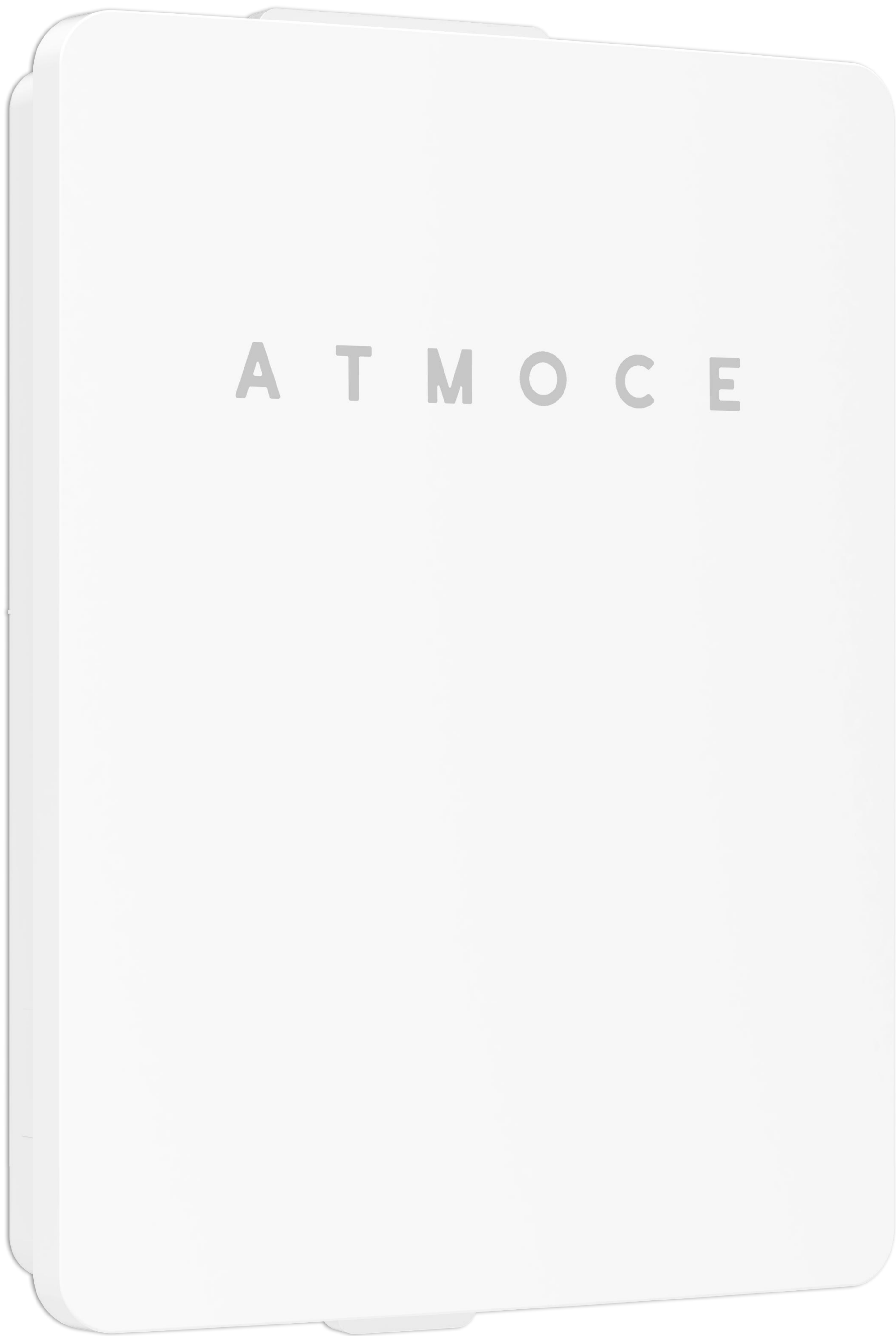


M-Combiner PRO

MC100PRO-T User Manual



About This Document

Corporate Contact Information

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Disclaimer

- Product information is subject to change without prior notice. Every effort has been made in the preparation of this document to ensure accuracy of the contents, but all statements, information, and recommendations in this document do not constitute a warranty of any kind, express or implied.
- For optimum reliability and to meet warranty requirements, this product must be installed in accordance with the instructions in this manual.

Applicable Scope

- This manual is intended for professional installation and maintenance personnel only.
- This manual mainly introduces the assembly, installation, configuration, maintenance and troubleshooting methods of the MC100PRO-T combiner.

Revision History

	Date	Version	Description
1	08/07/2026	Rev. 1.0.0	First release

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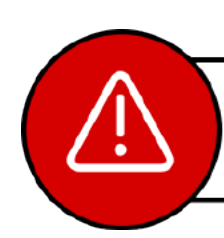
Safety Information

1.1 Statement

- Before installing or using the ATMOCE M-Combiner PRO, please carefully read the user manual, all instructions and safety labels on the product, and any safety manuals available. Not following these safety instructions may result in personal injury, damage to the equipment, or invalidation of the warranty.
- DANGER, WARNING, CAUTION, and NOTE in this manual imply that they must be observed. You must also comply with relevant international, national or regional standards and industry practices. ATMOCE assumes no responsibility for any violation of safe operation requirements or of safety standards for the design, manufacture and use of the equipment.
- This equipment should be used in an environment that meets the design specifications; otherwise, the equipment failure, abnormal equipment function or damage to components that arises shall not be covered by the warranty.
- All operations such as transport, storage, installation, operation, use, maintenance, etc. should comply with applicable laws, regulations, standards and specifications.

1.2 Safety Labels

To reduce the risk of electric shock and to ensure the safe installation and operation of the microinverter system, the following safety symbols are used throughout this manual to indicate hazardous conditions and important safety instructions.

- | | |
|--|---|
|  Danger | A label indicates a hazard with a high level of risk. If not avoided, it may result in serious personal injury or death. |
|  Warning | A label indicates a hazard with a medium level of risk. If not avoided, it may result in serious personal injury or death. |
|  Caution | A label indicates a hazard with a low level of risk. If not avoided, it may result in serious personal injury or death. |
|  Note | A label indicates a safety hazard and risk of device damage. If not avoided, it may result in equipment damage, data loss, reduced performance, and other consequences, but does not involve personal injury. |

1.3 Personal Safety Instructions



Danger

- The installation process is strictly prohibited to operate with electricity. It is prohibited to install or remove cables with electricity. The moment the cable core touches the conductor, it will generate electric arc or electric spark, which can lead to fire or personal injury.
- When equipment is energised, unregulated and incorrect operation may produce a fire, electric shock or explosion, resulting in injury, death or property damage.
- Do not work alone. When using or working near electrical equipment, someone should be within earshot or close enough to help you. Remove rings, bracelets, necklaces, watches, etc. when operating PV modules, microinverters, M-Combiner PROs and other electrical equipment.



Warning

- Specialised protective equipment must be used during operations, such as protective clothing, insulated shoes, goggles, helmets and insulated gloves.
- Do not ignore warnings, cautions and precautions in manuals and on equipment.
- During operation of the equipment, if a malfunction is detected that could result in personal injury or equipment damage, immediately terminate the operation, report it to the person in charge, and take effective protective measures.
- Do not apply power to the equipment before installation is completed or without confirmation from a qualified person.



Note

- Do not install by untrained personnel. ATMOCE shall not be liable for any loss or damage caused by improper use, installation, or misuse of the product.
- Personnel responsible for installing and maintaining the equipment must first be trained in the correct methods of operation and be aware of the various safety precautions and relevant standards in their country/region.
- Personnel in special scenarios such as electrical operation, work at heights, and operation of special equipment must have special operating qualifications required by the local country/region.

1.5 Cable Safety Instructions



Danger

- Do not attempt to install cables unless the circuit is disconnected.
- Take care not to damage the copper conductor of the cable when stripping the cable sheath. If the exposed wires are damaged, the system may not function properly.



Warning

- Ensure that all AC and DC wiring is correct and that none of the AC or DC cables are pinched, shorted, or damaged. Ensure that all AC junction boxes are properly closed.
- Do not leave the connectors on the cable uncovered for long periods of time. Unused AC connectors must be covered with caps because they are energised when the system is powered on.
- All cables must be firmly connected, well insulated, and of appropriate specifications.
- If it is necessary to remove the sealing caps or connectors, use the disconnection tool supplied by ATMOCE.



Note

- Cable selection and routing must follow local laws, regulations and norms.
- When routing cables, make sure that the minimum bending radius of cables is 8xOD (8 times the cable's outer diameter) or r55 mm.
- In the process of laying power cables, if the length of the power cable is found to be insufficient, the power cable must be replaced, and it is strictly prohibited to make joints or welding points in the power cable.
- Do not expose terminals or cable connectors to continuous tension and avoid pulling or bending the cable at the connection.
- Avoid routing cables with overly tight cable clamps.
- Cable crossing holes should be free of sharp edges to avoid damage to the cables by sharp edges, burrs, and so on.
- Ensure that the cable connector is kept free from dirt or debris and prevent dirt or debris from entering the connector.

1.6 CT Safety Instructions



Danger

- To avoid the risk of electric shock, always disconnect the circuit from the distribution system (the distribution panel) before installing or repairing the current transformers (CTs).
- Do not install CTs when the sensing circuit is energised. Before turning on the sensing circuit, the CT signal cable must be installed in the terminal.
- Only qualified personnel should troubleshoot, install or replace CTs.
- Mount the CTs and cables so that they do not come into direct contact with live terminals.



Warning

- Failure to follow these instructions may result in damage to the equipment.
- Please observe national and local electrical regulations for all electrical installations.

1.7 Environment Instructions



Danger

- Do not place the equipment in an environment where flammable or explosive gases or fumes are present, and it is forbidden to carry out any operation in such an operation.
- Do not install or use the equipment in a potentially explosive environment.
- Do not place the equipment near sources of heat or ignition, such as fireworks, candles, heaters or other heat generating devices, as heat from the equipment may result in damage to the equipment or cause a fire.
- Do not expose terminals or connectors to direct sunlight.

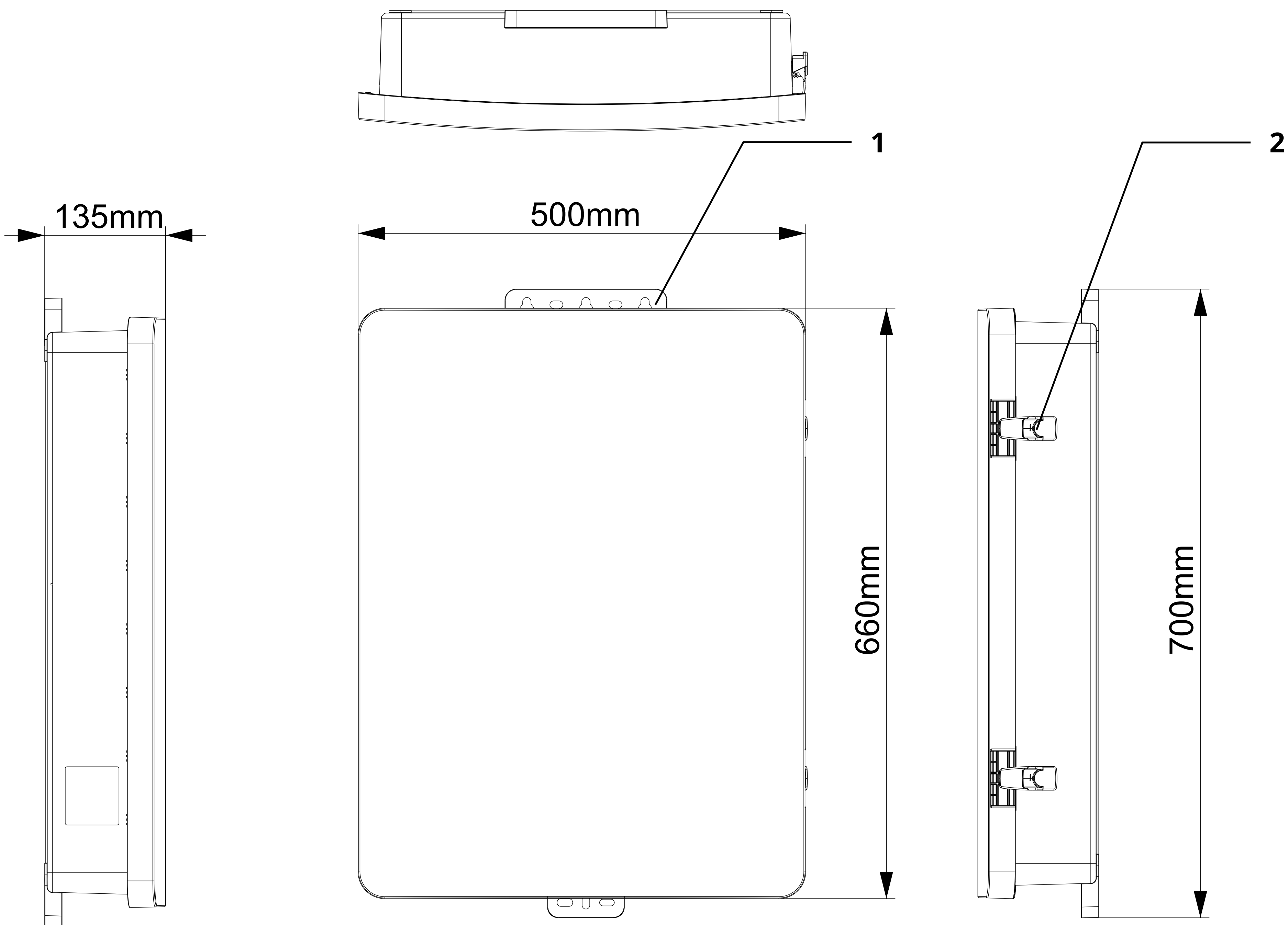


Warning

- Do not attempt to install the equipment in adverse weather conditions.
- Do not expose terminals or connectors to directed pressurized liquids (such as water jets).
- Do not immerse the terminals or connectors in liquid.
- Do not install the equipment in an environment with volatile gases, corrosive gases or organic solvents.
- Do not install the equipment in an area with strong vibration, strong noise sources, and strong electromagnetic field interference.
- When installing the equipment, make sure that the mounting surface is sturdy and meets the equipment load-bearing requirements.
- After installing the equipment, remove empty packing materials, such as cardboard boxes, foam, plastic, cable ties, etc., from the equipment area.

2.2.3 Product Structure

Section A. MC100PRO-T Dimensions



- 1. Mounting Tab
- 2. Door Locks

Storage Requirements

If the product is not to be used and installed immediately, it must be stored in accordance with the following requirements:

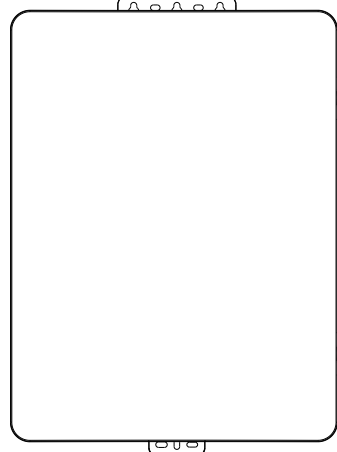
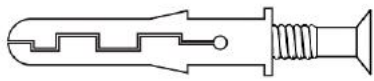
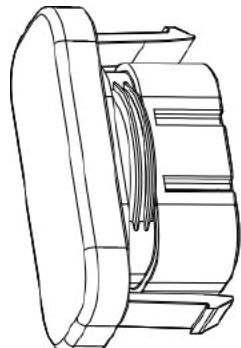
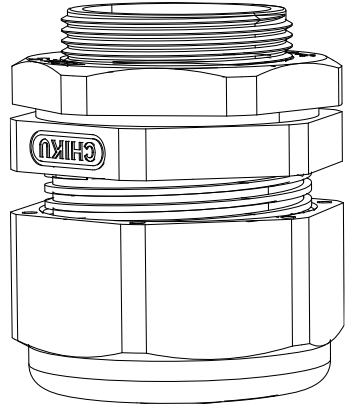
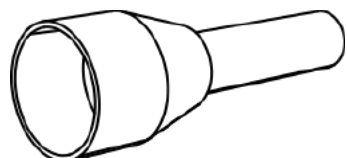
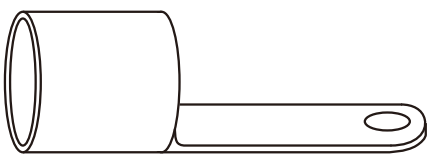
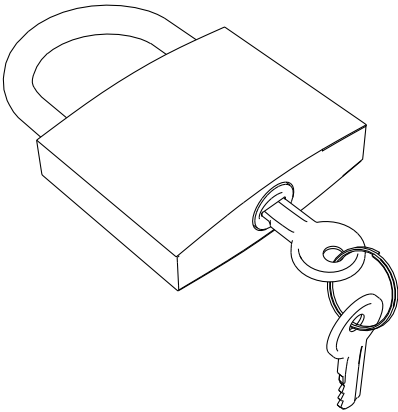
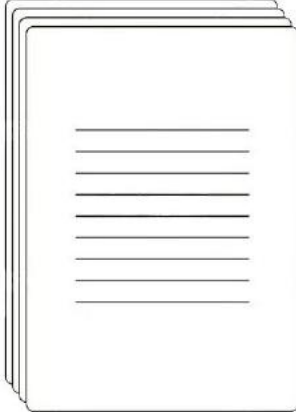
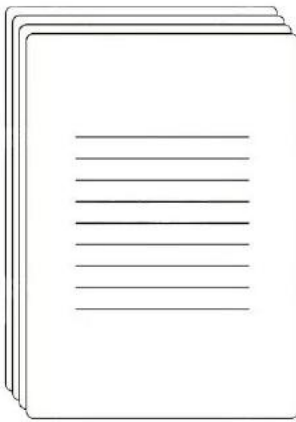
- Do not remove the outer packaging of the product.
- The storage temperature should be maintained within $-40\text{ }^{\circ}\text{C}$ to $+70\text{ }^{\circ}\text{C}$.
- The relative humidity should be maintained between 4% RH and 100% RH.
- Store the product in a clean and dry place, away from dust and moisture.
- Stack no more than 8 layers high. When stacking, please be careful when placing the packaging box to avoid personal injury or equipment damage caused by equipment tipping over.
- Regular inspections are required during storage (once every three months recommended). If the product has been placed in storage for two years or longer, it must be inspected and tested by qualified personnel before use.

Installation

4.1 Prepare for Installation

4.1.1 Check the Items in the Package

Please make sure that the following items are included in the package before installation.

Item	Catalog	Model	Description
	M-Combiner PRO	MC100-T	Single-phase M-Combiner PRO
	Wall anchors and screws	M8	Mount the combiner on the wall
	AC cable sealing cap	MA-002	Cover the unused connectors
	Waterproof glands	M40 M32 M25	Rain-tight fittings on the holes
	Cold-press terminals	/	Cover the cable ends
	OT terminals	/	Cover the cable ends
	Lock and key	/	/
	Marking plate	/	Determine the location of installation on the wall
	Delivery inspection report	/	/
	Quick installation guide	/	/

4.1.2 Check the Grid Voltage

ATMOCE combiner should connect to a three-phase grid. Measure AC line voltages at the point of connection to confirm that they are within the ranges.

Grid setup	Voltage range	
Three-phase	L1, L2, L3 to N	176 to 276 Vac

4.1.3 Plan the Number of Microinverters on each PV AC Branch

The number of microinverters on each PV AC branch shall not exceed the following limits respectively:

Model	Max microinverters/per phase @ 20A branch	Max microinverters/per phase @ 25A branch
MI-1200-2M	3	3
MI-1000-2M	3	4
MI-900-2M	4	5
MI-800-2M	4	5
MI-600	6	8
MI-500	7	9
MI-450	8	10
MI-425	8	10
MI-400	9	11
MI-380	10	12

4.1.4 Prepare the Cables

To properly set up the system, it is necessary to select the appropriate cables. The table below shows the recommended cable requirements. The breakers and cables can be adjusted to meet local electrical codes.

Connection		Recommended cable size	Terminal requirement
Microinverter	Power cable	4 to 6 mm ² , 4-core	Cold-pressed Terminal
	Grid	Power cable	Cold-pressed Terminal
Battery	Power cable	6 to 16 mm ² , 5-core	Cold-pressed Terminal
	CAN cable	0.25 to 0.75 mm ² , 3-core	Cold-pressed Terminal
Device	Control cable	0.25 to 0.75 mm ² , 2-core	Cold-pressed Terminal
	ETH cable	802.3, Cat 6 UTP ethernet cable	RJ45
Router	ETH cable	802.3, Cat 6 UTP ethernet cable	RJ45

NOTE:

- When connecting the cables to the M-Combiner PRO, you must cover the cable ends by using the proper cold-press terminal provided in the package.
- When stripping the cable, remove approximately 12–15 mm of the insulation layer from the power cable and 8 mm of the insulation layer from the communication cable.
- Refer to the local electrical regulations to select the cable size, 16 mm² power cables are supported only when the cable outer diameter is ≤ 20 mm.

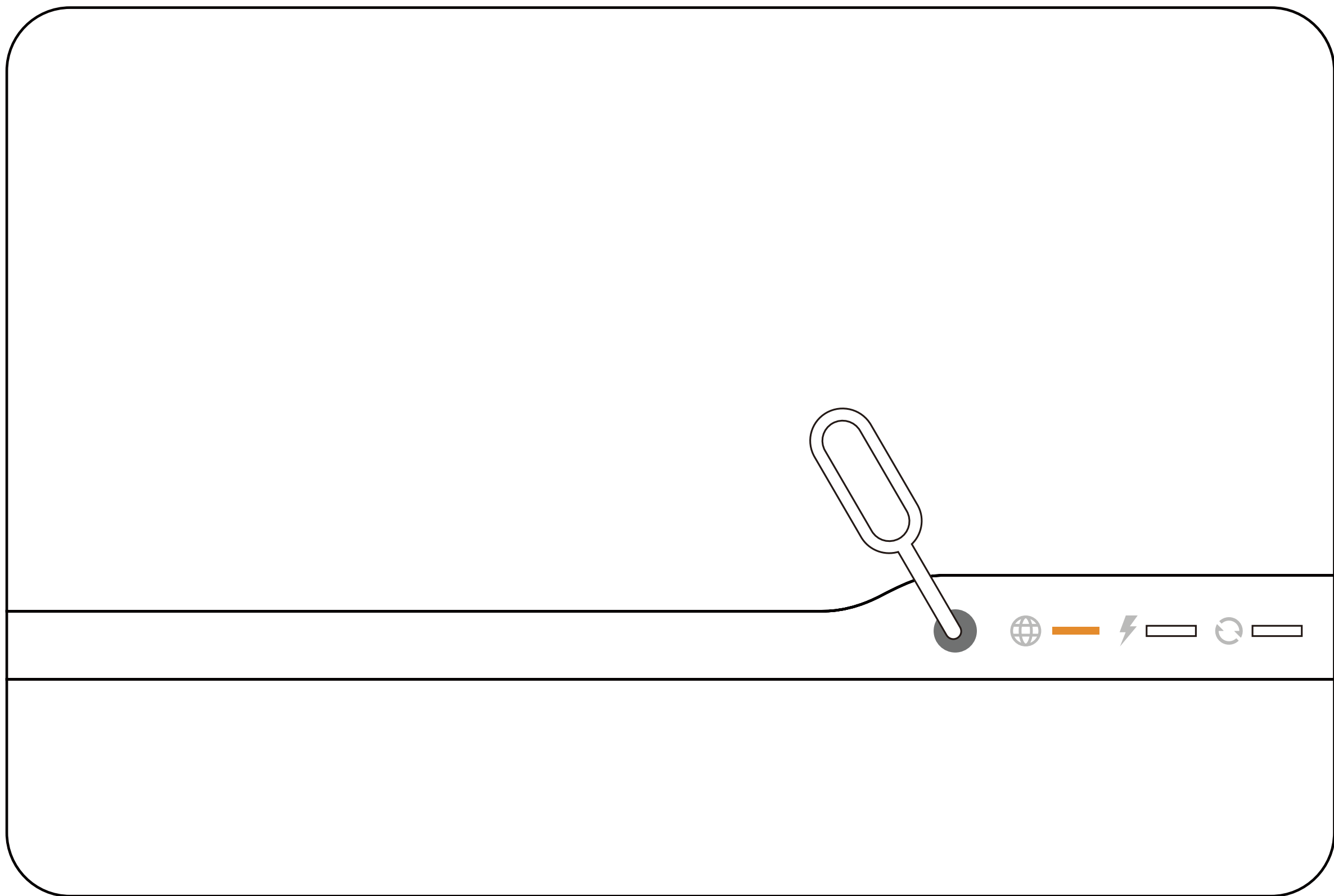
Deployment Guide

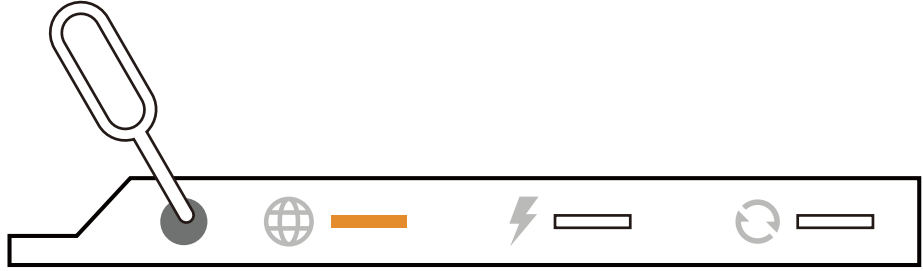
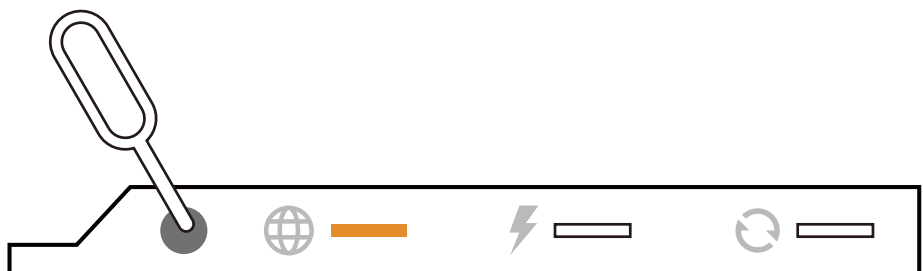
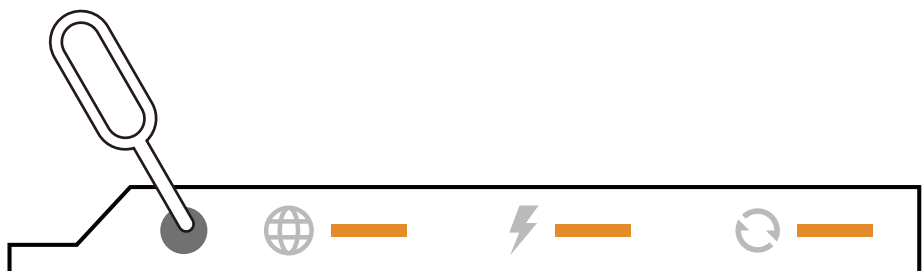
**Note**

- Ensure that your phone's operating system meets the following requirements: iOS 16.3.1 or later, or Android 11 or later.
- Complete the creation of the installer role following the registration process on the app.
- Before the configuration, confirm that all microinverters, gateways, batteries, and other loads have been installed and powered on.

6.3 MG100 Reset Button

a. The MG100 has a reset button. The location of the button and the reset operation are shown as below.



Function		Operation	Duration
1	Turn On Bluetooth	 Press until the network indicator quickly flashes orange three times.	3s < Press < 10s
2	Turn Off Bluetooth	 Press until the network indicator slowly flashes orange three times.	3s < Press < 10s
3	Restart the MG100	 Step1: Press until all indicators are solid orange. Step2: Release the button. Step3: Press until all indicators are dimmed.	10s < Press < 20s 0s < Wait < 5s 10s < Press < 20s

