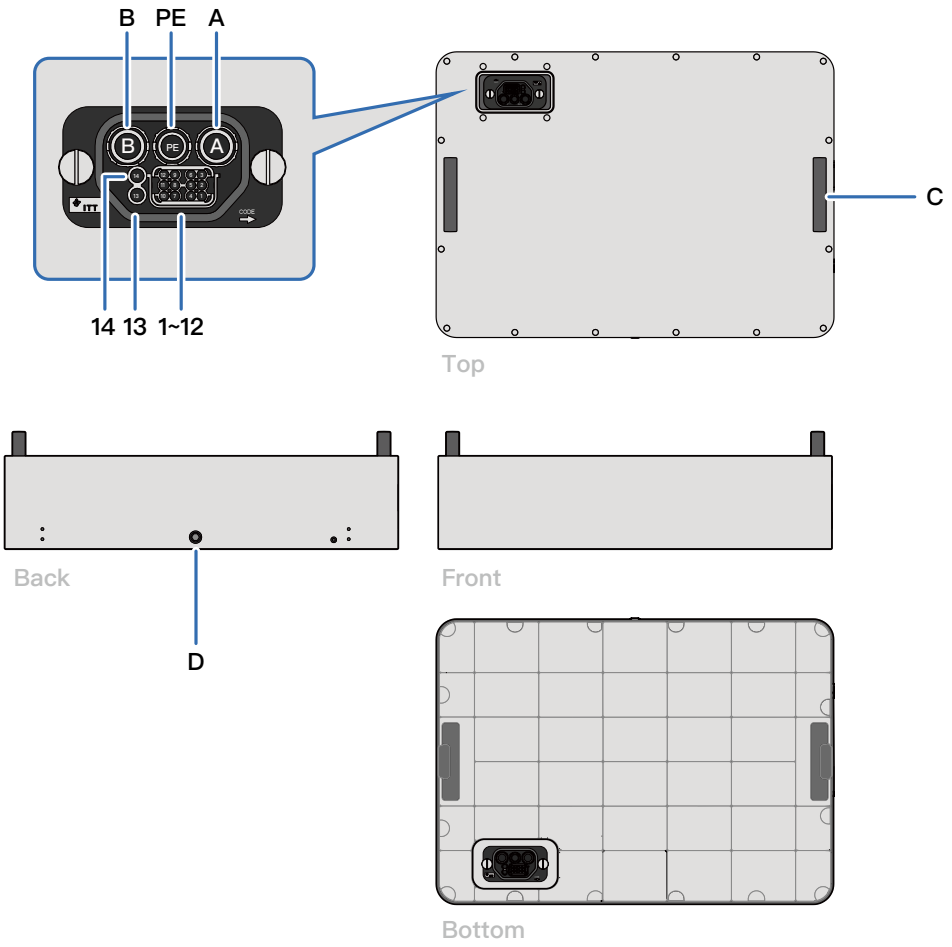
1. The BAT indicator will blink, indicating a fault on the battery side.
2. The FAULT light will blink, indicating a warning-level fault.

4.2 BMS Module



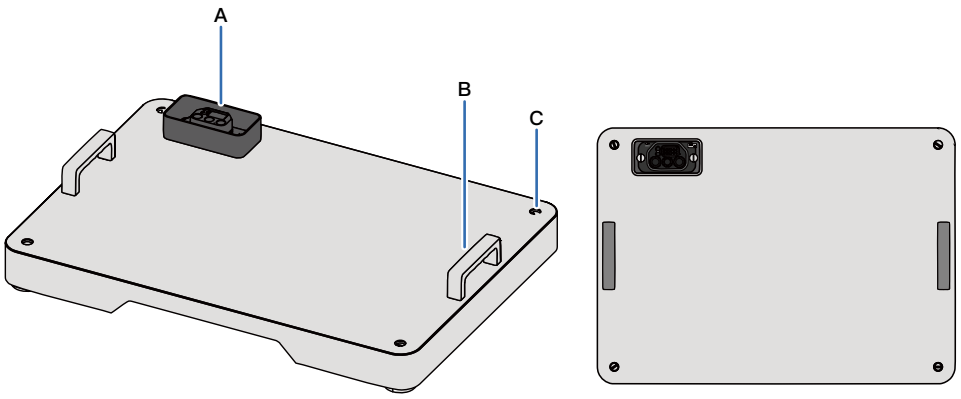
Position	Name	Designation
A	Indicator Light	Display the operation information and working status of the ESS • **Solid Green**: System operating normally • **Flashing Green**: Self–check, firmware upgrade, or parallel auto–addressing in progress • **Solid Red**: Fault detected, intervention required • **Flashing Red & Green Alternately**: Self–check abnormal • **Off**: Not started / No power
B	Grounding Point	Connected with the grounding cable
C	Battery DC Power +	Positive power port
D	Battery DC Power –	Negative power port
E	LAN	RJ45 connection
F	Parallel COM	For communication connection between BMS
G	Inverter COM	For communication connection between inverter and BMS
H	Module Positioner Socket	–
I	Relief Valve	For releasing internal pressure to ensure safe operation of the battery system
J	DC Isolator	DC switch for controlling the entire battery pack
K	Wake Up Button	For starting the BMS

4.3 Battery Module



Position	Name	Designation
A	Port A	Negative electrode of the battery
B	Port B	Positive electrode of the battery
PE	Port PE	Grounding point for safety
1–12	Ports 1—12	1: 24V positive supply 2: 24V negative supply 3: CAN communication 4: CAN communication 5: IO 6—12: Reserved
13	Port 13	48V positive supply
14	Port 14	48V negative supply
C	Module Positioner Socket	–
D	Relief Valve	For releasing internal pressure to ensure safe operation of the battery system

4.4 Base Module

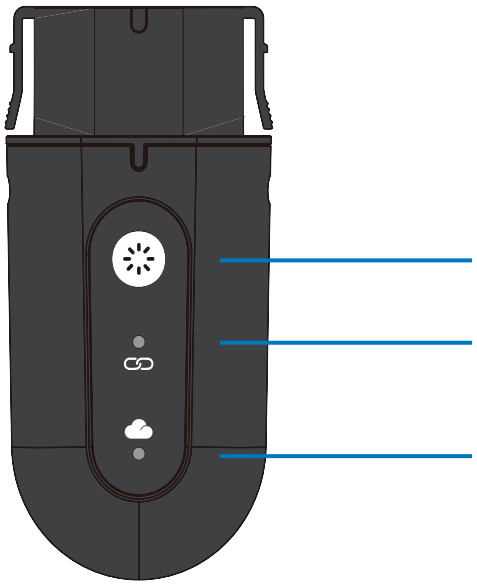


Perspective Top

Position	Name	Designation
A	Terminal Positioner Plug	Connects the battery and secures its position
B	Module Positioner Socket	–
C	Cup Foot Adjustment	Adjusts the four corners to level the base.

4.5 Pocket WiFi

The Pocket WiFi is supplied with the inverter and used for WiFi configuration and enabling network connection for the system.



Reset Button

Indicator 1

Shows the connection status between the WiFi dongle and the inverter.

Indicator 2

Shows the connection status between the WiFi dongle and the WattDesk cloud.

LED Indicator Definitions

Indicator	Off	Steady On	Fast Blink (0.2s on / 0.2s off)
Indicator 1	Not connected	Successfully connected to the inverter (including normal communication)	--
Indicator 2	Not connected	Successfully connected to the WattDesk cloud	1. During network setup 2. WiFi dongle resetting

Button Function

Press and Hold 5—10s
Resets the WiFi dongle. LEDs 1 and 2 will fast blink.
Resets the WiFi dongle and restores factory default settings. Clears any custom WiFi configurations on the inverter and reverts to the default values: **SSID: iHybrid–"last 3 digits of inverter SN"** **Password: 12345678**

⚠ NOTICE

The WiFi module needs to be configured to the router for the first installation. If the router name or password are changed, the WiFi devices will need to be reconfigured.

4.6 Interfaces and Functions

Backup and Off-Grid Output

Normally, the Backup switching time is less than 20ms. However, some external factors may cause the system to fail on switching to Backup mode. Therefore, the conditions for using the Backup function smoothly are as follows for your awareness:

- Do not connect the loads that are dependent on a stable energy supply for a reliable operation.
- Do not connect the loads whose total capacity is greater than the maximum Backup capacity.
- Do not connect the loads that may cause very high start-up current surges, such as non-frequency conversion air conditioning, vacuum cleaner or half-wave loads such as hair dryer, heat gun, hammer drill.
- Due to the condition of the battery itself, battery current might be limited by some factors, including but not limited to the temperature and weather.

MATIC-10.0~25.0KW-50A series hybrid inverter overloading ability in off-grid work mode describes as follows:

Backup Output Current	Maximum Duration	Protection Action
⩽ 1.1 × In	Continuous	Normal operation
> 1.1 × In	10 min	Overload protection after duration
> 1.2 × In	1 min	Overload protection after duration
> 1.3 × In	10 s	Overload protection after duration

After an overload protection event, the inverter will exit the protection state after 1 minute.

If overload protection occurs three times consecutively, the protection release will be delayed, and the inverter will exit the protection state after 1 hour.

Advanced Battery System Features

Automatic Battery Balancing

The battery balancing function is enabled by default.
It automatically balances the SOC between modules within the battery system, ensuring optimized performance, improved consistency, and extended battery life.

Battery Heating Function (Optional)

The battery heating function is designed for regions with low ambient temperatures.
When low temperature conditions are detected, the system may use available surplus energy to warm the battery modules, helping maintain proper operating conditions and improving system performance in cold environments.

The heating function is controlled automatically by the battery management system (BMS).

Both functions are hardware-supported features and must be confirmed when placing the order.

Category	Model	Battery Balancing	Battery Heating Function
BMS	SM-R800N-G4	×	×
	SM-R800H-G4	×	√
	SM-R800N-G4B	√	×
	SM-R800H-G4B	√	√
Battery	R24-3.84N-G4	×	×
	R24-3.84H-G4	×	√
	R24-3.84N-G4B	√	×
	R24-3.84H-G4B	√	√

4.7 Symbols on the Product

Symbols on the Nameplate

Symbol	Explanation
	**CE marking** The product complies with the requirements of the applicable EU directives.
	**Observe the documentation** Observe all documentations supplied with the product
	**WEEE designation** Do not dispose of the product together with the household waste but in accordance with the disposal regulations for electronic waste applicable at the installation site.
	Before working on this equipment: • Isolate the inverter from all power sources. • Verify absence of hazardous voltage between all terminals, including protective earth. • Voltage may be present even after shutdown.
	**Caution, hot surface.** Surface temperature may be high during operation.
	Caution, high voltage. Risk of electric shock.
	Danger to life due to high voltages in the inverter; observe a waiting time of 10 minutes. High voltages that can cause lethal electric shocks are present in the live components of the inverter. Prior to performing any work on the inverter, disconnect it from all voltage sources as described in this document.
	**Recycling** This product and its packaging are recyclable. Dispose of in accordance with local regulations.

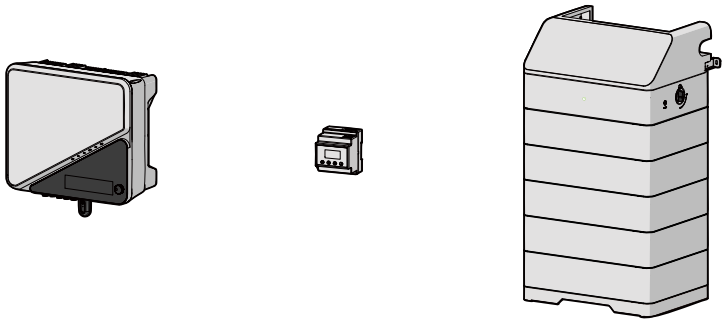
Symbols on the Packing box

Symbol	Explanation
	**Fragile** Handle with care to avoid damage during transportation.
	**Solar** Keep away from sunlight.
	**Stacking Limit** Do not stack more than 5 units to prevent damage.
	**Keep Dry** Protect the product from water and moisture during storage and transport.
	**Upward** Always position the product with the indicated side facing upwards during handling and installation.
	**Lithium Battery (Class 9)** Indicates that the package contains lithium batteries classified as Class 9 dangerous goods. Handle with care. Avoid impact, short circuit, high temperature, and exposure to fire during transportation and installation.

5 Wattsonic Home Energy Solution

5.1 System Components

The Wattsonic Home Energy Solution is formed by the WattMatic Series inverter and battery storage system, providing an integrated solution for residential energy management.
For detailed information about the system architecture and individual components, please visit www.wattsonic.com.

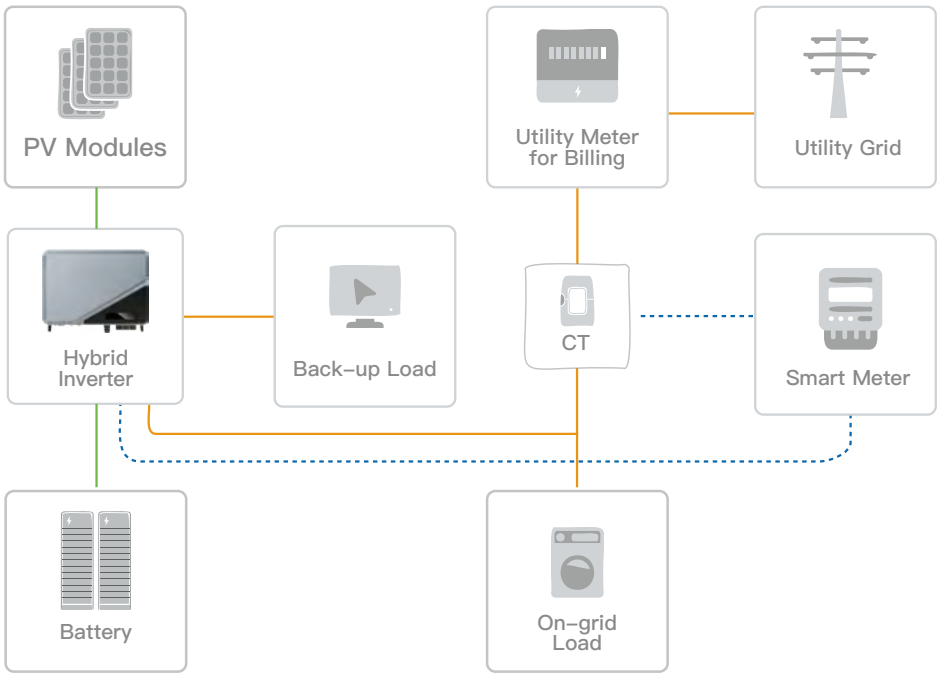


A B C

Position	Name	Designation
A	WattMatic Series Inverter	The WattMatic Series inverter is the core unit of the system, responsible for PV power conversion, battery charging and discharging, and interaction with the utility grid.
B	iMeter Pro	The iMeter Pro measures and records household energy and power data and supports system energy management. Key functions include: • Collecting energy and power data from the PV system, inverter, battery, and loads • Monitoring energy flows for analysis and optimization • Supporting load control and energy management functions • Limiting active power feed-in according to grid requirements • Measuring active power via direct connection Note: Supported functions may vary depending on the meter model and system configuration.
C	Wattsonic Battery Storage System	The battery storage system stores electrical energy generated by the PV system and supplies it when needed, supporting higher self-consumption and efficient energy management.

5.2 System Overview

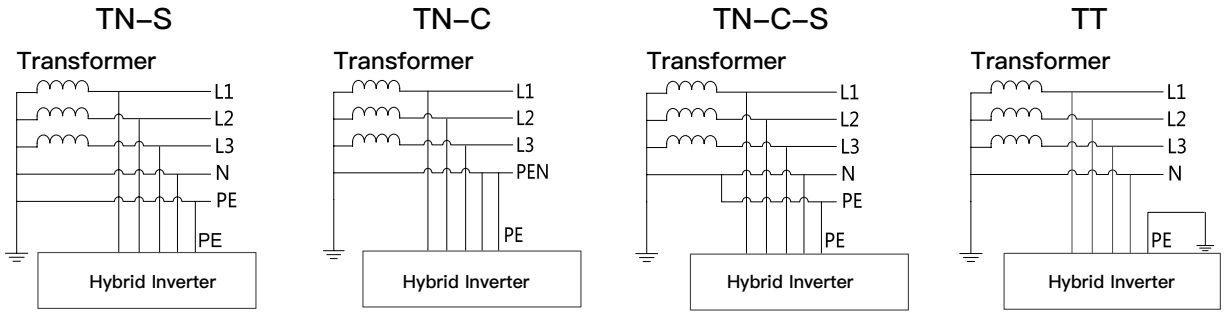
The hybrid solar system is usually composed of the PV array, hybrid inverter, lithium battery, loads and power grid.



NOTICE

The system is not suitable for supplying life-sustaining medical devices. It cannot guarantee backup power in all circumstances.

The applicable grid types for the MATIC-10.0~25.0KW-50A series are TN-S, TN-C, TN-C-S and TT. When applied to the TT grid, the voltage of N to PE should be less than 30V.



6 Mounting

6.1 Requirements for Mounting

6.1.1 Inverter Installation Site Requirements

Basic requirements

⚠ WARNING

Danger to life due to fire or explosion

Despite careful construction, electrical devices can cause fires. This can result in death or serious injury.

- Do not mount the product in areas containing highly flammable materials or gases.
- Do not mount the product in potentially explosive atmospheres.

- **Protection Rating**
  The inverter has an IP66 protection rating and can be installed indoors or outdoors.
- **Temperature Range**
  The inverter is designed to operate in an ambient temperature range of –30°C to +60°C. Ensure the ambient conditions meet the required standards.
- **Support Surface**
  A solid support surface (e.g., concrete or masonry) is required. If installed on drywall or similar materials, the product may emit audible vibrations during operation, which could be perceived as annoying.
- **Flammability**
  The support surface for installation must be made of a non–flammable material.
- **Installation Location**
  The mounting location must be inaccessible to children. Ensure the location is suitable for the weight and dimensions of the product.
- **Exposure to Solar Irradiation**
  The mounting location must not be exposed to direct solar irradiation. If exposed, the exterior plastic parts might age prematurely, and overheating could occur. If the inverter becomes too hot, it will reduce its power output to prevent damage.
- **Ventilation**
  Install the inverter in a well–ventilated area. A sheltered location or an awning is recommended to protect the inverter from environmental elements.
- **Safety**
  During operation, the chassis and heat sink become hot. Avoid contact with easy–to–touch surfaces.
- **Accessibility for Service**
  The mounting location should be freely and safely accessible at all times without requiring any auxiliary equipment such as scaffolding or lifting platforms. Non–fulfillment of this requirement may restrict servicing.
- **DC Load–Break Switch**
  The DC load–break switch must always be freely accessible.

Installation carrier requirements

- The load–bearing capacity of the installation carrier must be at least 4 times the weight of the inverter and match its dimensions.
- Mounting the inverter on resonance–prone surfaces is strictly prohibited.

6.1.2 Battery Module Installation Site Requirements

⚠ WARNING

Danger to life due to fire or explosion

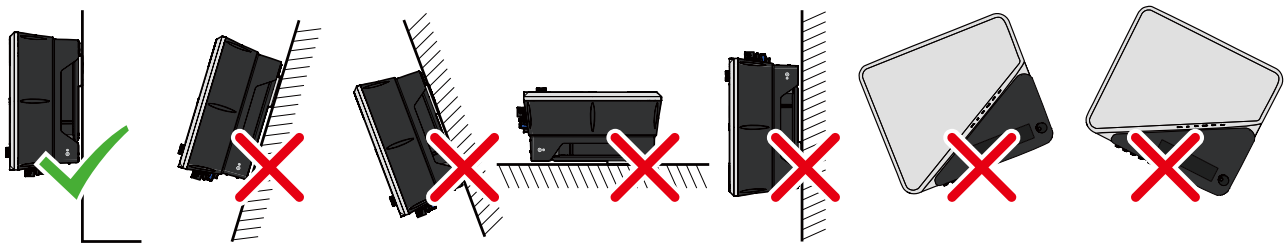
Despite careful construction, electrical devices can cause fires. This can result in death or serious injury.

- Do not mount the product in areas containing highly flammable materials or gases.
- Do not mount the product in potentially explosive atmospheres.

- Must support the weight and dimensions of the product.
- Surface must be dry, horizontal, and flat.
- Avoid direct sunlight to prevent premature aging of plastic parts and overheating; power output may reduce when too hot.
- Keep away from nearby heat sources.
- All ambient conditions must be within specified limits.
- Installation altitude must be below 3000 m; for higher altitudes, contact service.
- On flood plains, site must be elevated and protected from water.

6.1.3 Permitted and Prohibited Mounting Positions

- The product may only be mounted in a permitted position. This will ensure that no moisture can penetrate the product.
- The product should be mounted such that the LED signals can be read off without difficulty.



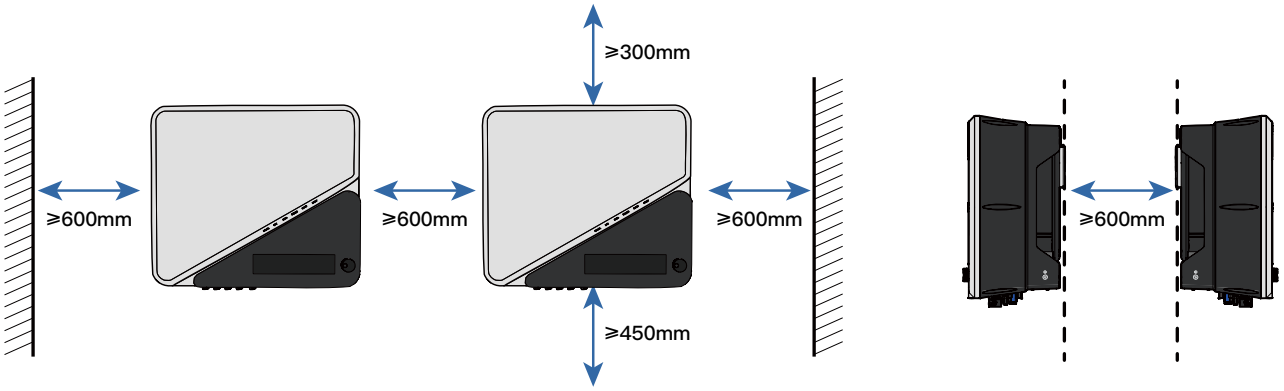
6.1.4 Recommended Clearances

Load-Bearing Capacity:

- The load-bearing capacity of the installation surface must be at least 4 times the weight of the inverter and match its dimensions.
- Mounting the inverter on surfaces that are prone to resonance is strictly prohibited.

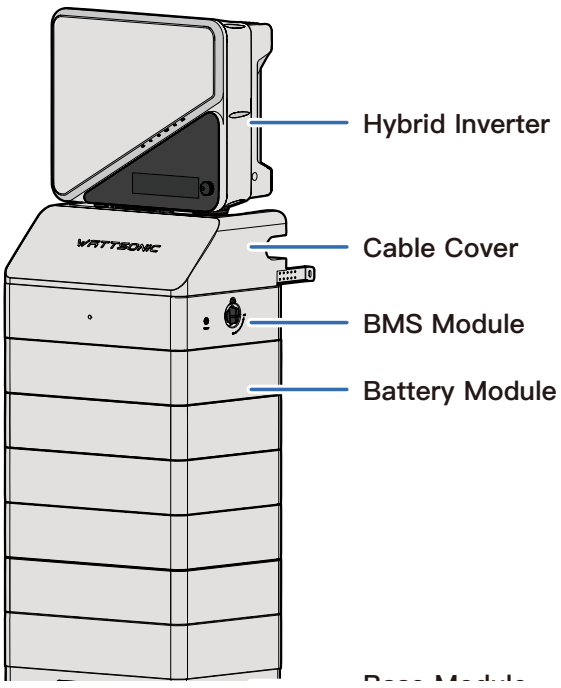
Clearance and Heat Dissipation:

- Maintain the recommended clearances around the inverter to ensure adequate heat dissipation and avoid power reduction due to excessive temperature.
- Ensure there is sufficient space between the inverter and surrounding walls, as well as other batteries, inverters, or objects.

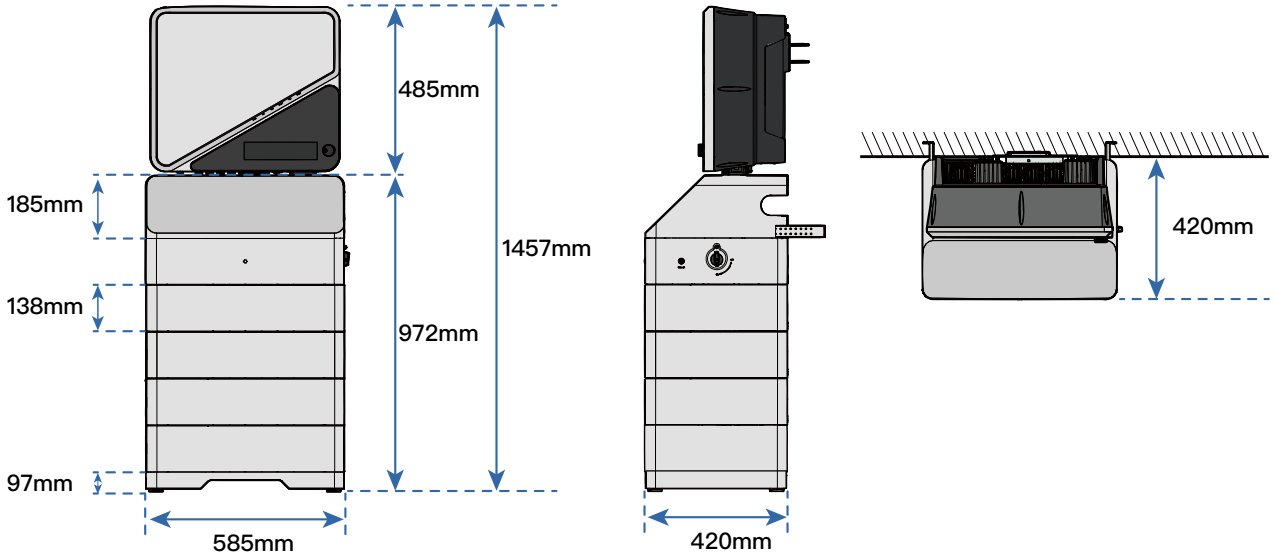


6.2 Product Mounting

6.2.1 System Component



6.2.2 Dimensions for Mounting



6.2.3 Mounting the Product

⚠ CAUTION

Risk of injury due to weight of product

Injuries may result if the product is lifted incorrectly or dropped while being transported or mounted.

- Transport and lift the product carefully. Take the weight of the product into account.
- Always have two persons mount and disassemble the product.
- Wear suitable personal protective equipment for all work on the product.

⚠ DANGER

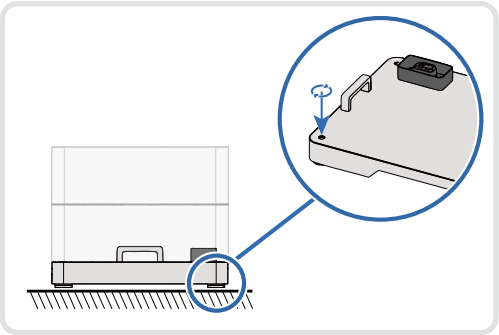
Before punching, make sure to avoid pre-buried water and electricity lines in the wall to avoid danger:

- To prevent dust from entering the human respiratory tract or falling into the eyes during punching, operators should wear protective goggles and dust masks.
- After unscrewing the bolts, elastic pads and flat pads, the upper end face of the expansion pipe must be level with the cement wall and not protrude from the cement wall, otherwise the engineering installation parts will be placed unevenly on the wall.

1. Install the base

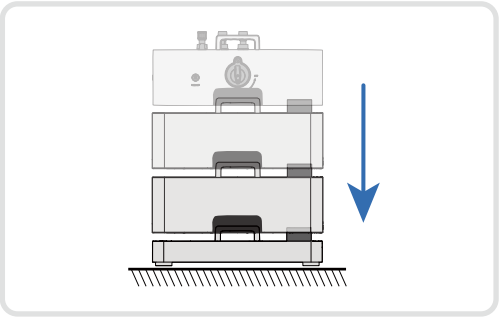
Check the installation environment to ensure ground level.

Place the base on the ground and ensure it is level and stable. The height of the four base feet can be adjusted from the top using a flathead screwdriver to ensure the base module is level.



2. Install the battery module & Sub-Master BMS

Install the remaining batteries and the BMS sequentially.



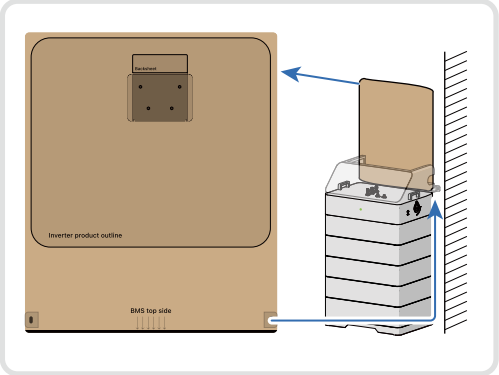
3. Install the inverter

Align the **Backsheet Positioning Card** horizontally with the top of the BMS.

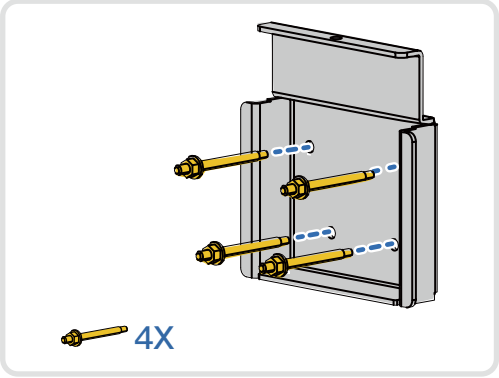
According to the installation diagram, determine the mounting hole positions for both the inverter backsheet and the cable cover wall holes.

Mark the drilling positions on the wall with a marker, ensuring the backsheet remains level.

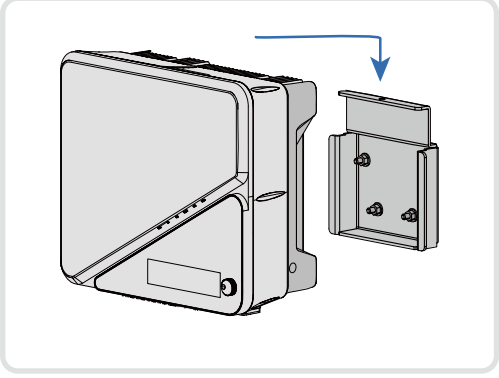
After confirming the positions, drill the holes according to the marked locations.



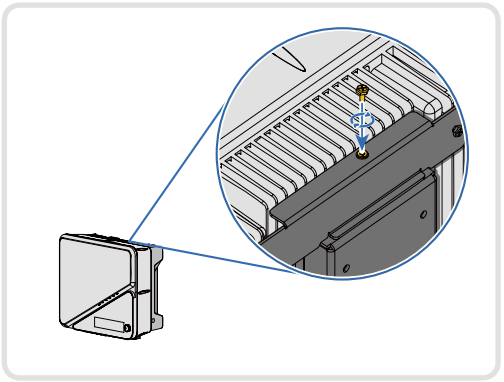
Secure the backsheet to the wall using 4 × **M6×60 expansion bolts**.



Lift the inverter with both hands and carefully hang the back rail onto the backsheet.
Note: Operation should be carried out by more than two people.



Fasten the top **M5×12 screw** after hanging the inverter on the backsheet.

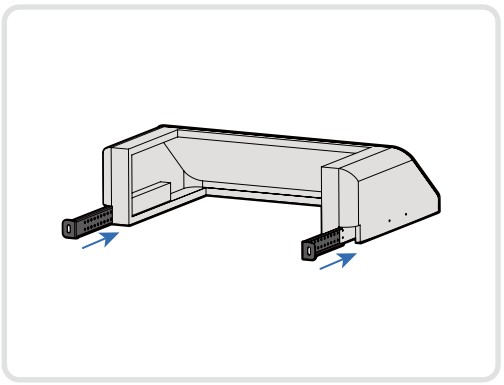


4. Connect the electrical cables

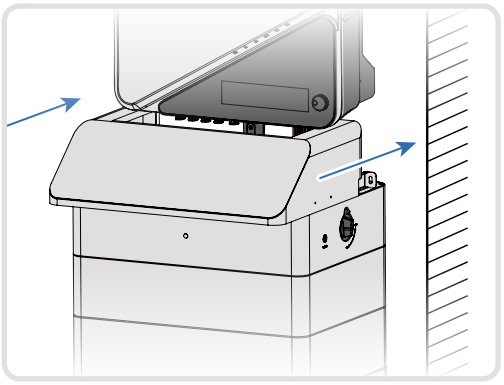
Please refer to Chapter 7 for cable connection guide.

5. Install the cable cover

Attach the two **L–shaped Wall Mounting Bracket** to both sides of the cable cover.

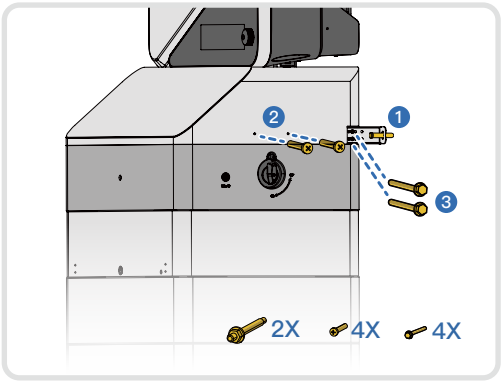


Push the **cable cover** into the top of the BMS unit.



Confirm proper clearance between the AIO unit and the wall, then secure the L–shaped wall mounting bracket and cable cover to the wall using expansion bolts and screws as follows:

1. Confirm proper positions using the **Backsheet Positioning Card**, Secure the **L–shaped wall mounting brackets** to the wall using **M6 Expansion Bolt** (1 per bracket).
2. Attach the cable covers to the BMS unit using **M4 × 10 Combination Screw** (2 per side).
3. Fix the L–shaped wall mounting brackets to the cable covers using **M4 × 16 Screw** (2 per side).



7. Electrical Connection

7.1 Overview

⚠ DANGER

Before performing any electrical connections, ensure all switches connected to the inverter are in the "OFF" position to prevent potential electric shock hazards.

When performing electrical connection operations, the operator must wear personal protective equipment.

A high voltage in the conductive part of the inverter may cause an electric shock. When installing the inverter, make sure that the AC and DC sides of the inverter are completely de–energized.

Do not connect the N–wire as a protective ground wire to the inverter casing. Otherwise, it may cause electric shock.

⚠ WARNING

Do not ground the positive or negative pole of the PV string, otherwise it will cause serious damage to the inverter.

The grounding conductor must not be damaged, and the product must not be operated before the grounding conductor is installed. Otherwise, personal injury or product damage may occur.

Always select measuring equipment with appropriate voltage ranges. Overvoltage may damage the measuring equipment and cause personal injury!

Static may cause damage to the electronic components of the inverter. Anti– static measures should be taken during installation and maintenance.

Incorrect wiring may cause product damage, and such damage will not be covered under warranty.

- Electrical connection operations must be performed by qualified personnel.
- Operators must wear personal protective equipment when performing electrical connection operations.
- Cables selected for the photovoltaic power generation system must have appropriate specifications, secure connections, and good insulation.
- Factors affecting cable selection include: rated current, cable type, installation method, ambient temperature, and maximum expected line losses.

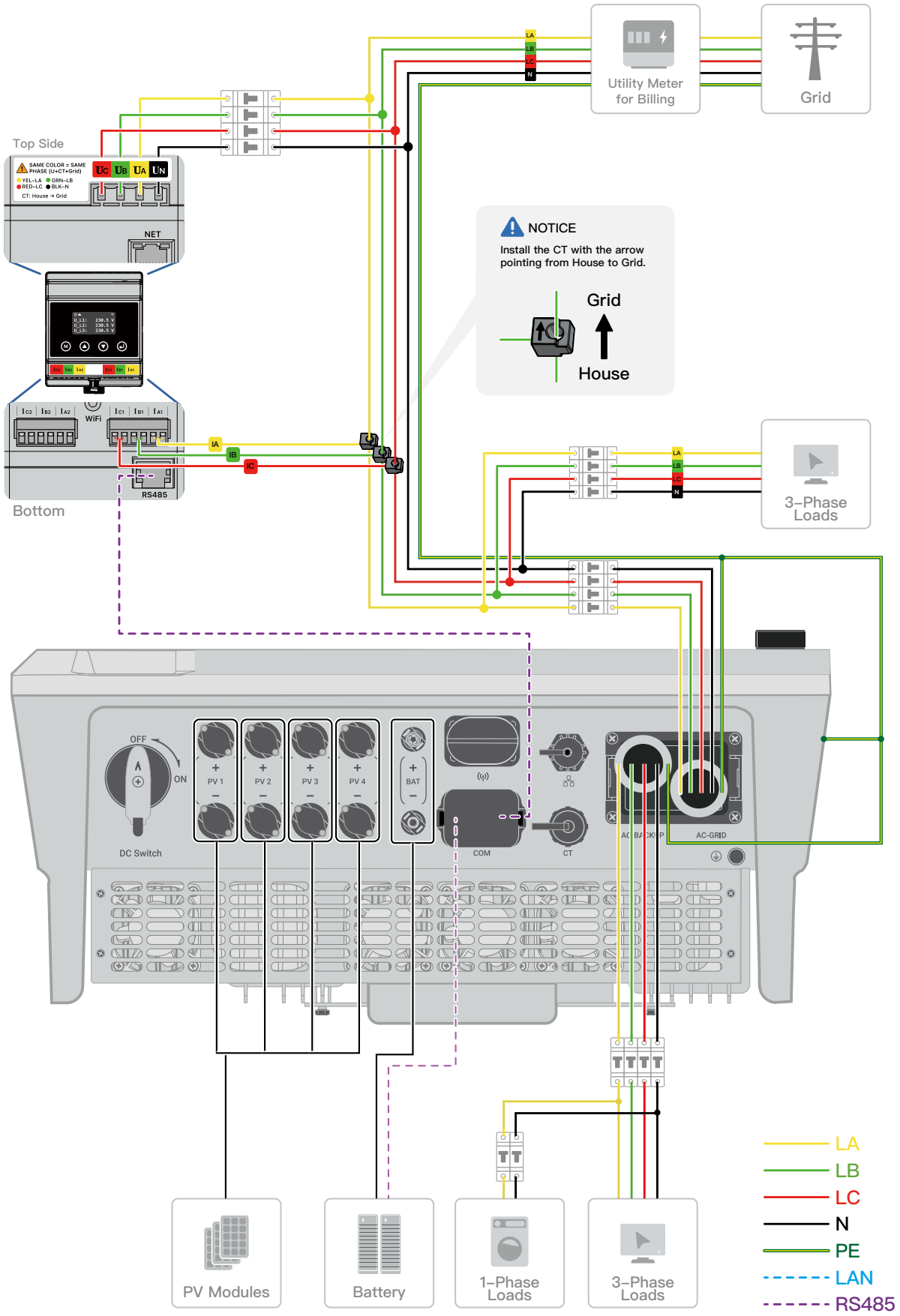
⚠ NOTICE

Moisture and dust can damage the inverter, ensure the cable gland is securely tightened during installation. The warranty claim will be invalidated if the inverter is damaged as a result of a poorly connected cable connector.

All electrical connections must comply with local and national/regional electrical standards.

- The cables selected by users shall meet the requirements of local laws and regulations.
- The inverter may only be connected to the grid after obtaining approval from the local/national power authority.

This diagram shows the wiring structure of the MATIC–10.0~25.0KW–50A series. For actual projects, installation and wiring shall comply with local standards.



7.2 Connecting the Grounding

An additional grounding of the inverter is required to protect from touch current in case the grounding conductor fails at the terminal of the AC cable.

- The inverter must be reliably connected to protective earth (PE).
- The PE terminal in the AC connector is used for the protective grounding of the AC circuit. In addition, the external grounding terminal on the inverter chassis must be connected to the protective earth conductor to ensure equipotential bonding and system safety.

⚠ DANGER

- Make sure the protective ground wire is reliably connected, if it is not connected or loose, it may cause a risk of electric shock.
- It is strictly forbidden to connect the N wire to the chassis as a protective ground wire, otherwise it may cause a risk of electric shock.

⚠ NOTICE

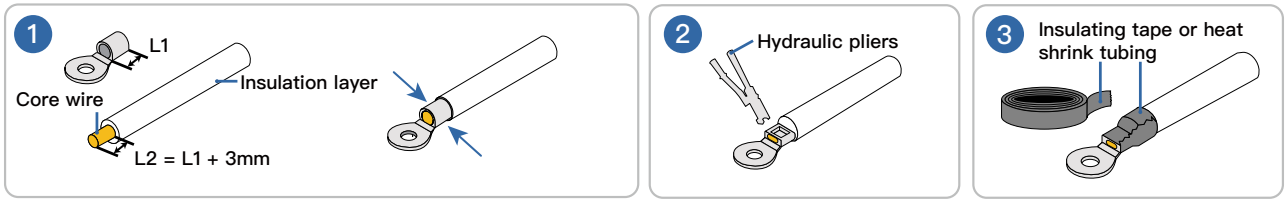
In order to ensure the safe operation of the inverter, please ground the inverter well in strict accordance with the connection requirements of the protective ground wire.

- Referring to the requirements of IEC62109 regulations, in order to be able to safely apply when the inverter ground wire is damaged or disconnected, the protective ground wire of the inverter should be connected and the protective ground wire should be ensured to meet at least one of the following requirements.
- The protective ground wire is a single-core outdoor copper-core cable with a conductor cross-sectional area of ⩾ 16mm^2.
- Using a cable of the same diameter as the AC output line, ground the PE terminal in the AC connector and the grounding screw on the chassis at the same time.
- In some countries, inverters are required to have an additional ground wire. In this case, it is necessary to use a cable of the same diameter as the AC output line, and ground the PE terminal in the AC connector and the grounding screw on the chassis at the same time.

Grounding Procedure

Prepare the Grounding Cable

Strip the insulation from the grounding cable. Attach the ring terminal lug to the stripped wire using the required crimping tool.

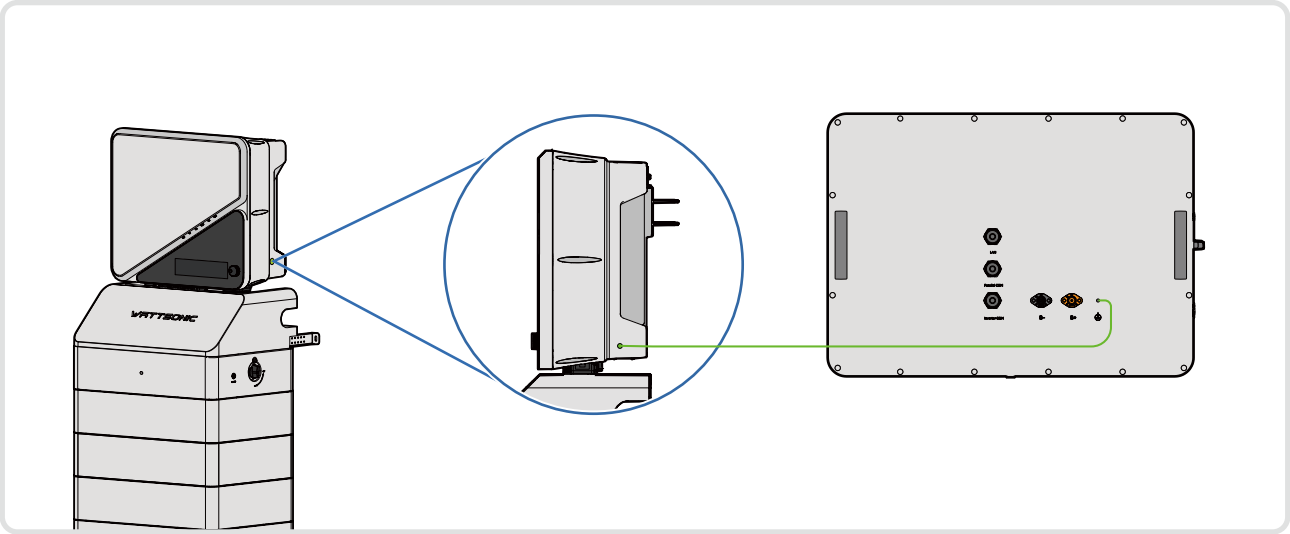


⚠ NOTICE

- When stripping the wire, do not scratch the wire core.
- The cavity formed after crimping the conductor crimping sheet of the OT terminal should completely cover the wire core, and the wire core should be tightly combined with the OT terminal without loosening.
- The crimping line can be covered with heat shrink sleeves or insulating tape. Take heat shrink sleeves as an example.
- During the use of heat guns, please pay attention to protection to prevent burning equipment.

Connect the Grounding cable Between the Inverter and the BMS

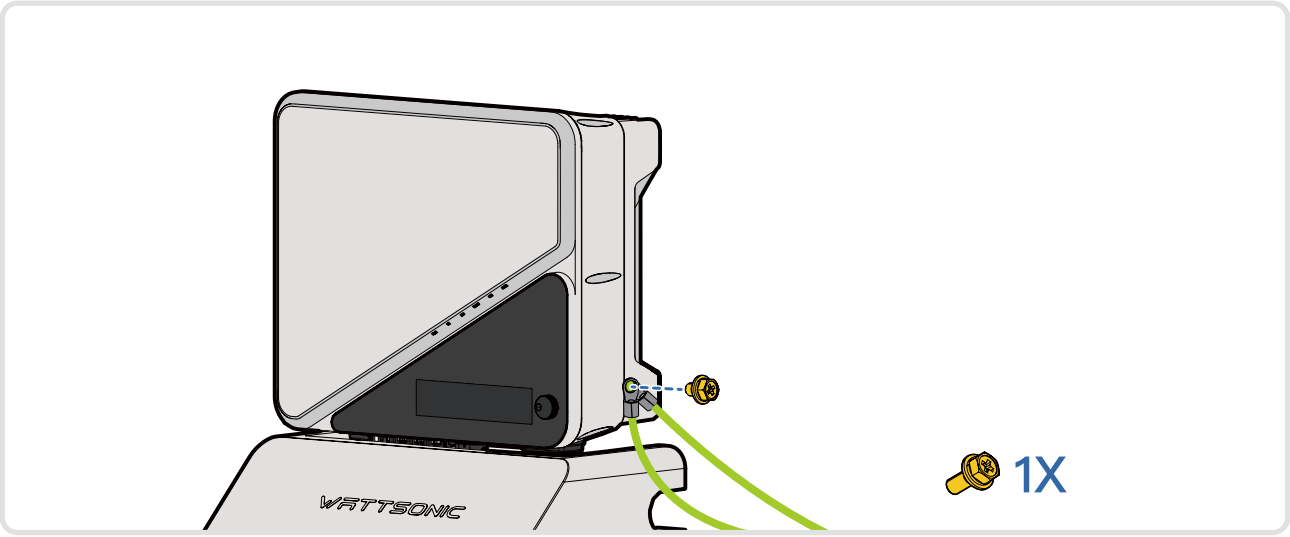
Connect the grounding cable between the grounding points of the inverter and the BMS to ensure equipotential bonding between the devices.
Ensure all grounding connections are secure and properly tightened.



Connect the Inverter to Protective Earth (PE)

The external grounding terminal is located on the right side panel of the inverter.

1. Connect the PE wire to the grounding terminal using appropriate tools.
2. Fix the grounding terminal to the grounding hole on the right side panel of the inverter.
3. Secure the grounding terminal using the supplied **M5×10 Hex Head Combination Screw** with washer and spring washer.
   Tightening torque: 3.5—5 N·m.



7.3 PV String & Battery Cable Connection

⚠ DANGER

- Before connecting the DC input line, make sure to operate in a power-off state and that the "DC switch" of the inverter is set to the "OFF" state. Otherwise, the high voltage generated may cause an electric shock hazard.
- When the inverter is running, it is prohibited to perform maintenance operations on the DC input line, such as accessing or exiting a string or a component in the string. Failure to do so can lead to an electric shock hazard.
- If the DC input terminal of the inverter is not connected to the photovoltaic string, do not remove the waterproof cover of the DC input terminal, otherwise it will affect the protection level of the equipment.

⚠ WARNING

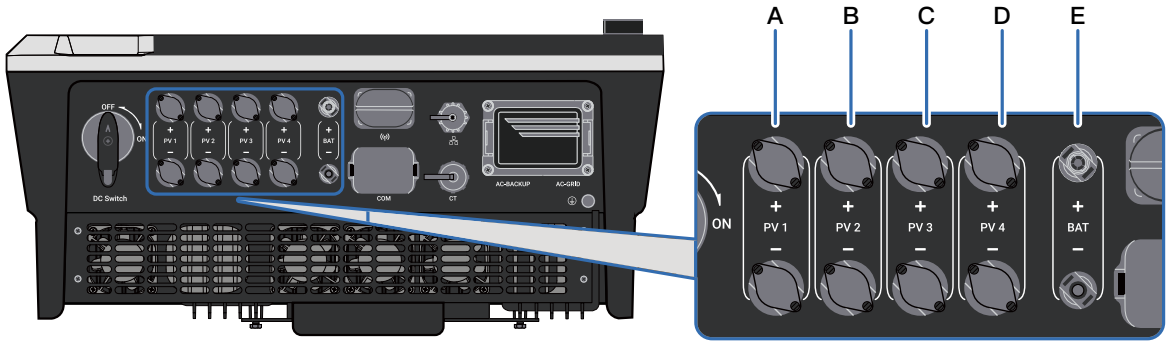
Please make sure that the following conditions are met. Failure to do so may result in damage to the inverter or even a fire hazard.

- The photovoltaic string of each series of photovoltaic modules is of the same specification type.
- The maximum open circuit voltage of each PV string shall not exceed 850V DC under any conditions.
- The maximum short-circuit current of each PV string must not exceed 30 A under any conditions.
- The DC input side polarity is correct, that is, the positive electrode of the photovoltaic string is connected to the positive pole of the DC input terminal of the inverter, and the negative electrode is connected to the negative pole of the DC input terminal of the inverter.
- If the DC input line is accidentally reversed, do not immediately operate the "DC switch" and the positive and negative connectors. It is necessary to wait for the solar irradiance to decrease at night and the current of the photovoltaic string to be reduced to less than 0.5A, then put the "DC switch" in the "OFF" position, remove the positive and negative connectors to correct the polarity of the DC input line. If you are testing the connection to the DC source, you can turn off the DC source and then operate.

⚠ NOTICE

- The PV string output connected to the inverter does not support grounding. Please ensure that the output of the PV module is well insulated to the ground.
- The photovoltaic string connected to the same MPPT needs to use the same model and the same number of photovoltaic panels.

7.3.1 PV and Battery Polarity (Inverter Side)



Position	Designation
A	1st DC input terminal (MPPT 1)
B	2nd DC input terminal (MPPT 2)
C	3rd DC input terminal (MPPT 3*)
D	4th DC input terminal (MPPT 4*)
E	BAT power input and output terminal

* MPPT 3 and MPPT 4 are available only on 15/20/25 kW models.

7.3.2 Assembling the DC Connector

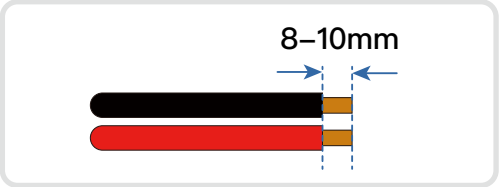
⚠ WARNING

1. Before inserting the DC connectors into the inverter terminals, make sure the DC switch is in the "OFF" position.
2. Ensure the polarity of the battery cables is correct before connection.
3. Use a multimeter to measure the battery voltage and confirm it is within the inverter operating range.

⚠ NOTICE

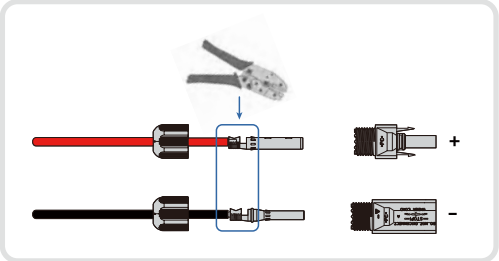
- Do not use rigid cables such as armored cables for DC input wiring to avoid poor terminal contact caused by bending stress.
- Tighten the connector nut with the MC4 wrench to ensure the sealing ring fits tightly around the cable.

1. Strip the DC cable insulation by 8—10 mm.

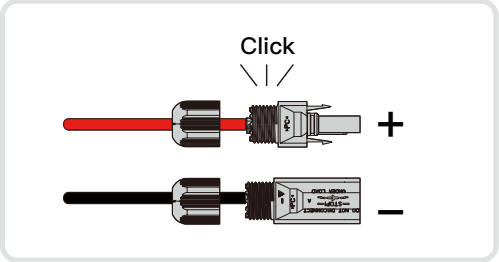


2. Disassemble the connector from the accessory bag and separate all components.

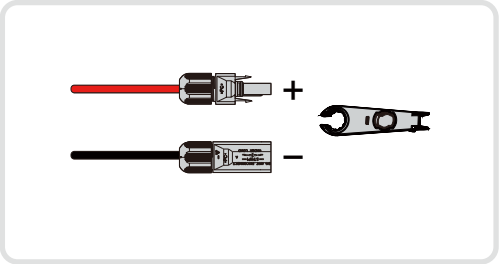
3. Insert the DC cable through the connector nut into the metal terminal and crimp it using a professional crimping tool. Pull the cable gently to ensure the terminal is securely connected.



4. Insert the positive and negative cables into the corresponding MC4 connectors until a “click” sound is heard.



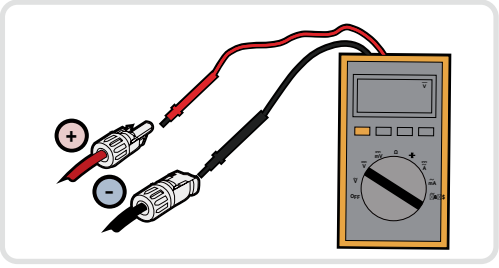
5. Tighten the connector nut using an open–end wrench to ensure proper sealing.



7.3.3 Connecting the PV Cable

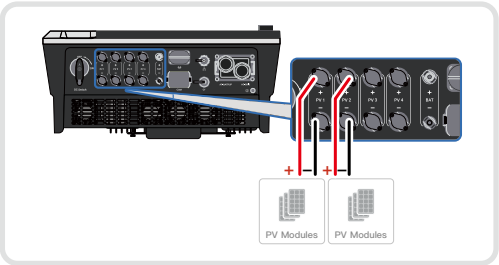
1. Rotate the DC switch to “OFF” position.

2. Check the cable connection of the PV string for polarity correctness and ensure that the open circuit voltage in any case does not exceed the inverter input limit of 850V.



3. Insert the positive and negative connectors into the inverter DC input terminals respectively, a click sound should be heard if the terminals are well connected.

4. Seal the unused PV terminals with the terminal caps.



7.3.4 Connecting the Battery Power Cable

⚠ CAUTION

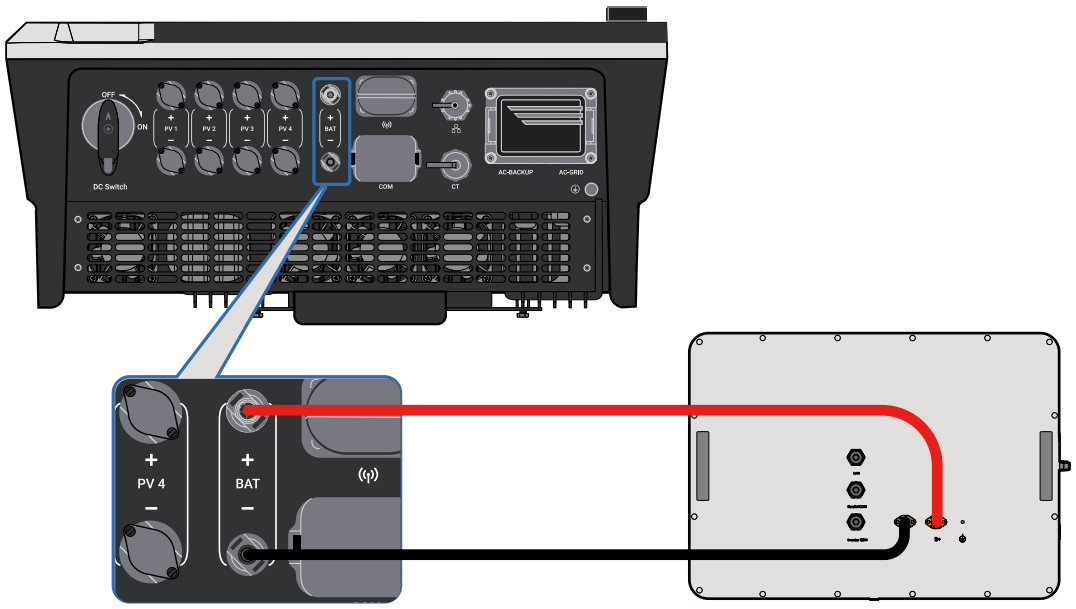
If the conductor core of the battery cable is too small, which may cause poor contact between the terminal and the cable, please use the cable specified in the above table, or contact WattMatic to purchase terminals of other specifications.

⚠ NOTICE

Before purchasing the battery, you need to make sure the battery you selected is in the battery approval list of WattMatic, otherwise, the system may not work properly. Please contact your installer or WattMatic service team for confirmation if you're not sure about it.

The following principles must be considered when making battery connection:

1. Disconnect the AC breaker on the grid side.
2. Disconnect the breaker on the battery side.
3. Turn the inverter DC switch to the "OFF" position.
4. Make sure the maximum input voltage of battery is within the inverter limitation.



7.4 AC Connection

A three-phase AC breaker needs to be installed on the AC side of the inverter. To ensure that the inverter can safely disconnect itself from the power grid when an exception occurs, select a proper overcurrent protection device in compliance with local power distribution regulations and Max. input (output) current of MATIC-10.0~25.0KW-50A AC side.

⚠ DANGER

High voltage may be present in inverter!

Ensure all cables are voltage-free before electrical connection.

Do not connect the AC circuit breaker until all inverter electrical connections are completed.

⚠ WARNING

It is forbidden to access the load between the inverter and the AC switch directly connected to the inverter.

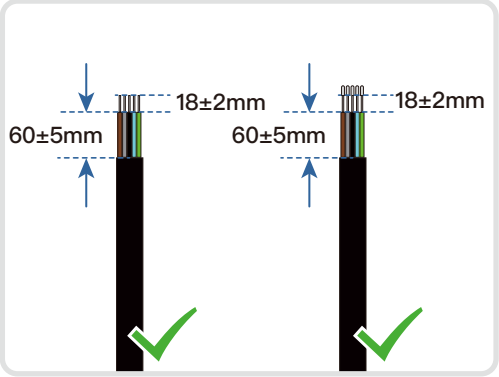
⚠ NOTICE

- If the external AC switch has leakage protection, it is required to have a rated leakage current of ⩾ 30mA.
- If multiple inverters are connected to the total leakage current protection device through their respective external AC switches, the rated leakage current of the total leakage current protection device is required ⩾ the number of inverters × 30mA.
- The use of knife switch is prohibited for AC switches.
- Determine whether an AC circuit breaker with greater overcurrent capacity is required based on actual conditions.

Step 1: Prepare the AC Cables

Strip the insulation from the AC cables.
Crimp the appropriate blade terminals onto the conductors:

- C45-10 for **load lines**
- C45-16 for **grid lines**



⚠ NOTICE

- The cable protection layer is located inside the connector.
- The wire core is completely entered into the junction hole without leakage.
- The AC output wire must be connected and fastened, otherwise the equipment may not operate normally, or the AC connector may be damaged after operation.
- Pay attention to the direction of the cable to ensure that there is no twisting of the cable.
- The cable color is only for illustration and not as a correspondence to the line sequence.

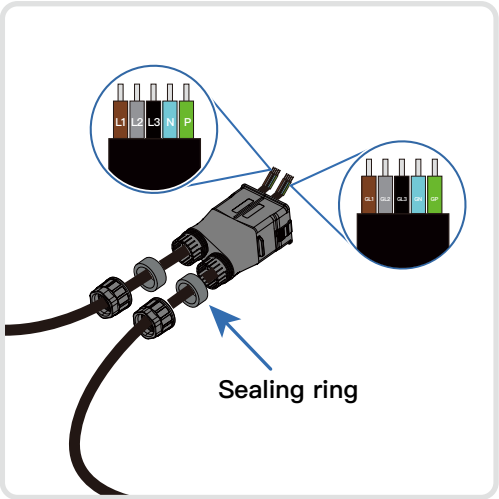
Step 2: Route the Cables

Pass the five-core cables through the waterproof cover.

- **Load side**: L1, L2, L3, N, PE
- **Grid side**: GL1, GL2, GL3, GN, GP

To ensure proper sealing and waterproof performance, refer to the following table to select the appropriate connector sealing ring according to the outer diameter of the cable.

Sealing Ring Color	Applicable Cable Diameter (mm)
Black	14.0—19.0
Blue	19.0—23.5
Red	23.5—27.5



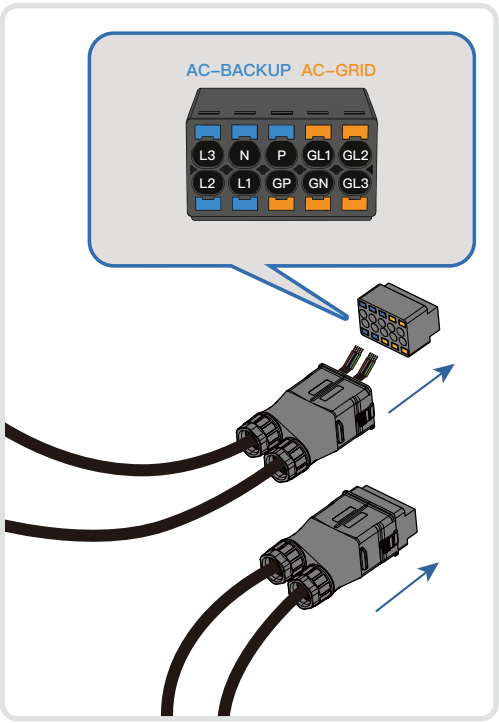
Step 3: Connect the Terminals

Secure the crimped copper pin terminals to the corresponding positions on the 10P connector plug according to the silk-screen markings.

Insert the 10P plug into the waterproof housing.
Tighten the plastic nut to secure the assembly (installation torque: 5 N·m).

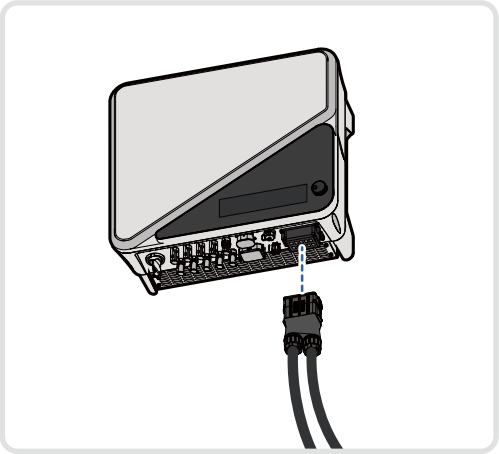
⚠ WARNING

The cord end terminals must be locked tightly, and make sure it won't be loose after a long period of use.



Step 4: Connect to the Inverter

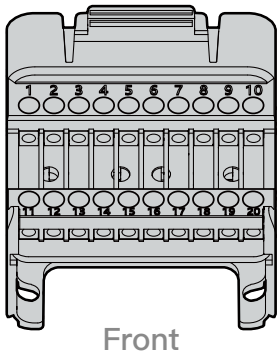
Plug the assembled 10P connector into the corresponding 10P socket on the inverter panel.



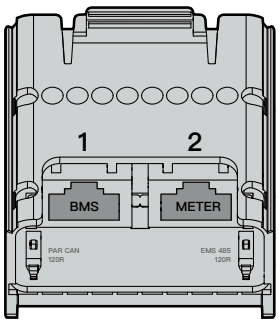
7.5 Communication Connection

7.5.1 COM Connector Terminal Assignment

The inverter is equipped with a multifunction communication port at the bottom, which provides CAN, RS485, RLYOUT, and DRED/RCR interfaces for communication and control.



Front



Back

Front

No.	Definition	Function
1	COM–1	
2	NO–1 (Normally Open)	
7	DRM 1/5	DRED(for Australia and New Zealand) or RCR(for Germany)
8	DRM 2/6	
9	DRM 3/7	
10	DRM 4/8	
11	PE	Protective earth
12	PE	

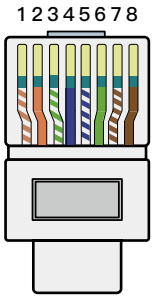
No.	Definition	Function
13	485 B1	
14	485 A1	
15	COM–2	
16	NO–2	
17	COM D/0	
18	REF D/0	
19	CANL	
20	CANH	

Back

No.	Definition	Function
1	BMS	Connected with BMS module
2	METER	Connected with smart meter

RJ45 terminal connection sequence and definition as below:

No	Color	BMS	Meter
1	Orange & White	24V+	NC
2	Orange	24V+	NC
3	Green & White	24V–	485 B0
4	Blue	CAN_H	NC
5	Blue & White	CAN_L	NC
6	Green	24V–	485 A0
7	Brown & White	NC	485 B0
8	Brown	NC	485 A0

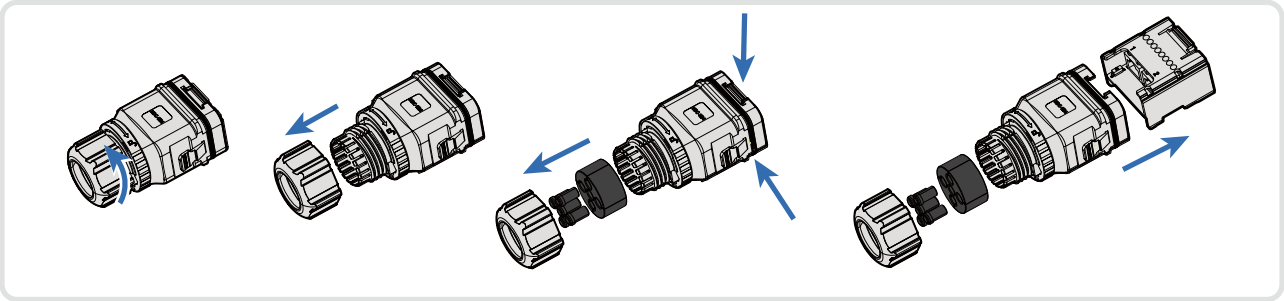


7.5.2 Connecting the COM Connector

The COM connector is used for communication interfaces such as BMS, smart meter, DRM, and external control signals. The COM connector supports two wiring methods:

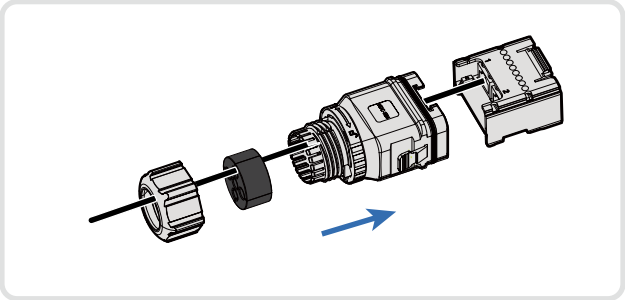
- RJ45 communication cable
- Multi-core communication cable via terminal block

A. Disassembling the Connector

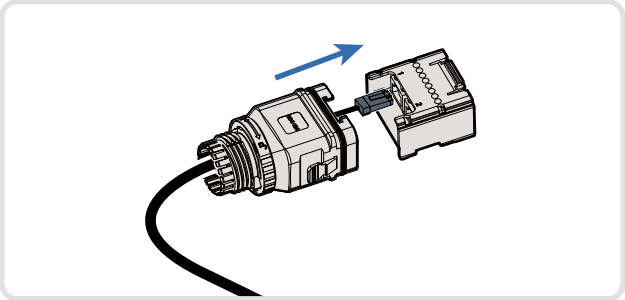


Unscrew the swivel nut, remove the sealing ring, and take out the terminal block from the connector housing.

B. Connecting RJ45 Communication Cable

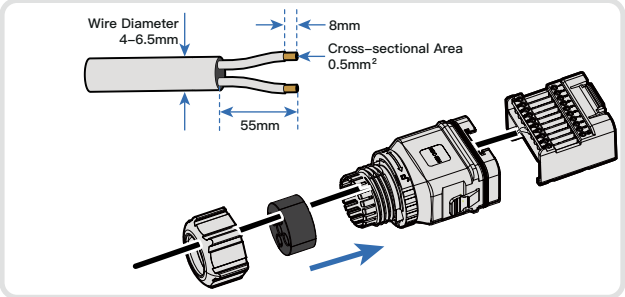


1. Pass the communication cable (RJ45 cable or multi-core cable) through the swivel nut and insert it into the open side of the rubber gasket.

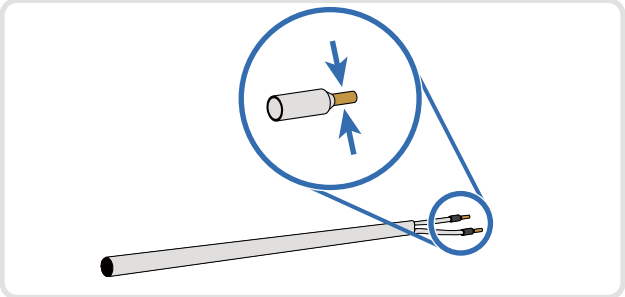


2. Insert one end of the RJ45 cable into the RJ45 port of the terminal block.

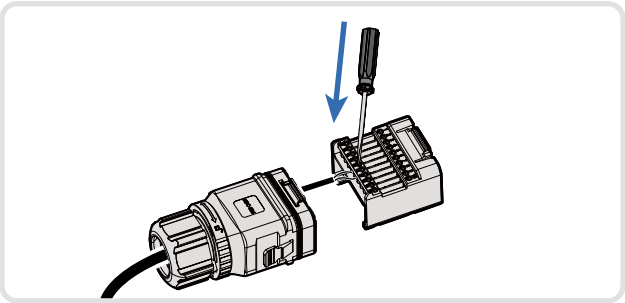
C. Connecting Multi-core Communication Cable



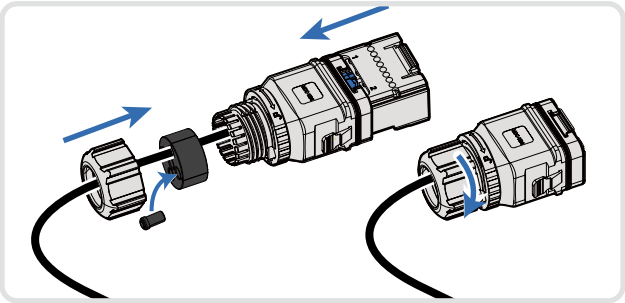
1. Route the cable through the swivel nut and housing, then strip the outer jacket and conductor insulation as required.



2. (Optional) For multi-strand conductors, crimp ferrules (cord end terminals) onto the wire ends.



3. Wire the conductors to the terminal block according to COM Connector Terminal Assignment, and tighten the screws to 1.2 ± 0.1 N·m.



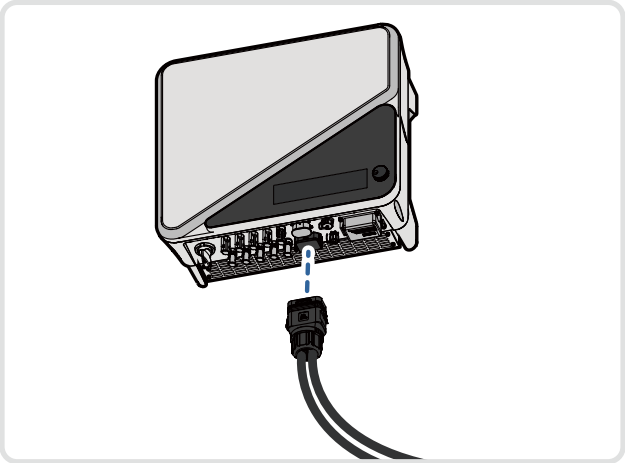
4. Perform a pull check, reinstall the terminal block until it clicks, then tighten the swivel nut.
Unused holes must be sealed with plugs.

⚠ NOTICE

- Ensure the wiring sequence follows the COM Connector Terminal Assignment.
- Make sure the sealing ring is correctly installed to maintain the connector's sealing performance.
- After installation, confirm the connector is securely locked.

D. Installing the Connector to the Inverter

1. Remove the waterproof lid from the COM terminal.
2. Insert the COM connector into COM terminal on the bottom of the inverter until there is an audible click.

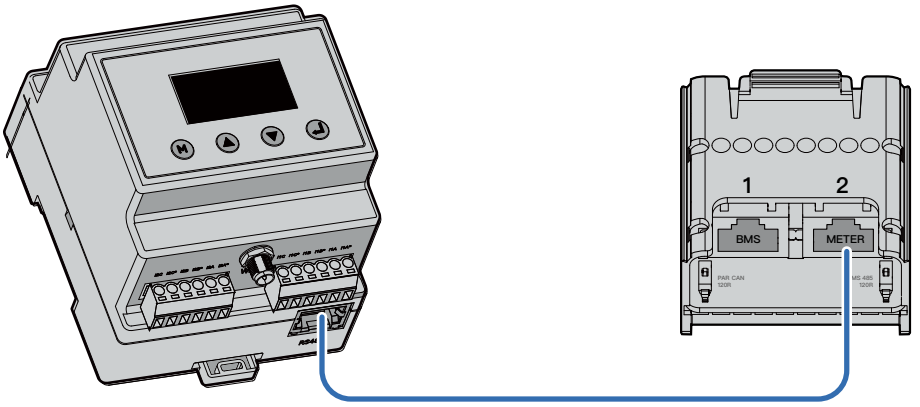


7.5.3 Meter Communication

The inverter communicates with the smart meter via RS485 communication.

Use the supplied **10 m "RJ45 Cable for Meter"** (included in the inverter accessories box) to connect the smart meter to the inverter.

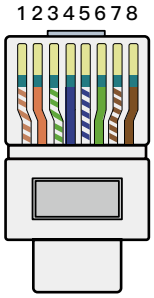
The wiring diagram is shown below.



iMeter Pro **COM Connector**

RJ45 terminal of Meter connection sequence and definition as below:

No	Color	Meter
1	Orange & White	NC
2	Orange	NC
3	Green & White	485 B0
4	Blue	NC
5	Blue & White	NC
6	Green	485 A0
7	Brown & White	485 B0
8	Brown	485 A0

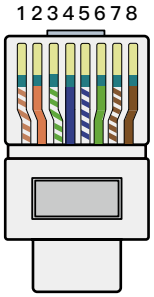


7.5.4 Battery Communication Connection

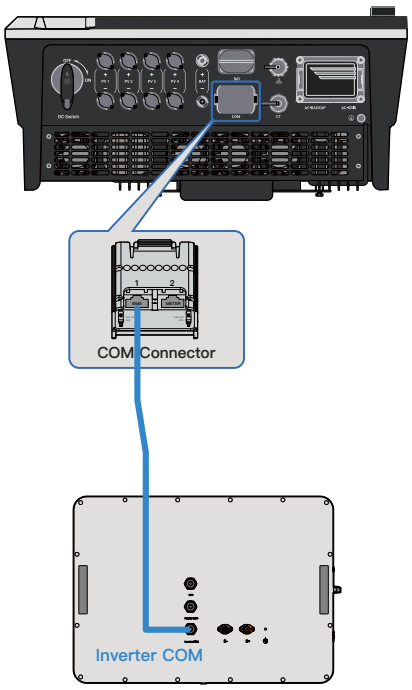
The inverter communicates with the battery BMS via CAN communication.

1. Use the supplied **3 m "RJ45 Cable for BMS"** (included in the inverter accessories box) to connect between the inverter and BMS: plug into the "**Inverter COM**" port on the BMS and the **"BMS"** RJ45 port on the inverter's multifunction communication interface.

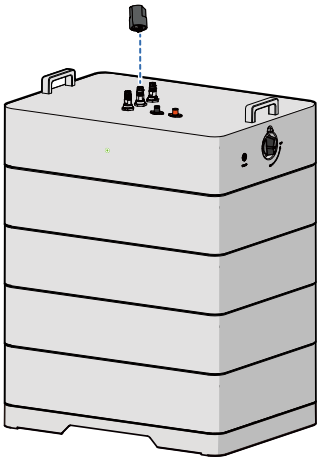
RJ45 terminal of BMS sequence and definition as below:



No	Color	Meter
1	Orange & White	24V+
2	Orange	24V+
3	Green & White	24V–
4	Blue	CAN_H
5	Blue & White	CAN_L
6	Green	24V–
7	Brown & White	NC
8	Brown	NC



2. Insert the **Termination Resistor** into the "**Parallel COM**" port on the top of the BMS.



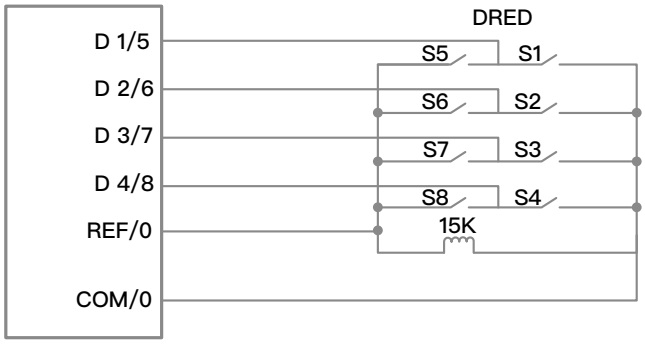
7.5.5 DRED/RCR

DRM and Ripple Control support only one function at the same time.

DRED

DRED (Demand Response Enabling Device) interface is special reserved for Australia and New Zealand according to their safety regulation, and Wattsonic doesn't provide the DRED device for the customer. The inverter supports the demand response modes as specified in the standard AS/NZS 4777. The inverter has integrated a terminal block for connecting to a DRED.

DRED wiring diagram (hybrid inverter) as below:



DRED mode as shown in table below:

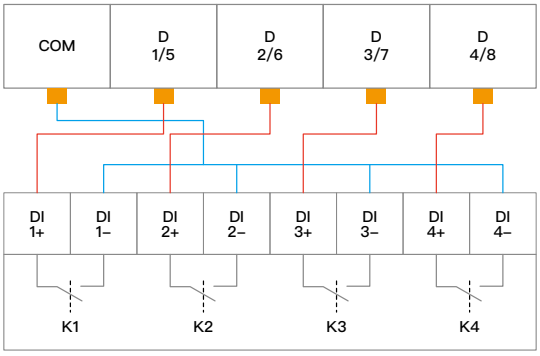
Mode	Function
DRM 0	Operate the disconnection device
DRM 1	Do not consume power
DRM 2	Do not consume at more than 50% of rated power
DRM 3	Do not consume at more than 75% of rated power and source reactive power if capable
DRM 4	Increase power consumption (subject to constraints from other active DRMs)
DRM 5	Do not generate power
DRM 6	Do not generate at more than 50% of rated power
DRM 7	Do not generate at more than 75% of rated power and sink reactive power if capable
DRM 8	Increase power generation (subject to constraints from other active DRMs)
Priority	DRM1>DRM2>DRM3>DRM4 DRM5>DRM6>DRM7>DRM8

RCR

RCR (Ripple Control Receiver) interface is special reserved for Germany and some other European countries according to their safety regulation, and Wattsonic doesn't provide the RCR device for the customer.

In Germany and some European areas, a ripple control receiver is used to convert a power grid dispatching signal to a dry contact signal. The dry contact is required for receiving the power grid dispatching signal.

RCR wiring diagram (hybrid inverter) as below:



Ripple Control Receiver

RCR operation mode as shown in table below:

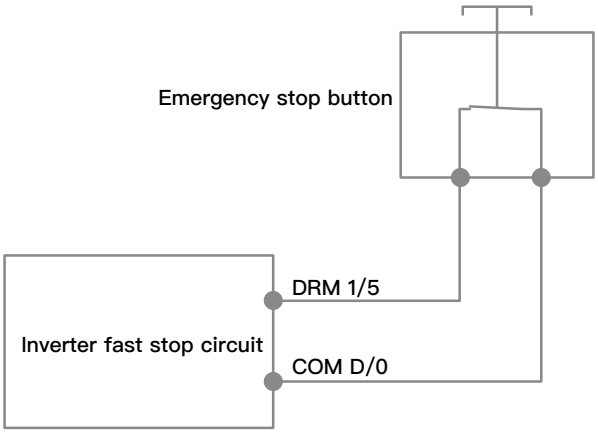
Switch mode (External RCR device)	Feed-in output power (in % of the Rated AC output power)
K1 turn on	100%
K2 turn on	60%
K3 turn on	30%
K4 turn on	0%
RCR priority: K1<K2<K3<K4	

7.5.6 Fast stop

The MATIC—10~25KW—50A hybrid inverter supports a fast stop function.
An external emergency stop switch can be connected to the fast stop interface if required. The external switch is not included in the accessory box.

The fast stop input uses **DRM 1/5 and COM D/0** terminals on the 24-pin COM connector.

The input is **normally closed (NC)**. When the circuit between **DRM 1/5 and COM D/0** is opened, the inverter will trigger a fast stop.



7.6 Meter and CT Connection

This section describes two grid-side power sampling methods supported by the inverter.

7.6.1 Sampling Method Selection

The inverter supports two sampling methods for grid-side power detection:

1. **Meter + CT Connection**
   The CTs are connected to the external meter, and the meter communicates with the inverter to provide sampling data.
2. **Direct CT Connection**
   The CT cable harness is connected directly to the CT port at the bottom of the inverter. Three CTs are installed on the L1/L2/L3 conductors for direct sampling.

Both methods can be used for **load following, export limitation**, and related power control functions.

Compared with the meter solution, the **Direct CT Connection** provides faster response and is suitable for applications with higher response requirements.

⚠ NOTICE

- Only one sampling method shall be used at a time.

7.6.2 Meter + CT Connection

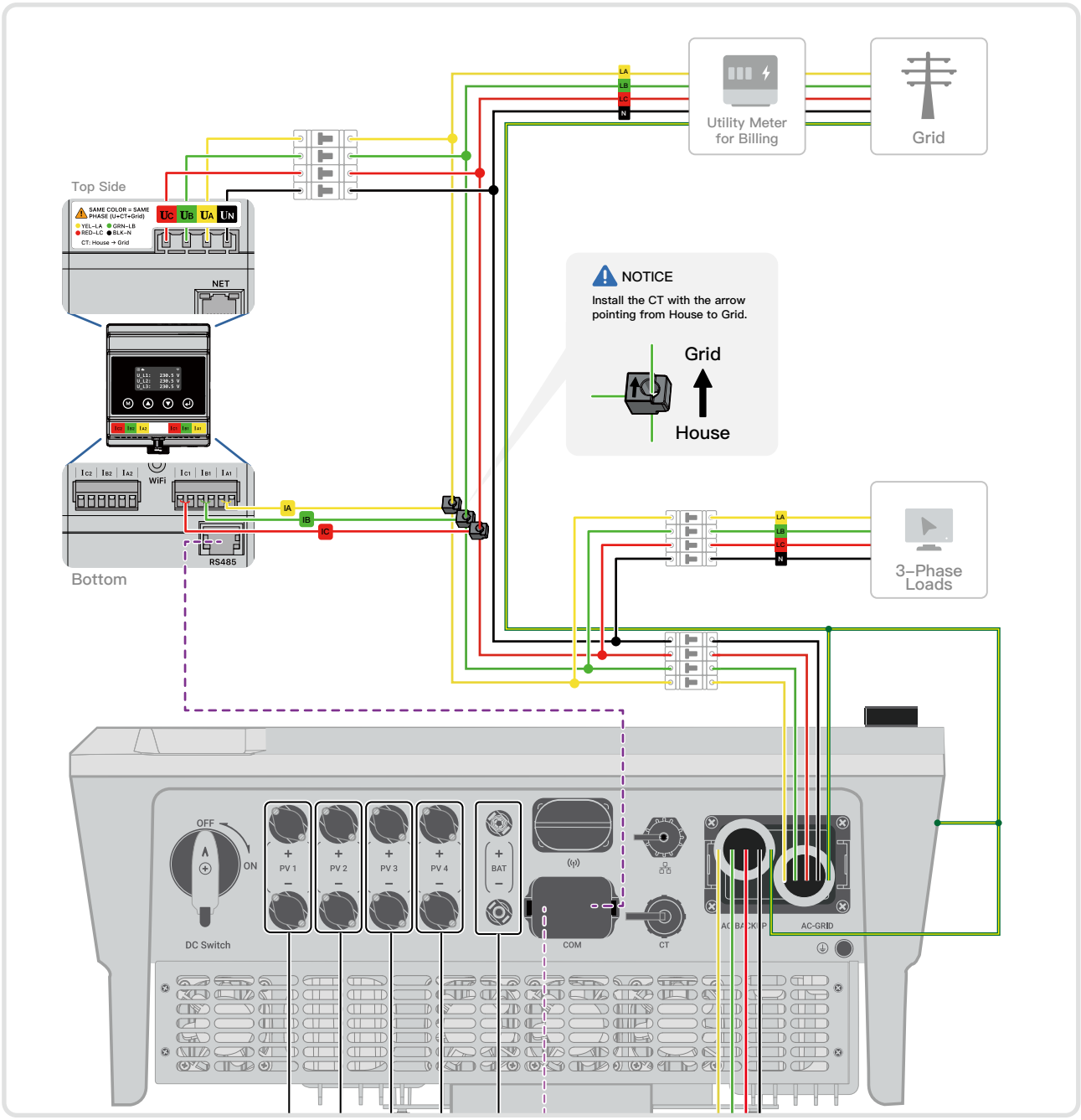
For the **Meter + CT connection**, connect the meter voltage sampling wires to **UA / UB / UC / UN**, with phase **A / B / C** and neutral corresponding to **UA / UB / UC / UN** respectively.

Install one CT on each phase conductor between the **house loads** and the **grid**. Connect the CT wires to the corresponding meter terminals according to the phase sequence:

- Phase A CT: **IA1 / IA2**
- Phase B CT: **IB1 / IB2**
- Phase C CT: **IC1 / IC2**

Keep the voltage wire phase sequence consistent with the CT phase sequence. The CT installation direction must follow the wiring diagram. Generally, the CT arrow shall point toward the **grid side**.

The meter communicates with the inverter through **RS485** and sends the detected voltage, current and power direction data to the inverter for load following, export limitation and related power control functions.



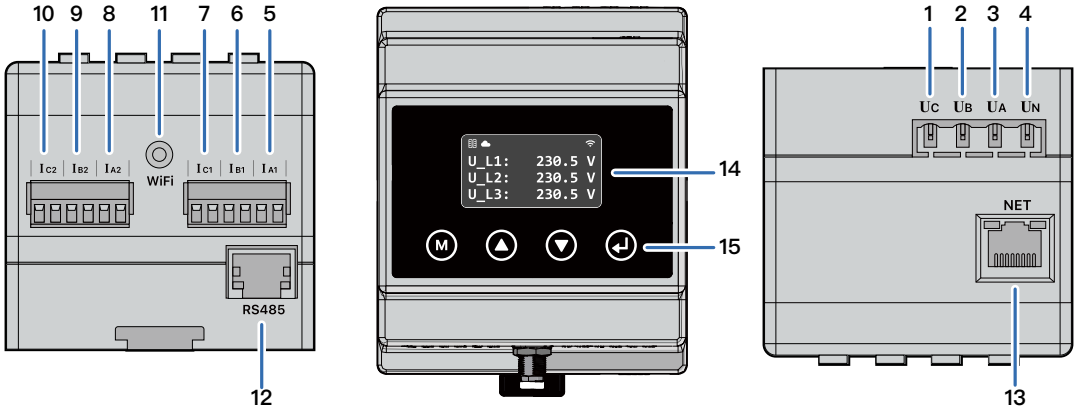
⚠ WARNING

- The installation direction and phase sequence of the CT should strictly follow the instructions in the user manual, otherwise the inverter may not work properly.
- The CT must correspond to the port in the meter, and the connection between the CT and the meter needs to be reliable, otherwise it may affect the measurement accuracy of the CT.

⚠ NOTICE

- Current transformers are usually installed on L-shaped wires between residential loads and the grid.
- The meter requires installation in an AC box or other place out of reach of children. CT cables with a length of 2 meters are fixed and cannot be extended.
- When you receive the CT, follow the wiring diagram to connect the CT.

The appearance and terminal definition of the meter are shown below. Before wiring, identify the voltage sampling terminals, CT terminals, and communication ports according to the following figure and table.



Bottom Front Top

No.	Definition	Function	Availability
1	UC	UC/UB/UA/UN connect to grid to detect power grid voltage	All models
2	UB		
3	UA		
4	UN		
5	IA1	To detect the first CT current and direction	All models
6	IB1		
7	IC1		
8	IA2	To detect the second CT current and direction	CTd models only
9	IB2		
10	IC2		
11	WiFi	WiFi antenna port	iMeter Pro only
12	RS485	Communicate with inverter	All models
13	NET	LAN communication port	iMeter Pro only
14	Display	Displays measurement data, status information, and setting menus	All models
15	Operation Buttons	Used for page switching, menu navigation, and parameter setting	All models

Note:
WiFi and NET are only available on iMeter Pro models.
IA2 / IB2 / IC2 are only available on CTd models.

7.6.3 Direct CT Connection

For applications requiring faster power response, the inverter supports **Direct CT Connection**.

In this method, the direct CT cable harness is connected to the **CT port at the bottom of the inverter**. The other end of the harness includes three CTs, which shall be installed on **phase A / B / C** conductors respectively.

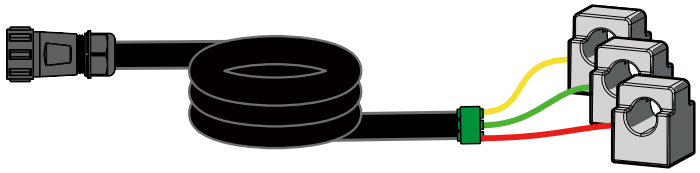
The direct CTs detect the grid-side current and current direction. The inverter uses the detected data for **load following, export limitation**, and related power control functions.

Compared with the meter solution, the direct CT connection provides faster response and can support **millisecond-level power response** under supported system configurations.

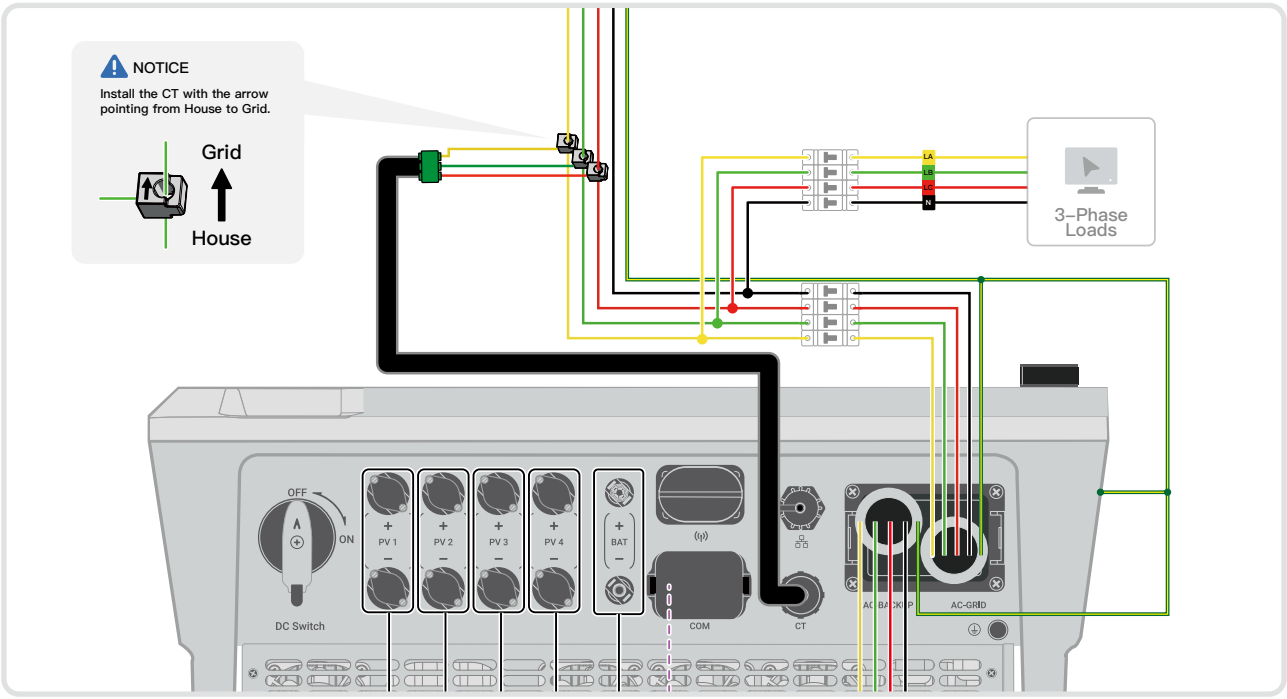
NOTICE

- The direct CTs detect current and current direction only. Grid voltage is detected by the inverter through the AC-GRID connection.
- The direct CT cable harness is an optional accessory and shall be confirmed according to the order configuration.

The direct CT cable harness is shown below. One end of the harness connects to the CT port of the inverter, and the other end includes three CTs for phase A / B / C current detection.



Refer to the following diagram for the direct CT connection. Install one CT on each phase conductor and make sure the CT phase sequence and arrow direction follow the wiring diagram.



When installing the direct CTs, make sure the CTs are installed on the correct phase conductors. Do not install the CTs on the neutral wire or PE wire.

The CT arrow direction shall be consistent with the wiring diagram. Incorrect CT direction or phase sequence may affect power detection, load following, or export limitation performance.

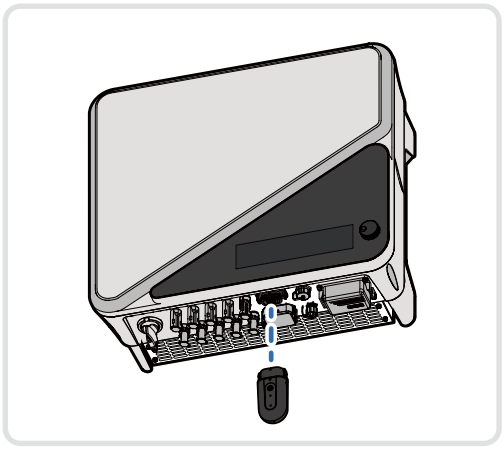
8 Network Connection

8.1 Inverter Network Connection

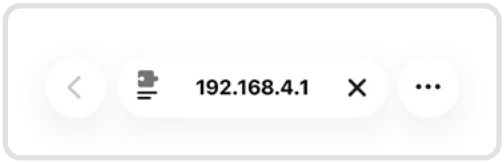
8.1.1 Pocket WiFi Connection

Plug the **Pocket WiFi** into the USB port in the bottom of inverter. A slight "click" sound during the installation represents that the assembly is in place.

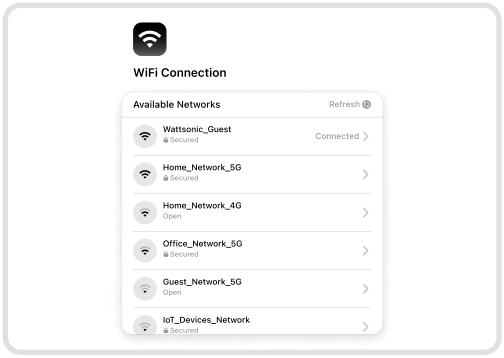
After powering on the device, follow the steps below to set up the WiFi connection.



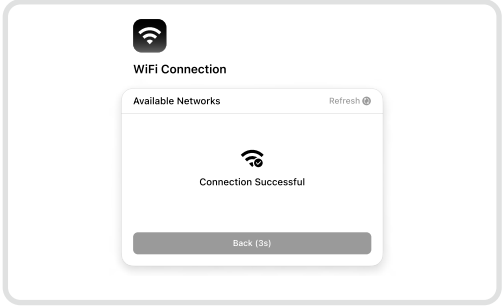
1. Prepare a laptop or smartphone and turn on the WLAN connection.
2. Use your device to connect to the local WiFi. The default SSID and password are:
   SSID: iHybrid–"last 3 digits of inverter SN"
   Password: 12345678
3. After connecting to the local hotspot, your device will automatically open the setup page.
   If it does not, you can either scan the QR code on the product label or enter 192.168.4.1 directly in your browser.



4. Select the desired network in the WLAN network tab.
5. Enter WLAN password, and click on "**Connect**".



If the green LED of "**CLOUD**" on the front panel lights up permanently, the connection to the network was successful.



⚠ NOTICE

1. If the desired WLAN network is not listed, click the refersh button on the top of the WLAN list window.
2. WattMatic series currently does not support 5G channel WLAN connection, please connect to WLAN without 5G logo.
3. Please remember to switch the WLAN network of your device back to your corresponding home offices WLAN to get a normal network connection after the inverter has connected to the cloud successffully.

8.1.2 Network Cable Connection

⚠ DANGER

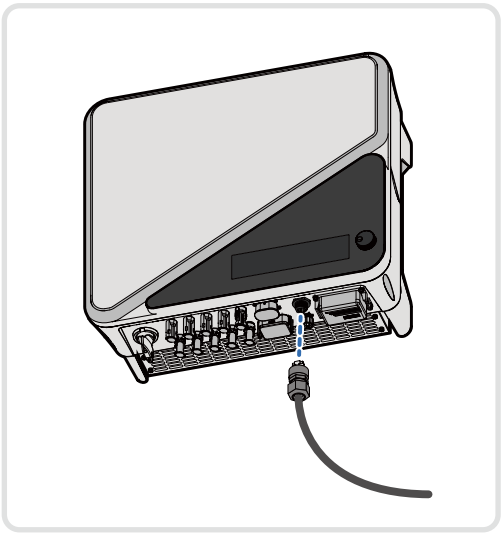
Risk of Electric Shock Due to Overvoltage

Overvoltages (for example, caused by lightning strikes) may be transmitted into the building and to other connected devices via network cables or other data cables if adequate surge protection is not installed. Contact with live parts or cables may result in serious injury or death due to electric shock.

- Ensure that all devices connected to the same network, including the inverter and battery system, are properly integrated into an effective surge protection system.
- When routing network cables or other data cables outdoors, install suitable surge protection at the point where the cable enters the building.
- Use network and communication interfaces only in accordance with the specified installation requirements and applicable electrical safety standards.

A wired network connection is not mandatory.
If the wireless connection is unstable or unavailable, a wired Ethernet connection can be used instead.

Connect a network cable to the **Ethernet port** of the inverter. Ensure that DHCP is enabled (enabled by default). Once connected, the inverter will automatically obtain an IP address and connect to the network.



8.2 BMS Network Connection

8.2.1 WiFi Connection

1. Prepare a laptop or smartphone and turn on the WLAN connection.
2. Use your device to connect to the local WiFi. The default SSID and password are:
   SSID: "BMS SN"
   Password: 12345678
3. After connecting to the local hotspot, your device will automatically open the setup page.
   If it does not, you can either scan the QR code on the product label or enter 192.168.4.1 directly in your browser.



4. Select the desired network in the WLAN network tab.
5. Enter WLAN password, and click on "**Connect**".



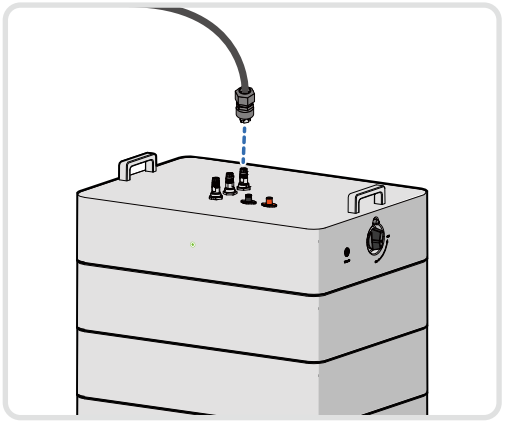
NOTICE

1. If the desired WLAN network is not listed, click the refersh button on the top of the WLAN list window.
2. WattMatic series currently does not support 5G channel WLAN connection, please connect to WLAN without 5G logo.
3. Please remember to switch the WLAN network of your device back to your corresponding home offices WLAN to get a normal network connection after the inverter has connected to the cloud successffully.

8.2.2 Network Cable Connection

A wired network connection is not mandatory.
If the wireless connection is unstable or unavailable, a wired Ethernet connection can be used instead.

Connect a network cable to the **LAN port** of the BMS. Once connected, the BMS will automatically obtain an IP address and connect to the network.



NOTICE

For multi-cluster systems, only one BMS needs to be connected to LAN. Other BMS units do not require separate LAN connections or repeated network configuration.

9 Commissioning

9.1 Inspection Before Commissioning

Check the following items before starting the inverter:

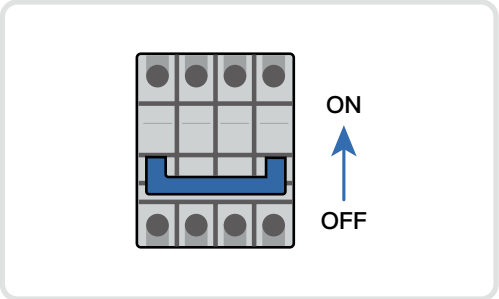
1. All equipment has been reliably installed.
2. DC switch and AC circuit breaker are in the "OFF" position.
3. The grounding cable is properly and reliably connected.
4. The AC cable is properly and reliably connected.
5. The DC cable is properly and reliably connected.
6. The communication cable is properly and reliably connected.
7. The vacant terminals are sealed.
8. No foreign items, such as tools, are left on the top of the machine or in the junction box (if there is).
9. The AC circuit breaker is selected in accordance with the requirements of this manual and local standards.
10. All warning signs & labels are intact and legible.

9.2 Powering On the System

If all of the items mentioned above meet the requirements, proceed as follows to start up the inverter for the first time.

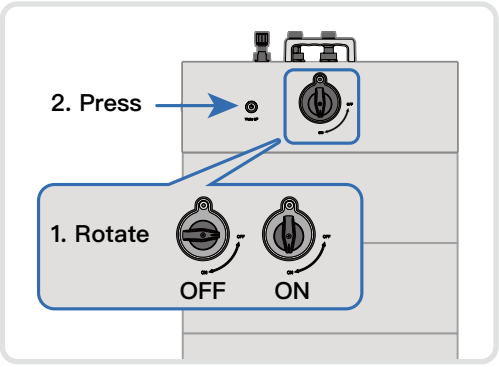
Step 1. Switch on the grid-side AC circuit breaker.

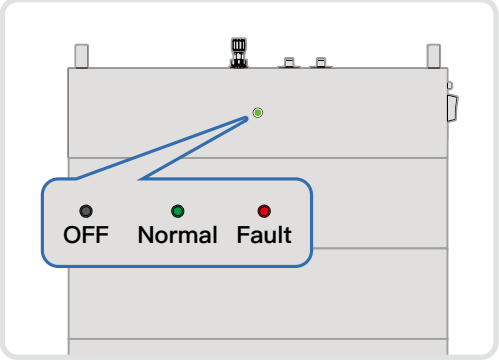
Switch on the AC circuit breaker on the grid side that supplies power to the inverter.



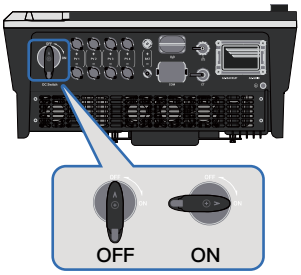
Step 2. Start the Battery System

1. Turn on the **DC switch** on the BMS.
2. Wait at least 5 seconds, then press the **Wake UP button**. The front indicator will turn solid green if the BMS starts successfully.





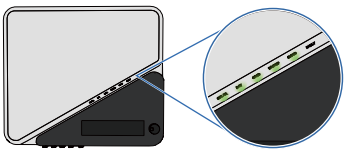
Step 3. Switch on the all DC switch between the inverter and the PV string.
This includes the DC switches integrated in the inverter (**DC Switch**), as well as any external DC switches installed on the PV side.



Step 4. Inverter Start-up

After both the AC and DC breakers are turned on, the inverter will begin operation provided that the grid conditions and weather conditions are within the required range.

- **First-time start-up**: The Fault LED will remain lit. Initial configuration is required, including selection of the appropriate grid code before the inverter can enter normal operation. Grid code settings can be configured via WattDesk (Chapter 10.2) or the inverter screen (Chapter 10.1).
- **Subsequent start-up**: If the grid code has already been set, the system will enter normal operation automatically. The time required to enter operating mode may vary depending on the selected safety code.



Step 5. Verify Operation Status

- Observe the Indicators or LCD display to confirm that the inverter is running normally (Chapter 4.1.2).
- For details on the Pocket WiFi module indicator definitions, refer to Chapter 4.5.

⚠ NOTICE

If the inverter does not work properly, check the country code and battery ID Settings.

- Select the safety code suitable for the country (region) where the inverter is installed at.
- Select the battery ID suitable for the battery is installed.

9.3 Powering Off the System

When turning off the inverter, please follow the steps below:

1. Shut down the inverter through the APP or the button on the display first.
2. Disconnect the breakers on the grid and load side.
3. Turn off the battery **DC Switch**, and disconnect the DC breaker on the battery side (if any).
4. Wait 30 seconds and then turn the **inverter DC switch** to the "OFF" position. At this time, there is remaining power in the inverter capacitor. Wait for 10 minutes until the inverter is completely de-energized before operating.
5. Disconnect the AC and DC cables.

10 Operation

After the inverter is powered on. Users can either operate the inverter through the LCD display (optional) or via the WattDesk cloud platform to view operational information and modify settings. The display screen is optional and may not be included with all models.

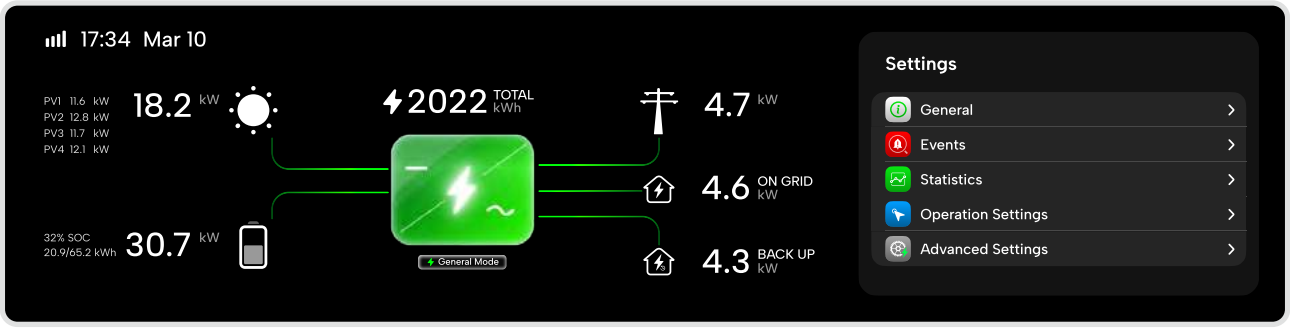
10.1 Inverter Screen

The LCD display shows the overall information of the inverter and the settings.

⚠ NOTICE

Screen interface interactions are performed using the rotary knob. The following are the operating instructions for the rotary knob.

1. Use the rotary knob to navigate through menu options. Rotate the knob clockwise to move to the next option and counterclockwise to move to the previous option. Press the knob to access the next level of the menu.
2. If a parameter has multiple options, use the rotary knob to select the desired option. Press the knob to confirm the selection.
3. If the parameter is a numeric value, press the rotary knob to enter the adjustment mode. Rotate the knob clocKWise to increase the value and counterclockwise to decrease it.
4. If the parameter consists of multiple fields (e.g., an IP address), press the rotary knob to enter the adjustment mode. Rotate the knob clockwise or counterclockwise to select the field to adjust, then press the knob to enter the adjustment mode for that field. Rotate the knob to increase or decrease the value, and press the knob to confirm and move to the next field. Once all adjustments are complete, press and hold the knob to choose between saving or canceling the changes.
5. If the parameter is a toggle option (e.g., ON and OFF), pressing the rotary knob will directly switch between the options.



a) At the top of the screen is the time.

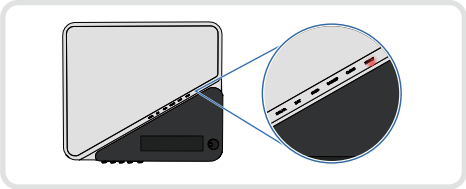
b) The settings menu is located on the right side of the screen, including Basic Settings, Battery Settings, Grid Settings, System Operation Mode, Event Log, Static Data of Advanced Settings.

c) The left side of the screen displays dynamic energy information, showing energy data and flow for the PV system, battery, grid and load.

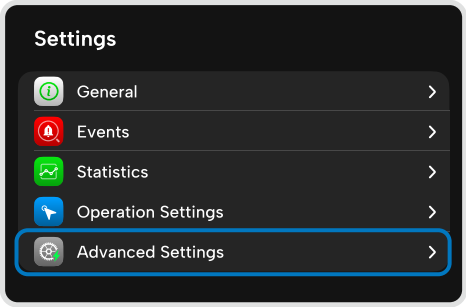
10.1.1 Initial Setup

If the inverter is installed and started for the first time, initial configuration is required. The inverter will only operate normally after the grid code has been set.

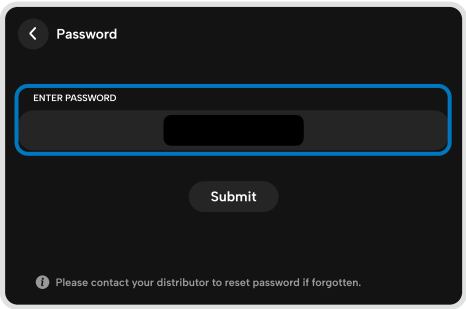
Before the grid code is configured, the Fault indicator remains solid red.



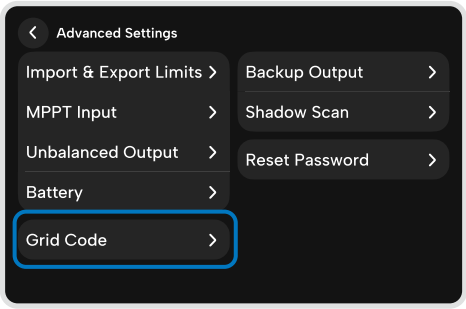
1. Choose and enter the **Advanced Settings**.



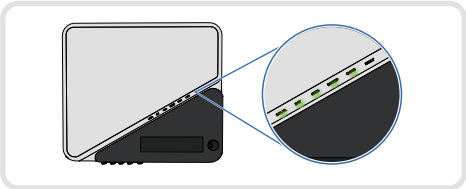
2. Enter the login password.
   - The default password is "**1988**".
   - This password can be changed in **Advanced Settings**.
   - If the password is forgotten after modification, please contact your distributor or Wattsonic for reset support.



3. Choose and enter the **Grid Code**.
4. Select your grid code and confirm the submission.

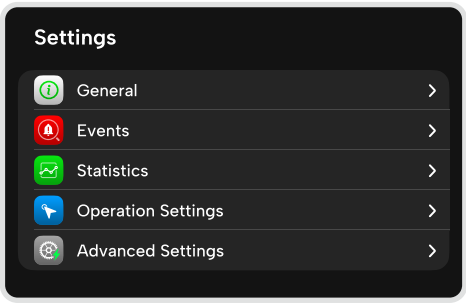


5. After the grid code is successfully configured, the Fault indicator turns off and the other status indicators display normally.



10.1.2 System Configuration

After completing the system initialization, the inverter enters normal operation. System status can be monitored and settings can be adjusted via the right-side display.



10.2 WattDesk APP & Website

10.2.1 WattDesk Preparation

WattDesk: A powerful and comprehensive tool to monitor and manage energy resources.
Get it on: www.wattdesk.com or App Store.
Register an account. If you have got the account and password from your company or Wattsonic, skip this step.

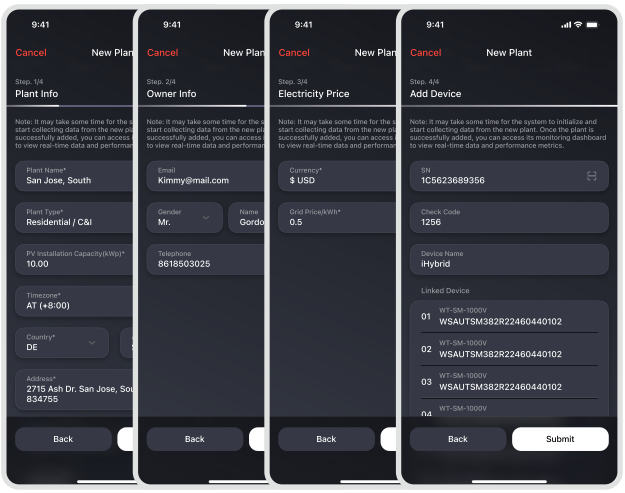
10.2.2 Plant Creation

Prerequisites:

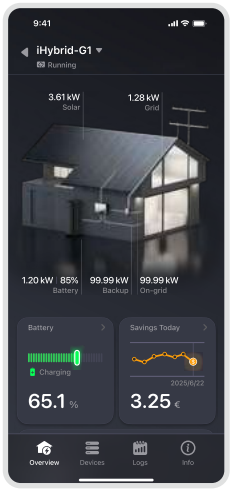
- The user account and password for logging in to the WattDesk App have been obtained from the distributor/ installer or Wattsonic.
- Confirm that both the inverter and BMS are connected to the network and successfully paired with the WattDesk Cloud (refer to Chapter 8).



1. On the **Home page** or the **Plant List** page, tap the "**Add**" button.



2. Follow the on–screen instructions to enter the plant information and **Add Devices**.



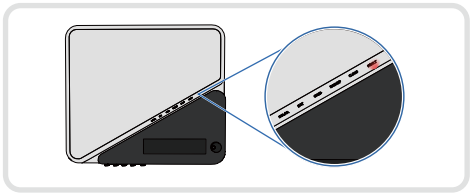
3. After completing the setup, the app will automatically enter the **Plant Details** page, where you can:

- View system status information
- Monitor operating data
- Perform additional settings and configuration

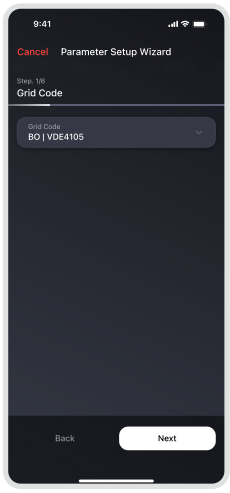
10.2.3 Initial Setup

If the inverter is installed and started for the first time, initial configuration is required. The inverter will only operate normally after the grid code has been set.

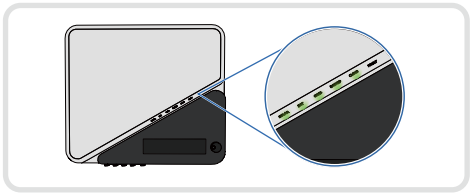
Before the grid code is configured, the Fault indicator remains solid red.



1. Ensure that your inverter is online and linked to the power station. The **Parameter Setup Wizard** page will automatically appear in the power station details.
2. Follow the page to select the grid code and adjust other relevant settings, then save.

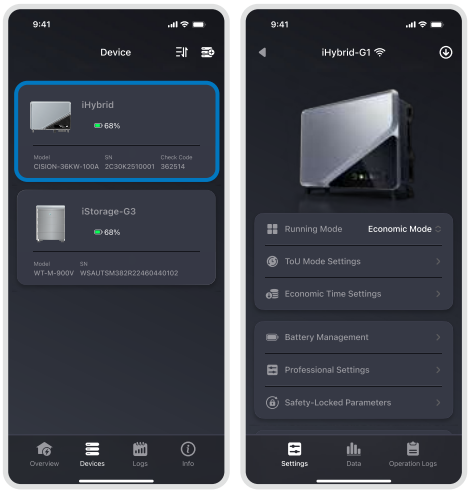


3. After the grid code is successfully configured, the Fault indicator turns off and the other status indicators display normally.



10.2.4 System Configuration

After completing the system initialization, the inverter enters normal operation. System status can be monitored and settings can be adjusted via the device page.



11 Troubleshooting

11.1 Error Message

The product is designed in accordance with applicable grid, safety, and EMC requirements. When a fault occurs, the corresponding message is shown on the display or WattDesk monitoring platform, and power conversion may stop until the fault is cleared.

11.2 Inverter Maintenance

⚠ DANGER

When performing maintenance on the product, do not open it if any abnormalities are present—such as unusual odor, smoke emission, or visible physical damage.

If no abnormalities exist, troubleshoot or restart the inverter according to the alarm handling recommendations. Avoid standing directly in front of the inverter during maintenance.

Improper maintenance may cause personal injury or equipment damage!

- Always use designated insulated tools for high-voltage operations.
- Before performing maintenance, first disconnect the AC circuit breaker on the grid side, then deactivate the DC switch (isolator).
- After de-energizing the inverter for 10 minutes, use testing equipment to verify the absence of voltage and current. Wear protective gear before operating or maintaining the unit. Burn hazards persist after shutdown. Operate the product only after it has cooled down, while wearing insulated gloves.

Any Arbitrary replacement of internal components is forbidden.

Please seek help for maintenance support. Otherwise, we will not take any responsibility.

⚠ CAUTION

Keep unprofessional people away.

A temporary alarm sign or barrier must be posted to keep the unprofessional person away while performing electrical connection and maintenance.

⚠ NOTICE

Restart the inverter only after removing the fault that impairs safety performance.

Never arbitrarily replace any internal components.

For any maintenance support, please contact WattMatic. Otherwise, WattMatic shall not be held liable for any damage caused.

Servicing of the device in accordance with the manual should never be undertaken in the absence of proper tools, test equipment or the latest revision of the manual which has been clearly and thoroughly understood.

Items	Methods	Period
System clean	Check the temperature and dust of the inverter. Clean the inverter enclosure if necessary. Check if the air inlet and outlet are normal.	Six months to a year (it depends on the dust contents in air.)
Electrical connection	Check whether there is damage to the cables, especially the surface in contact with metal.	6 months after commissioning and then once or twice a year.

Items	Methods	Period
Fan	Check whether the fan operates normally, whether there is abnormal noise, and whether the appearance is normal.	1 time / Year
DC Switch	Continuously turn the DC switch on and off 10 times to ensure normal function of the DC switch.	1 time / Year
Sealing	Check whether the cable entry sealing meets requirements. If gaps are too large or not blocked, re-seal them.	1 time / Year

11.3 Battery Maintenance

Installation and maintenance of batteries should be performed or supervised by personnel knowledgeable about batteries and the required precautions.

⚠ CAUTION

Do not dispose of batteries in a fire. The batteries may explode.

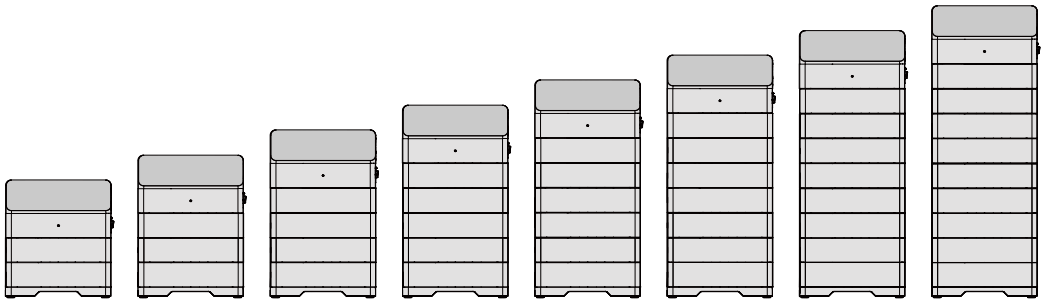
Do not open or damage batteries. Released electrolyte is harmful to the skin and eyes. It may be toxic.

A battery can present a risk of electrical shock and high short-circuit current. The following precautions should be observed when working on batteries:

1. Remove watches, rings, or other metal objects.
2. Use tools with insulated handles.
3. Wear rubber gloves and boots.
4. Do not lay tools or metal parts on top of batteries.
5. Disconnect charging source prior to connecting or disconnecting battery terminals.
6. Determine if battery is inadvertently grounded. If inadvertently grounded, remove source from ground. Contact with any part of a grounded battery can result in electrical shock. The likelihood of such shock can be reduced if such grounds are removed during installation and maintenance.

12 Technical Data

12.1 Battery Parameters



Number of Battery Modules	2	3	4	5	6	7	8	9
Battery Capacity	7.68kWh 153V	11.5kWh 230V	15.3kWh 307V	19.2kWh 384V	23kWh 460V	26.8kWh 537V	30.7kWh 614V	34.5kWh 691V
Size(W*H*Dmm)	570*375*628.2	570*375*763.2	570*375*898.2	570*375*1033.2	570*375*1168.2	570*375*1303.2	570*375*1438.2	570*375*1573.2
Weight(kg)	90kg	125kg	160kg	195kg	230kg	265kg	300kg	335kg
DOD Recommended	90%							
Power Connection Type	Hard Connection with Positioner							
Warranty	10,000 Cycles within 10 Years Guarantee							

*Wattsonic reserves the right to modify the product specifications and appearance described in this datasheet without prior notice.

12.2 Inverter Parameters

Model	MATIC-10KW-50A	MATIC-12KW-50A	MATIC-15KW-50A	MATIC-20KW-50A	MATIC-25KW-50A
PV Input Parameters					
Maximum Input Power	16kW	19.2kW	24kW	32kW	40kW
Max DC Input Voltage	1000V				
Min Input Voltage / Start-up Voltage	150V/180V				
Rated DC Input Voltage	620V				
MPPT Operating Voltage Range	160~950V (derating >850V)				
Full-load DC Voltage Range	300~850V	350~850V	300~850V	300~850V	350~850V
Max Input Current	20A×2	20A×2	20A×4	20A×4	20A×4
Max Short-circuit Current	30A×2	30A×2	30A×4	30A×4	30A×4
Number of Strings per MPPT	1	1	1	1	1
Number of MPPTs	2	2	4	4	4
Grid Input & Output					
Rated Output Power	10kW	12kW	15kW	20kW	25kW
Max Output Apparent Power	11kVA	13.2kVA	16.5kVA	22kVA	25kVA
Max Grid-tied Input Apparent Power	20kVA	24kVA	30kVA	40kVA	50kVA
Max Battery Charging Power	10kW	12kW	15kW	20kW	25kW
Rated Output Current	14.5A	17.4A	21.7A	29A	36.2A
Max Output Current	16.5A	19.1A	23.8A	31.9A	36.2A
Rated AC Voltage	3L/N/PE; 220/380V; 230/400V; 240/415V				
AC Voltage Range	-15%~+10%				
Rated AC Frequency	50Hz/60Hz				
AC Frequency Range	45~55 Hz/55~65 Hz				
Power Factor	>0.99 (at rated power)				
Adjustable Power Factor Range	0.8 (leading) ~ 0.8 (lagging)				
Grid Current Harmonic (THDi)	<3% @ rated power				
DC Component	<0.5% * IpN (rated current)				
Backup Ouput					
Rated Output Power	10kW	12kW	15kW	20kW	25kW
Max Output Apparent Power	11kVA	13.2kVA	16.5kVA	22kVA	25kVA
Peak Output Apparent Power (Sufficient PV and Battery Power)	120% × rated power @60s				
Max Output Current	16.5A	19.1A	23.8A	31.9A	36.2A
Rated Output Voltage	3L/N/PE; 220/380V; 230/400V; 240/415V				
Rated Output Frequency	50Hz/60Hz				
Total Voltage Harmonic Distortion (THDv)	<3% @ linear load				
UPS Switching Time (Upon Grid Outage)	<20ms				

Battery Parameters	
Battery Type	Lithium Battery
Battery Voltage Range	180~800V
Start-up Voltage	180V
Rated Battery Voltage	620V
Max Charge/Discharge Current	50A/50A
Max Charge/Discharge Power	30kW/30kW
Number of Battery Inputs	1
Battery Charging Mode	Controlled by BMS
BMS Communication	CAN
Efficiency Parameters	
Max Efficiency	98.40%
European Efficiency	97.90%
Protection Parameters	
PV Input Reverse Polarity Protection	Integrated
Battery Reverse Polarity Protection	Integrated
Insulation Resistance Protection	Integrated
Surge Protection	Integrated
Overtemperature Protection	Integrated
Leakage Current Protection	Integrated
Anti-islanding Protection	Integrated
Overvoltage Protection	Integrated
Overload Protection	Integrated
Short Circuit Protection	Integrated
AFCI Function	Optional
PID Protection Function	Integrated
BMS Power Supply	Optional 24V (20W)

Basic Parameters	
Overvoltage Category	DC Type II/AC Type III
Dimensions	559*486*259mm
Weight	<51kg
Protection Grade	IP66
Pollution Degree	PCS internal level II
Corrosion Protection Level	C3 (C5 optional by request)
Standby Loss	<15W
Topology	Transformerless
Operating Temperature	-30°C to 60°C, derating >45°C
Relative Humidity	<100%
Storage Temperature	-40~70°C
Storage Humidity	<80%
Max Operating Altitude	4000m (derating above 2000m)
Cooling Method	Smart Forced Air Cooling
Mounting Method	Wall-mounted
Display Method	LED indicators; optional LCD screen
Communication Method	RS485*2; CAN*2; LAN*1; DI*4/DO*2; USB*1; WiFi*1(optional); Bluetooth*1 (optional)
Standards and Certifications	
Grid Standards	EN50549-1:2019, EN50549-10:2022, C10/11:2021, TOR Erzeuger Type A:2022, OVE-Richtlinie R25:2020, VDE4105:2018, VDE0124-100:2020, NC RFG, Type ABCD, PTPiREE, NRS097-2-1
Safety and EMC Certifications	CE-EMC: IEC/EN61000-6-1/2/3/4 CE-LVD: IEC/EN62109-1:2010, IEC/EN62109-2:2011, IEC/EN62477-1:2022 CE-RoHS: IEC63000:2018

*Wattsonic reserves the right to modify the product specifications and appearance described in this datasheet without prior notice.

13 Contact

If you have technical problems with our products, please contact our service. The following data is required in order to provide you with the necessary assistance:

- Model of the device
- Serial number of the device
- Date of installation
- Fault code/name
- Brief description of the problem

China (HQ)

Wuxi Wattsonic Energy Technology Co., Ltd.

Official Website: www.wattsonic.com

Customer Service: service@wattsonic.com

Address: 4th Floor, Building H1, NO.6 Jingxian Road, Xinwu District, Wuxi 214135, China

WATTSONIC

www.wattsonic.com