M-Gateway

MG100 User Manual

ATMOCE

About This Document

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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.
- For warranty text, please refer to https://www.atmoce.com/warranty.

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 M-Gateway.

Revision History

	Date	Version	Description
1	24-01-2025	Rev. 1.0.0	First release

Contents

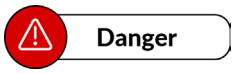
Safety Information

1.1 Statement

- Before installing or using the M-Gateway, 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 specifcations; 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 specifcations.

1.2 Safety Labels

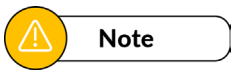
To reduce the risk of electric shock and to ensure the safe installation and operation of the microinverter system, the following safety symbols are used throughout this manual to indicate hazardous conditions and important safety instructions.



A label indicates a hazard with a high level of risk. If not avoided, it may result in serious personal injury or death.

A label indicates a hazard with a medium level of risk. If not avoided, it may result in serious personal injury or death.

A label indicates a hazard with a low level of risk. If not avoided, it may result in serious personal injury or death.



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 fre 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, Combiners 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.

1.4 M–Gateway Safety Instructions

Danger

- The M-Gateway must be installed in the combiner, which must meet the IP65 ingress protection standard.
- Do not attempt to repair the M-Gateway without authorizationas it does not contain any user repairable components. Unauthorized disassembly, repair, or destruction of the M-Gateway and its internal components will void the warranty. In case of malfunction of the M-Gateway, please contact Atmoce for technical assistance (web link).
- Do not use the M-Gateway in any way other than as specified by Atmoce as unauthorized use may result in personal injury or damage to the equipment.
- Do not use accessories that have not been approved by Atmoce as this may result in equipment damage or personal injury.
- Do not operate the M-Gateway if the appearance is damaged.

Warning

- Check that the cables and connectors to ensure that they are in good condition. Do not operate the M-Gateway with damaged or unqualified cables or connectors.
- Do not disassemble the enclousure except for necessary maintenance.

Note

- Please select cables that meet safety requirements based on the parameters of the circuit breaker, check the cables and connectors to ensure that they are in good condition and in rated condition.

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.
- All cables must be firmly connected, well insulated, and of appropriate specifications.

Note

- Cable selection and routing must follow local laws, regulations and norms.
- 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.

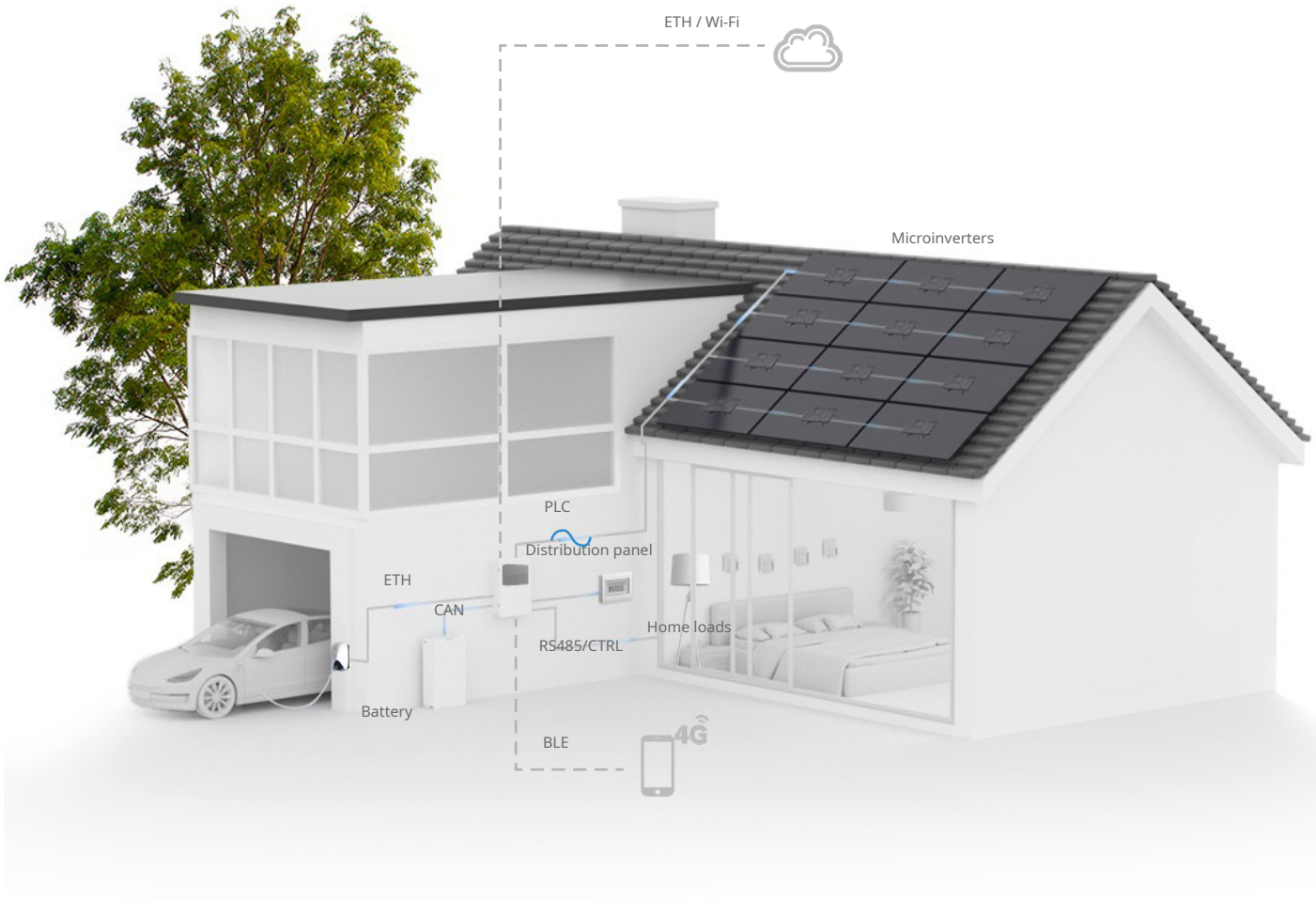
Warning

- 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.
- After installing the equipment, remove empty packing materials, such as cardboard boxes, foam, plastic, cable ties, etc., from the equipment area.

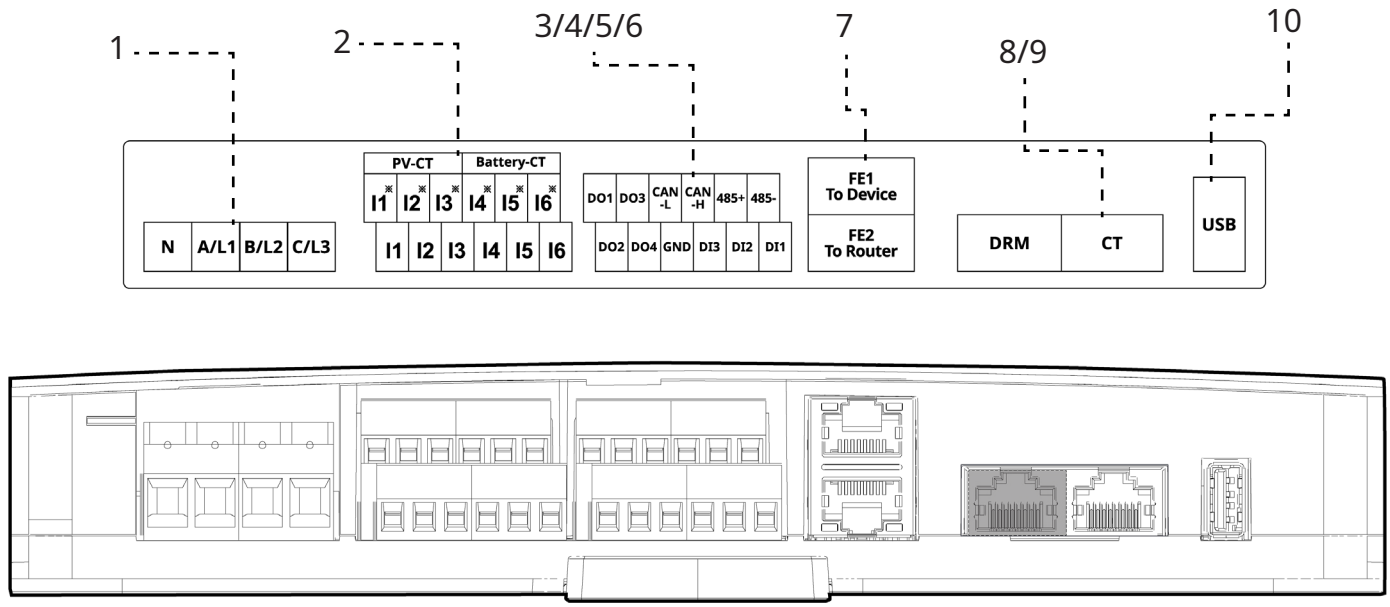
Product Information

2.1 Overview

M-Gateway is an intelligent device for home energy management, which facilitates seamless communication between microinverters, batteries and home smart devices, optimizing power usage, tracking energy production, and ensuring efficient distribution. With M-Gateway and ATMOZEN App, users can view real-time energy performance.



2.2 Interface Description



1. Power Supply and PLC Communication Interface:
   a. Single-phase wiring: Connect to N and L1;
   b. Three-phase wiring: Connect to N,A/L1,B/L2,C/L3;

2. CT Interfaces:
   a. I1,I2,I3,I1*,I2*,I3*: For PV-side CT wiring;
   b. I4,I5,I6,I4*,I5*,I6*: For battery side CT wiring;

3. DO (Digital Output) Interfaces:
   There are 4 DO interfaces in total:
   a. 2 DOs can be used for load control;
   b. 1 DO for on/off-grid control;
   c. 1 DO is reserved.

4. DI (Digital Input) Interfaces:

There are 3 DI interfaces in total:

a. On/off-grid scenarios, 2 DI interfaces are used for detection, and the remaining 1 DI is available for customer use;

5. CAN Interface:

a. Supporting CANFD mode, used for communication with compatible energy storage batteries.

6. RS485 Interface:

a. Which supports communication with third-party devices, such as M-Relay, electricity meters, diesel engines, etc.

7. FE Interfaces:

a. FE1 supports communication with third-party devices like EV Charger.

b. FE2 connects to the network.

8. DRM Interface:

a. Used for controling third part devices only in Australia.

9. Consumption CT interface:

a. Can be directly connected to the grid CT.

10. USB Interface:

a. Used to connect a 4G-Dongle (optional).

2.3 Functional characteristics

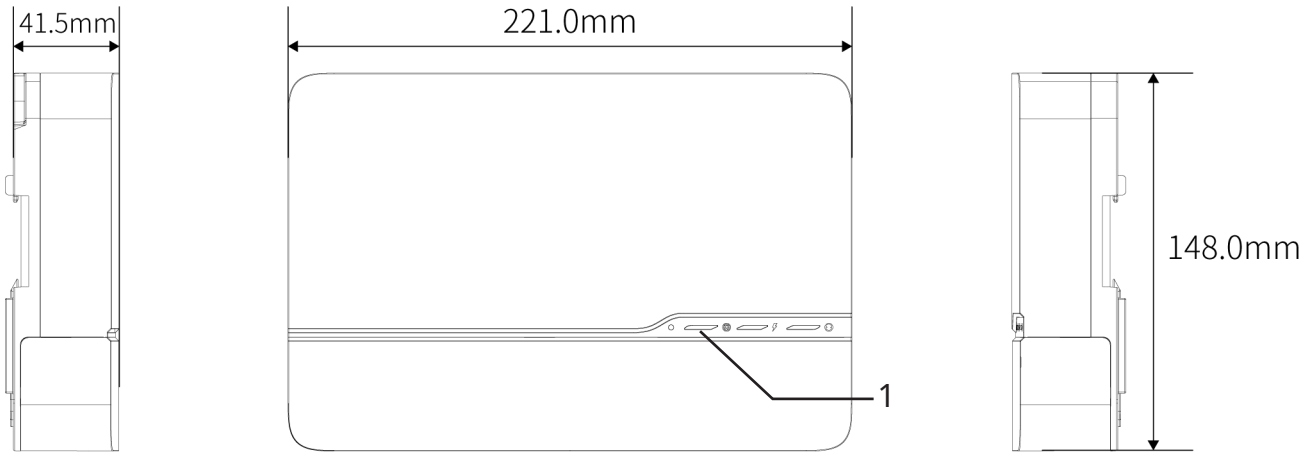
- Intelligence

  The M-Gateway serves as the brain of the home energy system, offering real-time control, improved efficiency, cost savings, and seamless integration of renewable energy and smart devices.

- High Performance

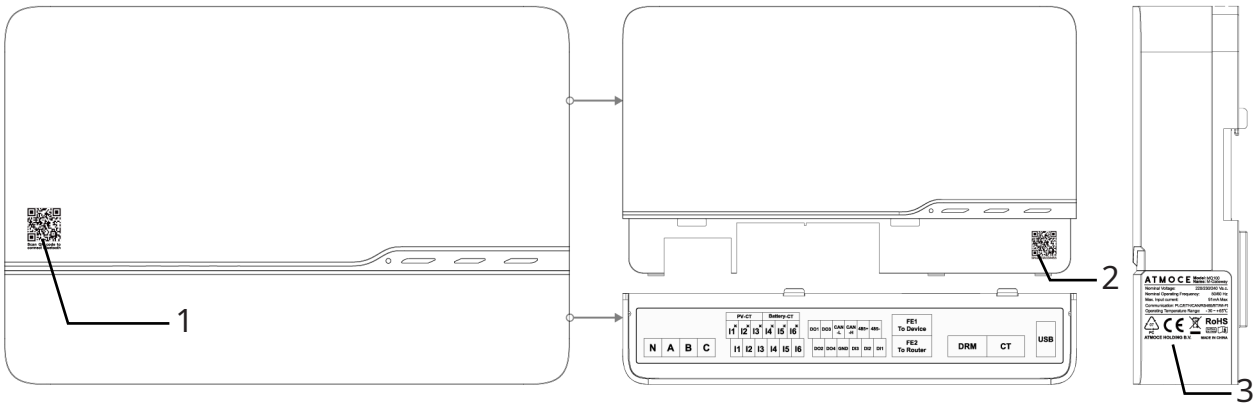
  The M-Gateway can connect up to 90 microinverters and supports multiple communication methods, including PLC, Wi-Fi, Ethernet (ETH), BLE, RS485, and CAN.

2.4 Product Structure



1. Three Indicator LED

2.5 Product Labels



1. Scan QR code to connect Bluetooth

2. SN code

3. Nameplate Label

Nameplate Label Symbols

The following symbols appear on the nameplate label:

Symbol	Description
	Made of PC material. Do not heat or expose to direct sunlight.
	The product has passed CE related certification.
	Waste of electrical and electronic equipment. This product cannot be treated as household waste. Please dispose of it in accordance with local regulations or return it to Atmoce.
RoHS	Restriction of Hazardous Substances. The product has passed RoHS certification.
	Please read the user manual before using the equipment.

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 ℃ to +70 ℃.
- The relative humidity should be maintained between 5% RH to 95% RH.
- Store the product in a clean and dry place, away from dust and moisture.
- Stack no more than 10 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 Preparations

4.1.1 Check the Items in the Package

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

Item	Catelog	Model	Description
	M-Gateway	MG100	Device
	Quick installation guide	/	Guide on–site installation
	Inspection Report	/	Ensure products meet quality standards

4.1.2 Check the Grid Voltage

Atmoce system should connect to a three–phase grid. Measure AC line voltages at the point of connection to confirm that they are within the ranges.

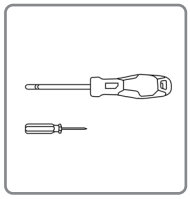
Grid setup	Voltage range	
Single-phase	L to N	184 to 276 Vac
Three–phase	L1, L2, L3 to N	184 to 276 Vac

4.1.3 Cable requirements

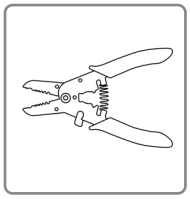
To properly set up the system, it is necessary to select the appropriate cables. The table below shows the recommended cable requirements. The breakers and cables can be adjusted to meet local electrical codes.

Connection	Recommended cable size		Terminal requirement
Power	Power cable	1-2.5mm^2	Cold-pressed Terminal

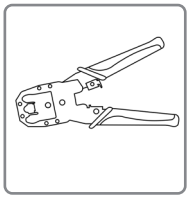
4.1.4 Prepare the Tools and Materials



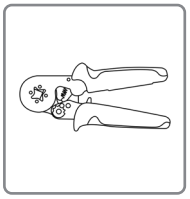
Screwdriver (M8)



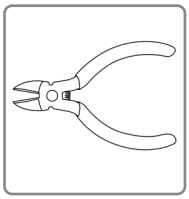
Wire stripper



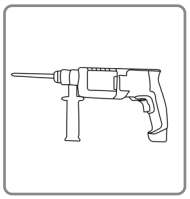
Power line crimper



Communication line crimper

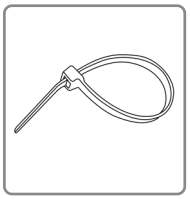


Diagonal cutter



Drill

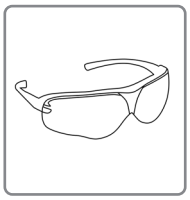
Torque wrench



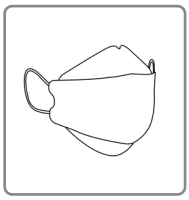
Tie wrap

4.1.5 Prepare the Safety Equipment

Safety helmet



Protective goggles



Mask

Safety clothing

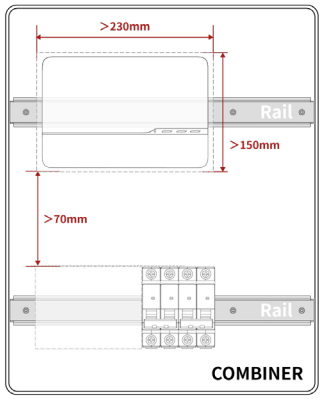
Safety gloves

Safety belt

Safety shoes

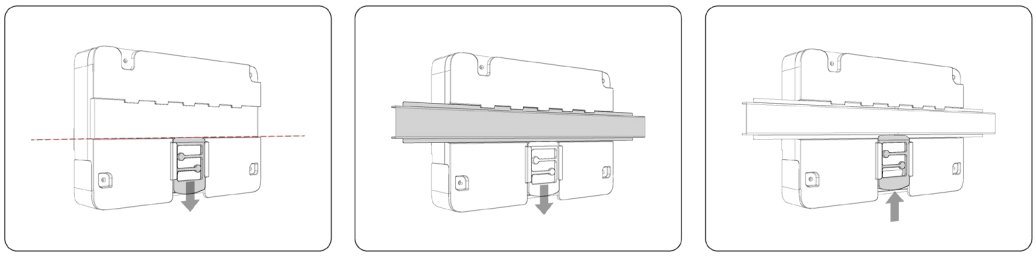
4.2 Install the DIN rail:

a. Ensure the space meets the M-Gateway installation requirements as shown in the figure on the bottom.
b. Ensure there is at least 70mm of clearance between the bottom of the M-Gateway and other devices.



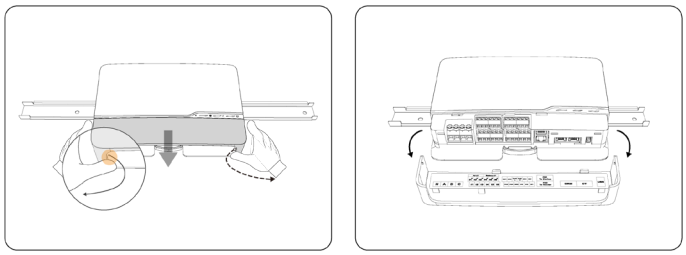
4.3 Mount the M-Gateway:

a. Pull down the securing clip on the M-Gateway.
b. Align the M-Gateway with the 35mm punched DIN rail inside the combiner box.
c. Release the securing clip.



4.4 Remove the cover:

a. Press the cover buckles outward simultaneously.
b. Pull the cover and check the interface diagram inside the gateway cover.



4.5 Connect the Cables

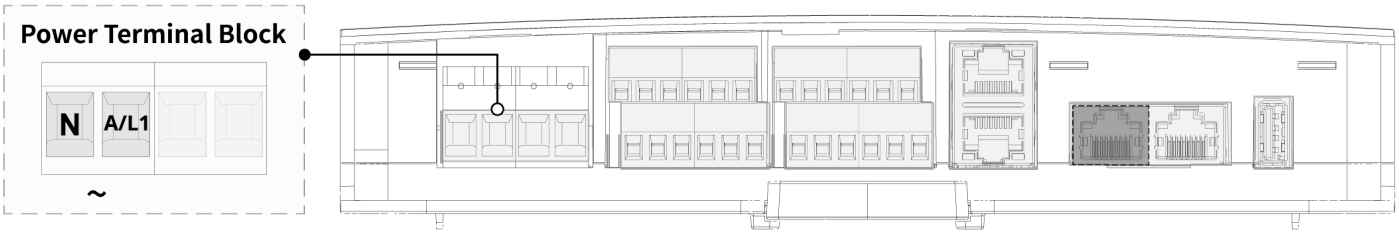
4.5.1 Single-phase Scenario

Section A. Connect the power cables to Power Terminal Block

a. Use a power cable to connect Terminal N to phase N inside the combiner.

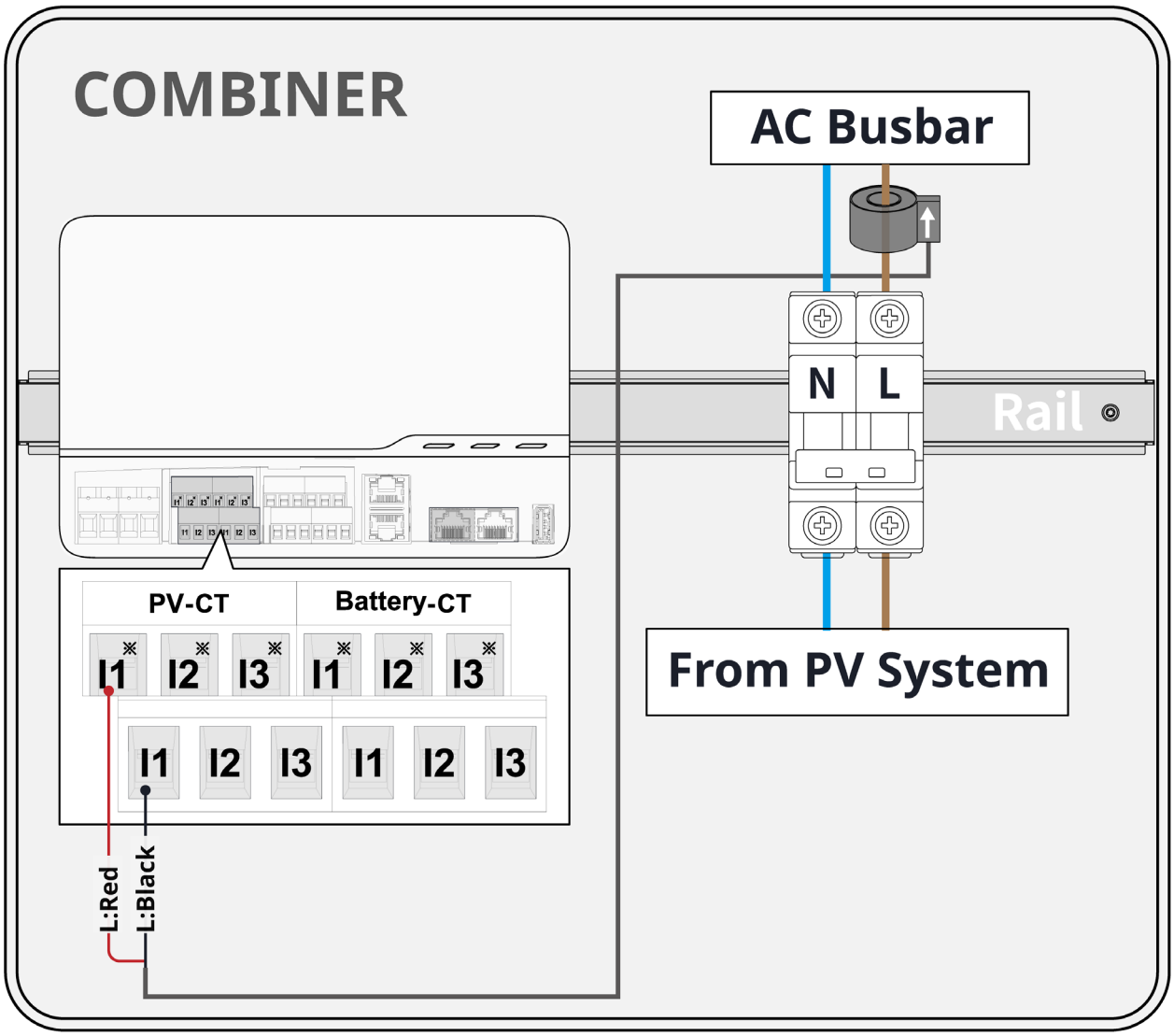
b. Use a power cable to connect Terminal A/L1 to phase L inside the combiner.

c. Optional: It is recommended to install a 10A-rated circuit breaker to control the power on/off for the M-Gateway.



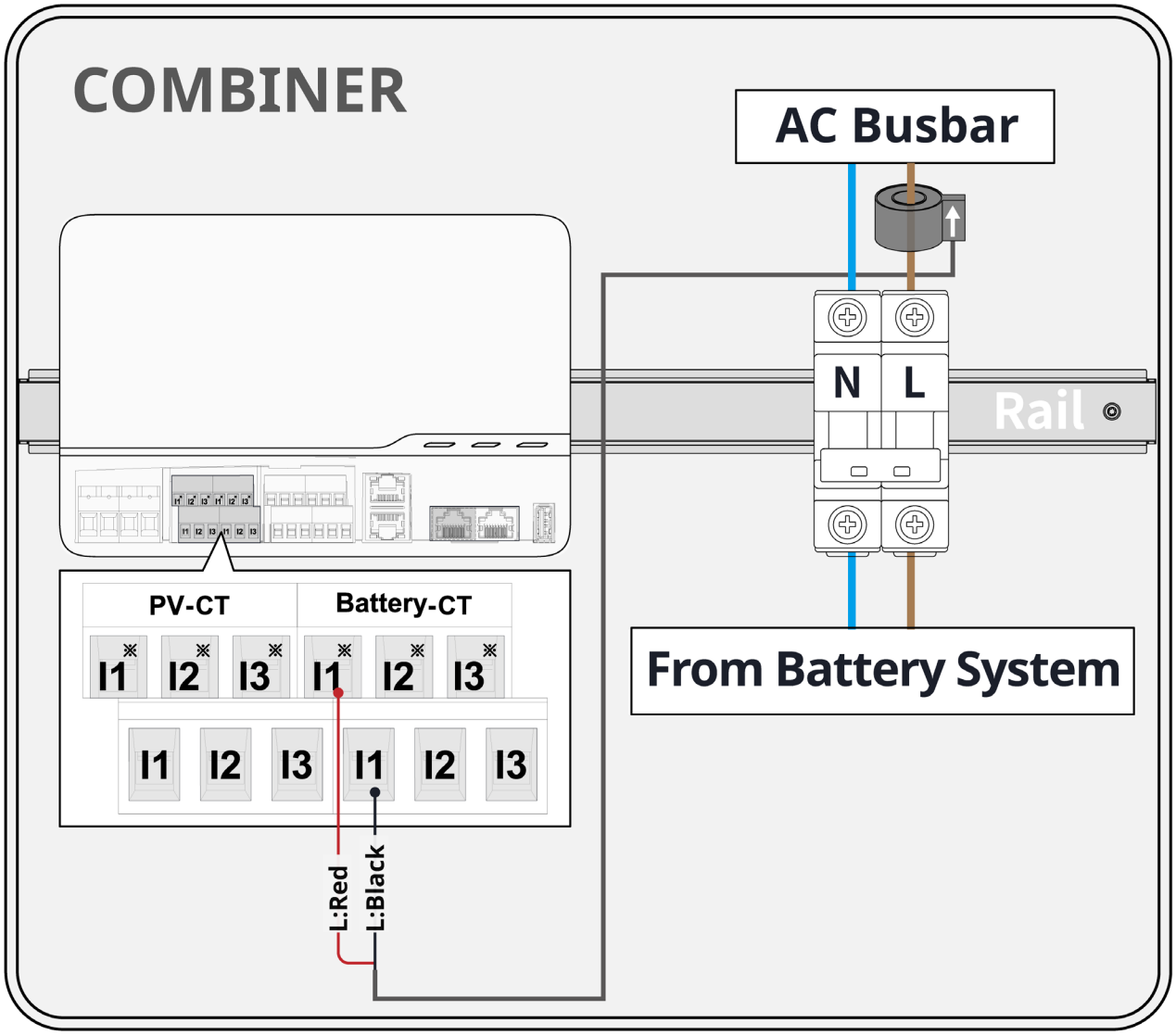
Section B: Connect the PV production CTs

a. Connect the red wire of the CT to the I1* terminal.
b. Connect the black wire of CT to the I1 terminal.
c. Locate the arrow on the CT label and thread the L cable from the PV system into the CT with the label "L." The arrows on the CTs must point away from the PV system.
d. Tighten the gateway screws to 0.4 N·m.



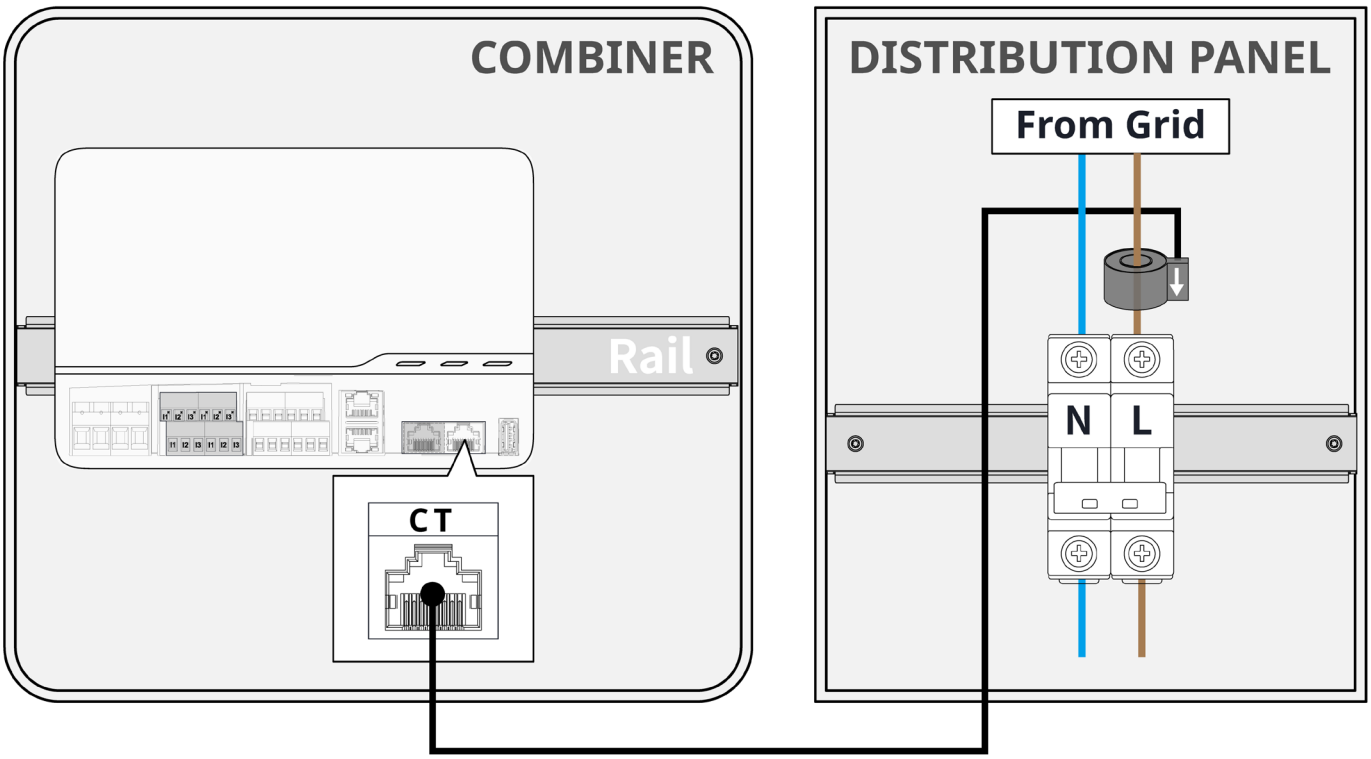
Section C: Connect the battery production CTs

a. Connect the red wire of the CT to the I1* terminal.
b. Connect the black wire of the CT to the I1 terminal.
c. Locate the arrow on the CT label and thread the L cable from the battery system into the CT labeled "L." The arrows on the CTs must point away from the battery system.
d. Tighten the gateway screws to 0.4 N·m.



a. Connect the CT signal line to the RJ45 terminal as shown below.

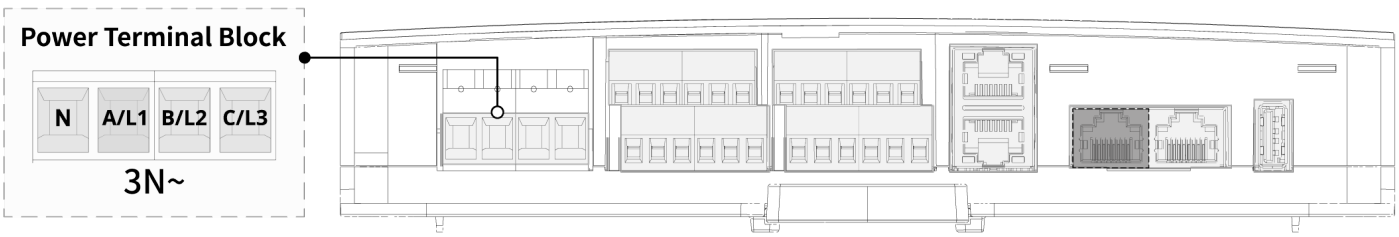
b. Locate the arrow on the CT label and clip the CT with the "L" label to the L cable. The CT arrow must point away from the grid.



4.5.2 Three-phase Scenario

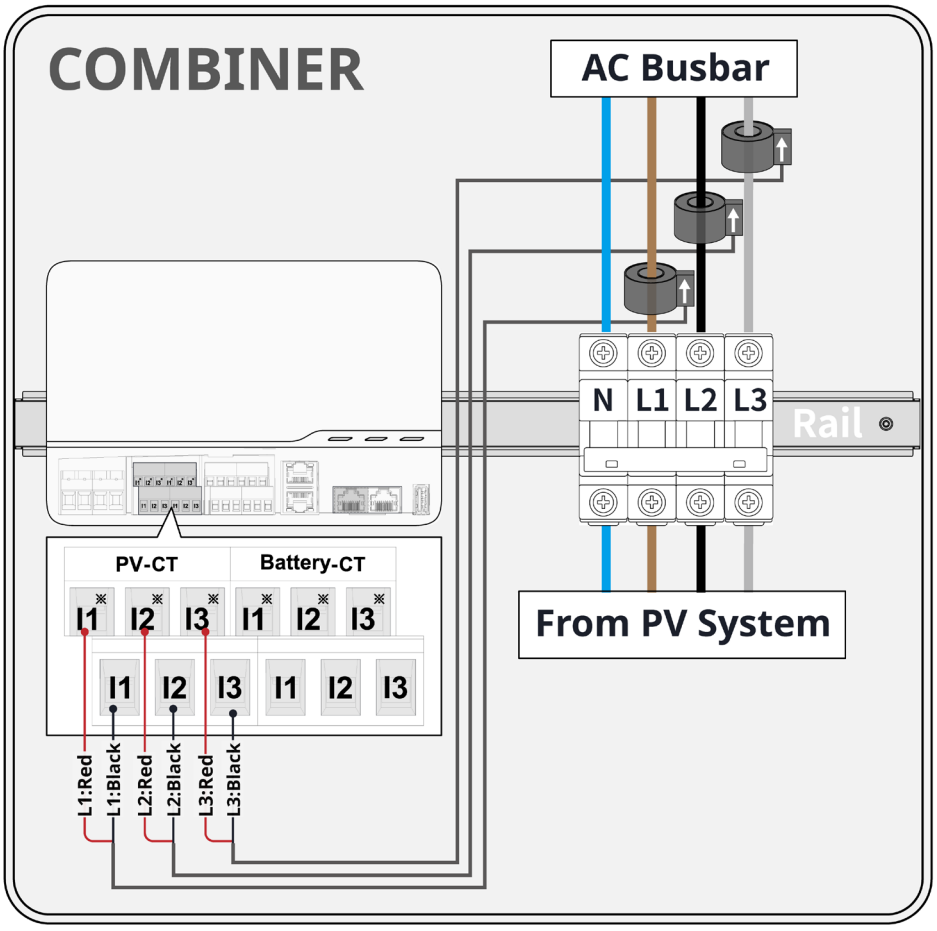
Section A: Connect the power cables within Power Terminal Block

a. Use a power cable to connect Terminal N to phase N inside the combiner.
b. Use a power cable to connect Terminal A to phase L1 inside the combiner.
c. Use a power cable to connect Terminal B to phase L2 inside the combiner.
d. Use a power cable to connect Terminal C to phase L3 inside the combiner.
e. Optional: It is recommended to install a 10A-rated circuit breaker to control the power on/off for the M-Gateway.



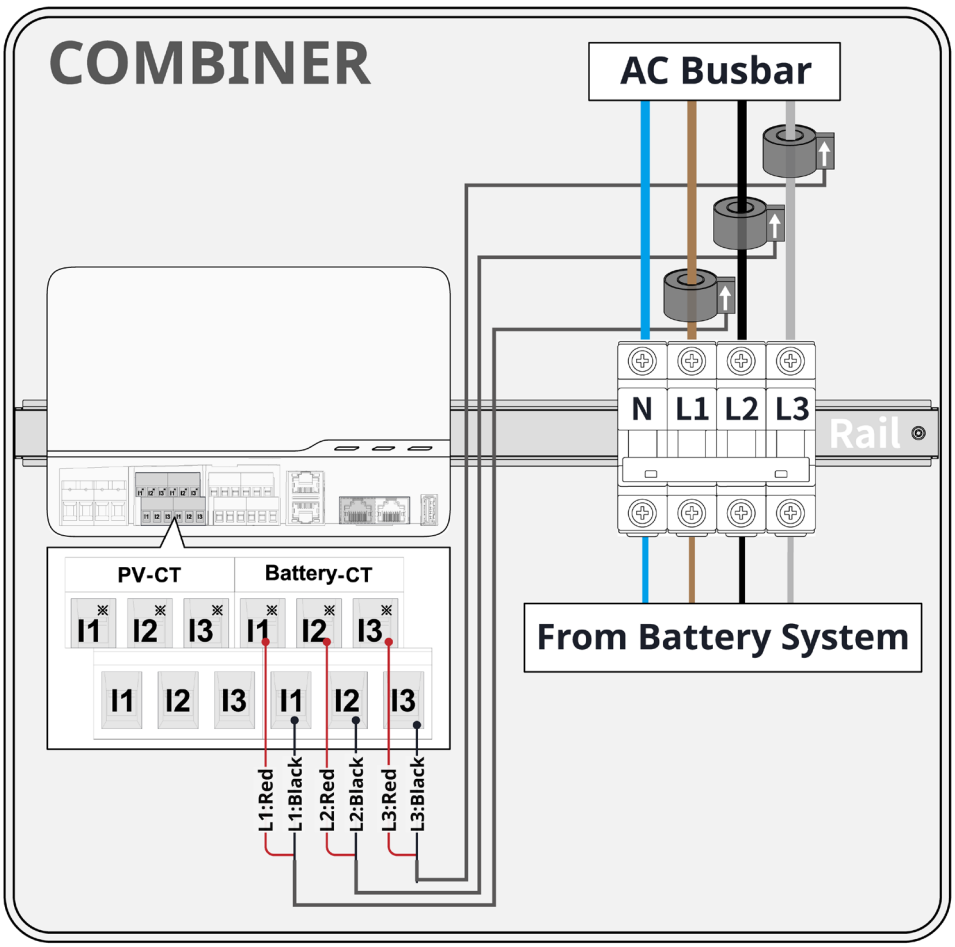
Section B: Connect the PV production CTs

a. Connect the red wire of the CT to the I1* terminal.
b. Connect the black wire of the CT to the I1 terminal.
c. Locate the arrow on the CT label and thread the L1 cable from the PV system into the CT, the arrows on the CTs must point away from the PV system.
d. Connect the red wire of the CT to the I2* terminal.
e. Connect the black wire of the CT to the I2 terminal.
f. Locate the arrow on the CT label and thread the L2 cable from the PV system into the CT, the arrows on the CTs must point away from the PV system.
g. Connect the red wire of the CT to the I3* terminal.
h. Connect the black wire of the CT to the I3 terminal.
i. Locate the arrow on the CT label and thread the L3 cable from the PV system into the CT, the arrows on the CTs must point away from the PV system.
j. Tighten the gateway screws to 0.4 N·m.



Section C: Connect the battery production CTs

a. Connect the red wire of the CT to the I1* terminal.
b. Connect the black wire of the CT to the I1 terminal.
c. Locate the arrow on the CT label and thread the L1 cable from the battery system into the CT, the arrows on the CTs must point away from the battery system.
d. Connect the red wire of the CT to the I2* terminal.
e. Connect the black wire of the CT to the I2 terminal.
f. Locate the arrow on the CT label and thread the L2 cable from the battery system into the CT, the arrows on the CTs must point away from the battery system.
g. Connect the red wire of the CT to the I3* terminal.
h. Connect the black wire of the CT to the I3 terminal.
i. Locate the arrow on the CT label and thread the L3 cable from the battery system into the CT, the arrows on the CTs must point away from the battery system.
j. Tighten the gateway screws to 0.4 N·m.



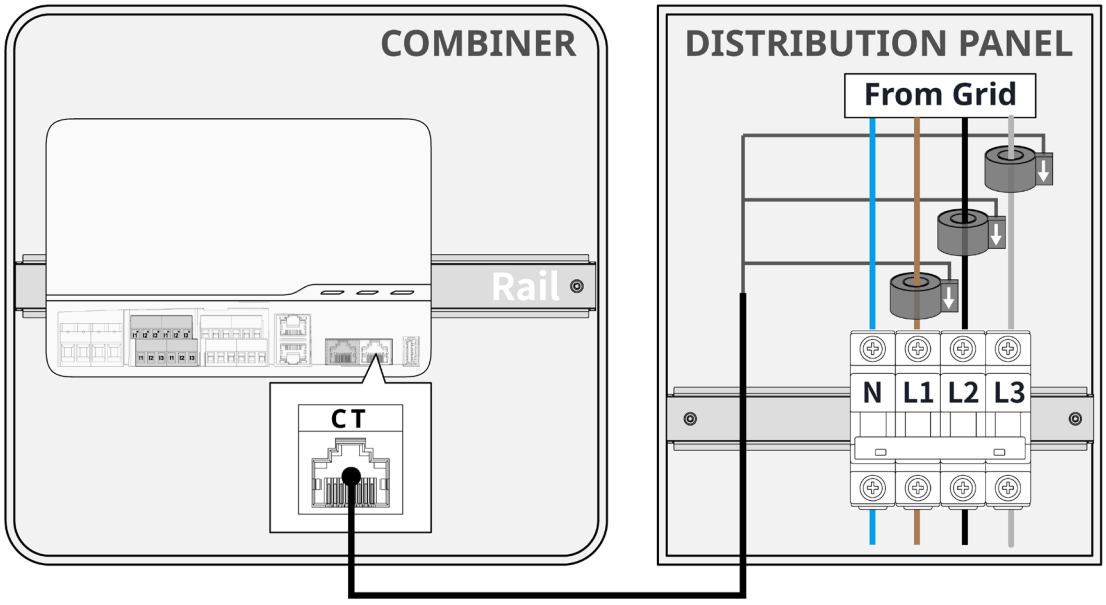
Section D: Connect the consumption CTs

a. Connect the CTs' signal line to the RJ45 terminal as shown below.

b. Remove the L1, L2 and L3 cables of the main breaker in the distribution panel.

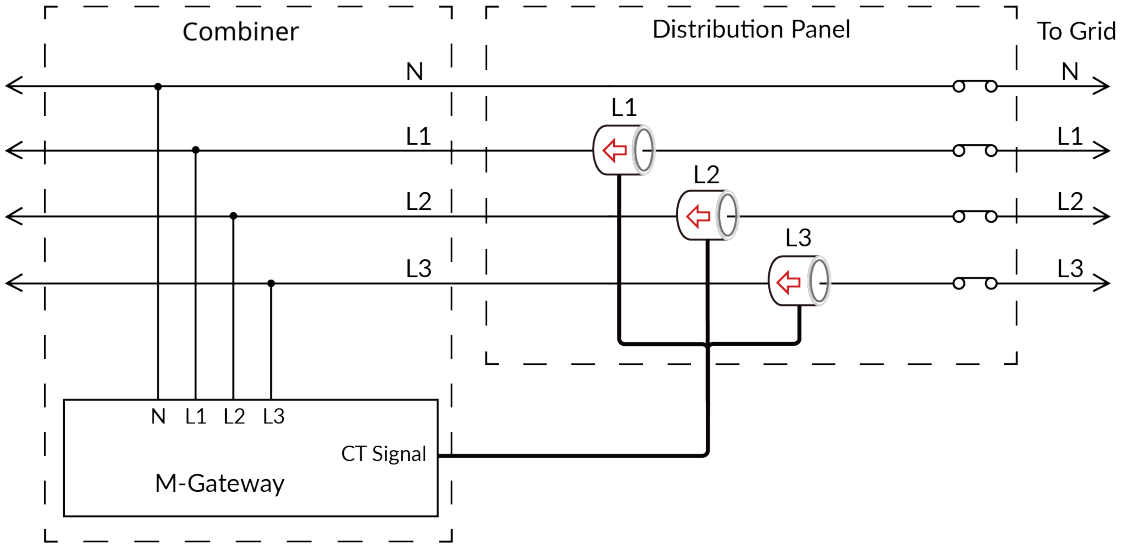
c. Locate the arrow on the CTs' labels and thread the L1, L2 and L3 cables into the CTs with labels "L1," "L2," and "L3," respectively. The CTs' arrows must point away from the grid.

d. Reconnect the L1, L2 and L3 cables to the main breaker and tighten the screws.



NOTE:

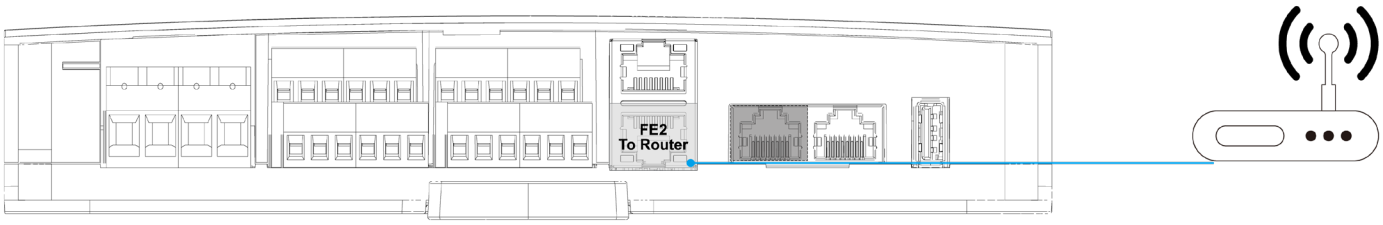
As shown in the system schematic diagram, ensure that the CTs with labels "L1," "L2," and "L3," are installed on the same power line as the L1, L2 and L3 of the breaker in the combiner respectively.



4.6 Optional communication interfaces

4.6.1 Connect the Internet cable

a. When using ETH to connect to Atmoce-Cloud, connect the 802.3 Cat 6 UTP Ethernet cable to the RJ45 terminal in the M-Gateway, as shown in the figure.



4.7 Close the cover

a. Check that the cables are connected correctly and re-install the cover.

4.8 Activate the System

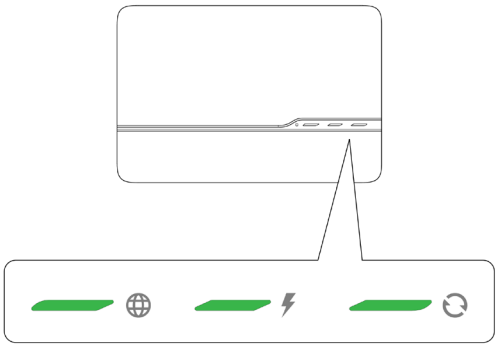
For more information about how to activate the, gateway, refer to ATMOZEN App and ATMOCE Cloud user manual - For installer. The manual will guide you through the following operations:

- How to connect devices to the Atmoce-Cloud.
- How to configure devices and grid profiles.
- How to create on-site installation map on Atmozen.

Troubleshooting

5.1 MG100 LED Indicator Description

a. LED indicators can provide critical information on the operational status of devices. The status of LED indicators helps to solve related problems during on–site installation, configuration and troubleshooting.
b. MG100 has three LED indicators, which are described as follows:

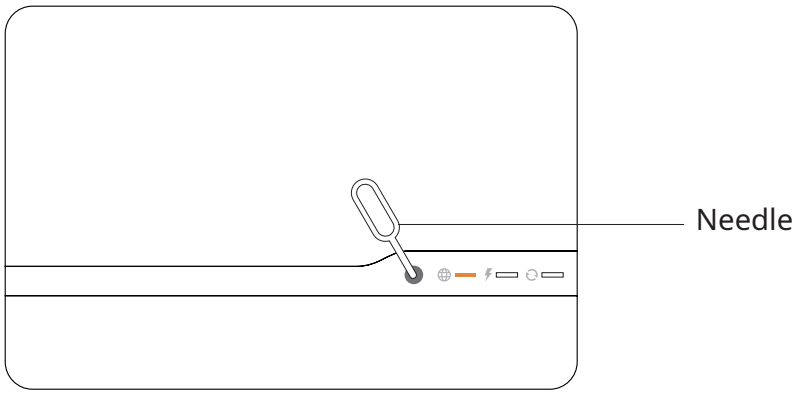


Solid ON
Quick flash: 0.2s ON, 0.2s OFF
Slow flash: 1s ON, 1s OFF
Dimmed

	LED indicator	Colour		Description
	Network Status	Solid Green		Connecting to Atmoce–cloud.
		Quick Flash Green		Connecting to Atmozen app via Bluetooth.
		Slow Flash Red		No network available.
	Microinverter Power Status	Solid Green		All communicating microinverters are generating power.
		Slow Flash Orange		At least one microinverter is not generating power.
		Dimmed		All microinverters are not generating power.
	Microinverter Communication Status	Solid Green		All microinverters are communicating normally.
		Quick Flash Green		The MG100 is detecting microinverters.
		Slow Flash Orange		At least one microinverter is not communicating.
		Slow Flash Red		All microinverters are not communicating (not due to low light or night time).
		Dimmed		All microinverters are not communicating (due to low light or night time).
ALL		Slow Flash Green		Software update is in progress.

5.2 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

5.3 Alarm Codes List

The information about alerted issues of the Atmoce system can be found in the table below:

Code	Issue	Reason	Solution
1	High Direct Current Input Voltage	The open–circuit voltage of the PV module is set to a value higher than the maximum operating voltage of the device.	• Check whether the open–circuit voltage of the PV module is higher than the maximum input voltage of the device specified in the user manual. If so, configure the PV module according to the user manual to ensure that the open–circuit voltage is within the allowed range. Then, the alert will be automatically cleared.
2	Grid Power Outage	Grid power outage occurred.	• Check whether the grid is normally powered. • Check whether the alternating current cable or switch is disconnected.
3	Grid Undervoltage	The grid voltage is lower than the lower limit.	• Check whether the grid voltage is within the allowed range. If not, contact your local electric system operator. If so, modify the grid undervoltage protection threshold after obtaining consent from your local electric system operator. • If the fault persists, check whether the alternating current switch and cable are connected properly.
4	Grid Overvoltage	The grid voltage is higher than the upper limit.	• Check whether the grid voltage is within the allowed range. If not, contact your local electric system operator. If so, modify the grid overvoltage protection threshold after obtaining consent from your local electric system operator. • If the fault persists, check whether the alternating current breaker and cable are connected properly, or whether the cable complies with the recommended specifications.
5	Grid Underfrequency	The grid frequency is lower than the lower limit.	• Check whether the grid frequency is within the allowed range. If not, contact your local electric system operator. If so, modify the grid underfrequency protection threshold after obtaining consent from your local electric system operator.

Code	Issue	Reason	Solution
6	Grid Overfrequency	The grid frequency is higher than the upper limit.	• Check whether the grid frequency is within the allowed range. If not, contact your local electric system operator. If so, modify the grid overfrequency protection threshold after obtaining consent from your local electric system operator.
7	High Output Direct Current Component	The output direct current component is higher than the upper limit.	• The device automatically manages external working conditions in real time and returns to normal after the fault is resolved. • If the fault occurs frequently, contact your Distributor or Customer Service.
8	Low Direct Current–Side Insulation Resistance	The insulation between the PV module and the ground is poor.	• Check the insulation between the PV module and the ground. If there is a short circuit or poor insulation, rectify it.
9	Internal Device Error	The internal circuit of the microinverter failed.	• Wait for the inverter to power on again until the next day. If the fault persists, contact your Distributor or Customer Service.
		The internal circuit of the gateway failed.	• Power off and then repower the gateway by using the grid breaker inside the Combiner. If the fault persists, contact your Distributor or Customer Service.
		The internal circuit of the M–Relay failed.	• Power off and then repower the generation system by using the breaker inside the Combiner. If the fault persists, contact your Distributor or Customer Service.
		The M–Relay is disconnected from the gateway.	• Check whether the indicator of the M–Relay flashes in red or is off. If so, contact your Distributor or Customer Service. • Power off and then repower the gateway by using the grid breaker inside the Combiner. If the fault persists, contact your Distributor or Customer Service.
10	Active Device Protection	The operating environment of the inverter is abnormal.	• The device automatically checks external working conditions and returns to normal after the fault is resolved. • If the alert is reported frequently, contact your Distributor or Customer Service.

Code	Issue	Reason	Solution
256	Abnormal Communication Between Gateway and Device	• The device is shut down. • The AC cable between the microinverter and gateway is abnormal.	• Check whether the AC switch is disconnected. If the AC switch is disconnected, close the AC switch. • Wait for the inverter to be powered on again the next day and confirm the communication status. If the fault still exists, check whether the AC line is disconnected and whether the AC wiring and mating terminals are abnormal.
257	Abnormal Communication Between Gateway and Atmoce–Cloud	• The gateway is shut down. • The gateway network is improperly configured. • The network between the gateway and Atmoce–Cloud is abnormal.	• Observe the indicator of the gateway to check whether it is shut down. • Check whether the router is connected to the Internet. • If the gateway is connected to the Internet via Wi–Fi: 1. Check whether the Wi–Fi name and password are changed. 2. Check whether Wi–Fi signals are strong. • If the gateway is connected to the Internet via a network cable: 1. Check whether the router network and cable are normal. 2. DHCP mode: Check whether DHCP mode is enabled for the router. 3. Manual mode: Check whether the IP address, gateway, and DNS are properly configured for the router.
258	Upgrade Failure	• Microinverter upgrade failed. • M–Relay upgrade failed. • Gateway upgrade failed.	• Try to upgrade again. If the fault persists, contact your Distributor or Customer Service.

Maintenance

6.1 Remove M-Gateway

If, after the above troubleshooting, the M–Gateway still does not operate normally, please contact Atmoce Technical Support. If the warranty conditions are met, the M–Gateway can be removed and replaced.

The removement procedure is as follows:

a. Disconnect the main circuit breaker in the distribution panel.
b. Remove the cover of the M-Gateway.
c. Remove the power and communication cables in the M-Gateway.
d. Remove the M-Gateway from the combiner.

6.2 Replace M-Gateway

If, after the above troubleshooting, the M-Gateway still does not operate normally, please contact Atmoce Technical Support. If the warranty conditions are met, the M-Gateway can be removed and replaced.

The replacement procedure is as follows:

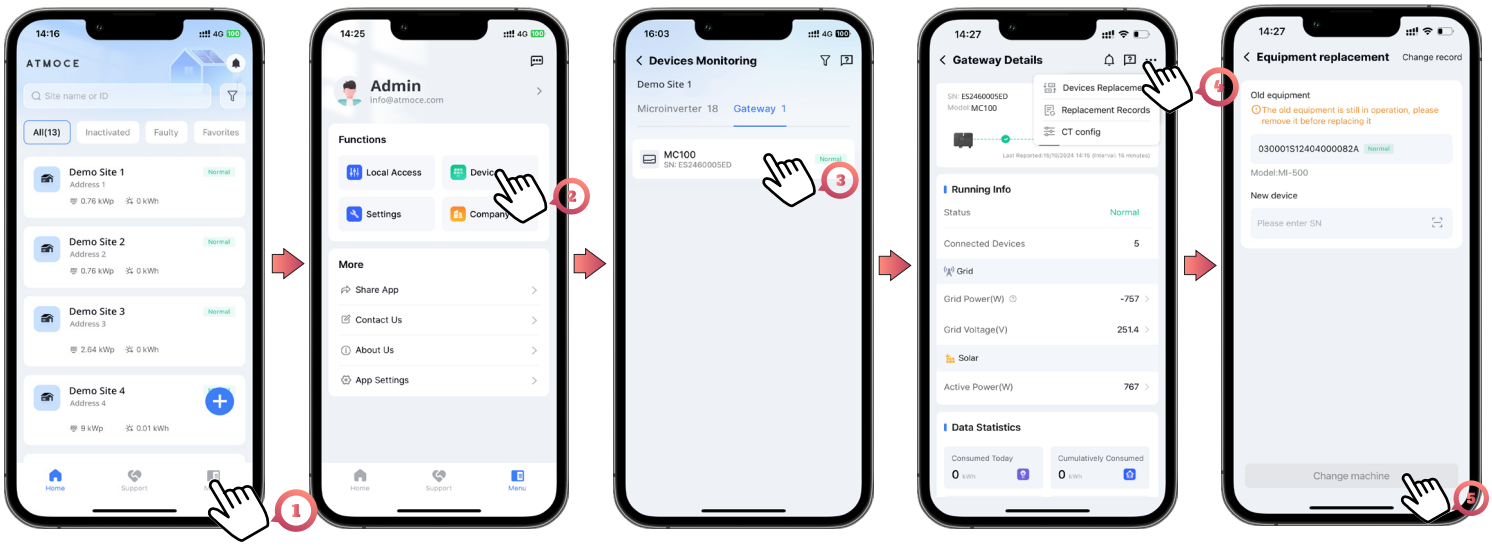
a. Remove the M-Gateway (refer to the "Remove M-Gateway" section).

b. Secure the replaced M-Gateway (refer to the "Installation" section).

c. Turn on the circuit breakers in the distribution panel.

d. Retrieve the serial number of the removed gateway from the device list in the Atmozen app and replace the device. Specifically, perform the following steps:

- Tap **Menu – Devices**.
- Select the replaced device to check the details.
- Tap **Replacement** – Enter the SN of new device.



e. Check the operating status and the device information of the device in the Atmozen app to confirm that the new gateway is operating normally.

NOTE:

- If both the gateway and the microinverter need to be replaced, the gateway must be replaced first.

Technical Data

7.1 MG100 Data Sheet

Items		Unit	MG100	
Electrical parameters				
Grid setup			Single-phase	Three-phase
Nominal voltage		V	220/230/240	220/380 Va.c., 230/400 Va.c., 3/N~
Nominal operating voltage range (L to N)		V	184 to 276	
Nominal frequency		Hz	50/60	
Extended frequency range		Hz	45 to 65	
Power consumption		W	<5 (without USB device) < 20 (with USB device)	
Overvoltage category			III	
AC surge protection			TYPE II	
Mechanical parameters				
Dimensions (W x H x D)		mm	221 × 148 × 42	
Weight		kg	0.6	
Ambient temperature range		°C	-30 to 65	
Cooling			Natural convection	
Enclosure environmental rating			IP30	
Communication			PLC, Wi-Fi, BLE, ETH, CAN, RS485	
Noise		dB	<25	
Altitude		m	3000	
Protection class			II	
Pollution degree			II	
Communication interfaces				
PV side	PLC		Support	
	Microinverter CT		1 × CT interface	3 × CT interfaces
Grid side	Comsumption CT		1 × CT interface	
Battery side	CAN		Support	
	Battery CT		1 × CT interface	3 × CT interfaces
Load side	ETH		1 × interface, 100 Mb/10 Mb auto-adaptability	
	Digital I/O		4 × 12V DO, 3 × DI	
	RS485		Support	
M-Relay	RS485		Support	
Atmoce-Cloud	Wi-Fi		2.4 GHz	
	ETH		1 × interface, 100 Mb/10 Mb auto-adaptability	
Atmozen app	BLE		2.4 GHz	
Indicators			3 × LEDs	

Compliance	
Safety	IEC 61439-1/-2
Health	EN IEC 62311
EMC	EN 301 489-1/-17, EN IEC 61000-1/-2/-3/-4
Radio spectrum	EN 300 328
PLC	EN 50065-1/-2

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