



MA-ESSKits Quick Installation Guide

Applicable model: MA-ESSKits-T



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ATMOZEN APP

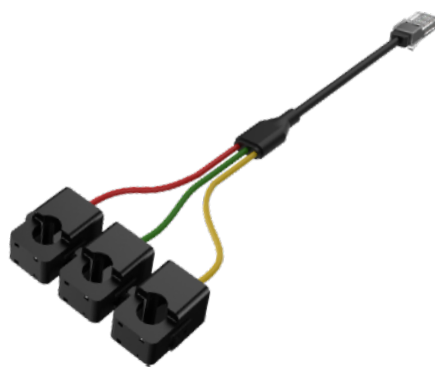
ATMOCE System Introduction

MA-ESSKits are intelligent kits for PV + battery solutions that work with third-party PV inverters and ATMOCE batteries. The M-Gateway (MG100) manages system performance and devices, and communicates with the ATMOCE-Cloud and ATMOZEN app to give users visibility into their home's energy production and consumption.

Pre-installation

a. What's in the MA-ESSKits-T

The complete MA-ESSKits-T should include the following items:



Item	M-Gateway	80A Split-core CTs	CT cable adaptor
Quantity	1	3	2

b. Check the grid voltage

The MA-ESSKits-T should connect to a three-phase grid. Measure the AC voltage at the point of connection to confirm that it is within the range.

Phase setup		Voltage range
Three-phase	L1, L2, L3 to N	184 to 276 Vac

c. 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.

Item		Voltage range
Power	Power cable	1 to 2.5 mm ² , 4-core
	CAN cable	0.25 to 0.75 mm ² , 3-core
Communication	ETH cable	802.3, Cat 6 UTP ethernet cable

d. Prepare the tools and materials

Tools: screwdriver, wire stripper, wire crimper, diagonal cutter, torque wrench, etc.

Materials: cold-press terminal, tie wrap, etc.

e. Select how the device connects to the Internet

You can connect the gateway to the Internet through Wi-Fi and Ethernet.

- Ethernet connection: please use 802.3, Cat 6 UTP ethernet cable.
- Wi-Fi connection: install the gateway within 10 meters from the router to ensure stable Wi-Fi signal.

f. Download the ATMOZEN app

You can download the app from Google Play or Apple App Store.

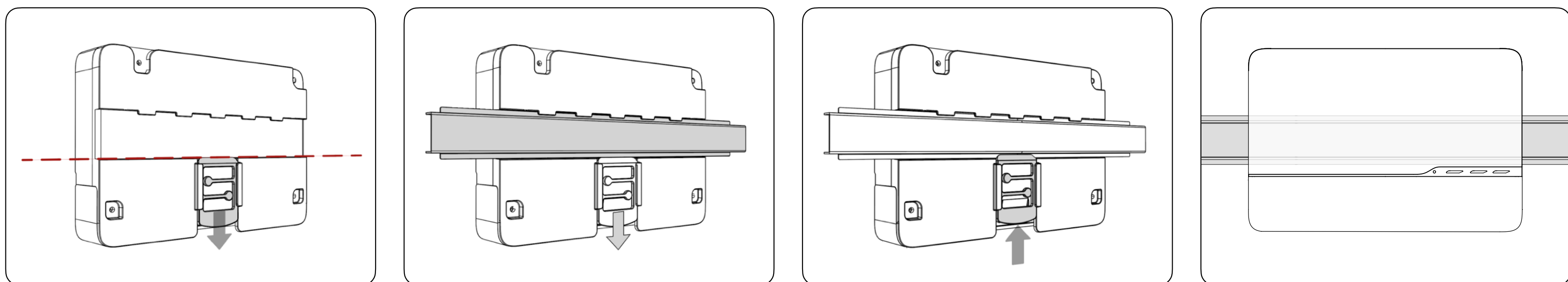
NOTE:

- When stripping the cable, remove approximately 12 mm of the insulation layer from the power cable and 8 mm of insulation layer from the communication cable.

Installation

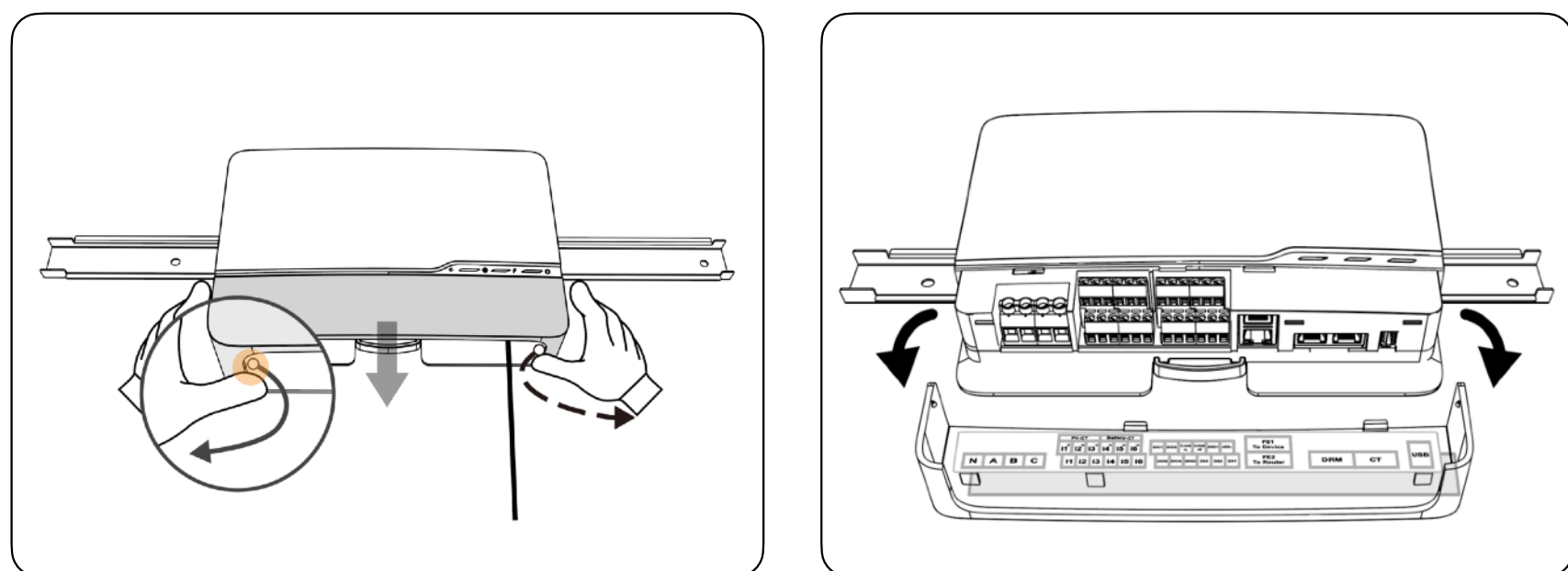
1. Mount the M-Gateway

- Pull down the securing clip on the M-Gateway.
- Align the M-Gateway with the 35mm punched DIN rail.
- Release the securing clip.



2. Remove the Cover

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



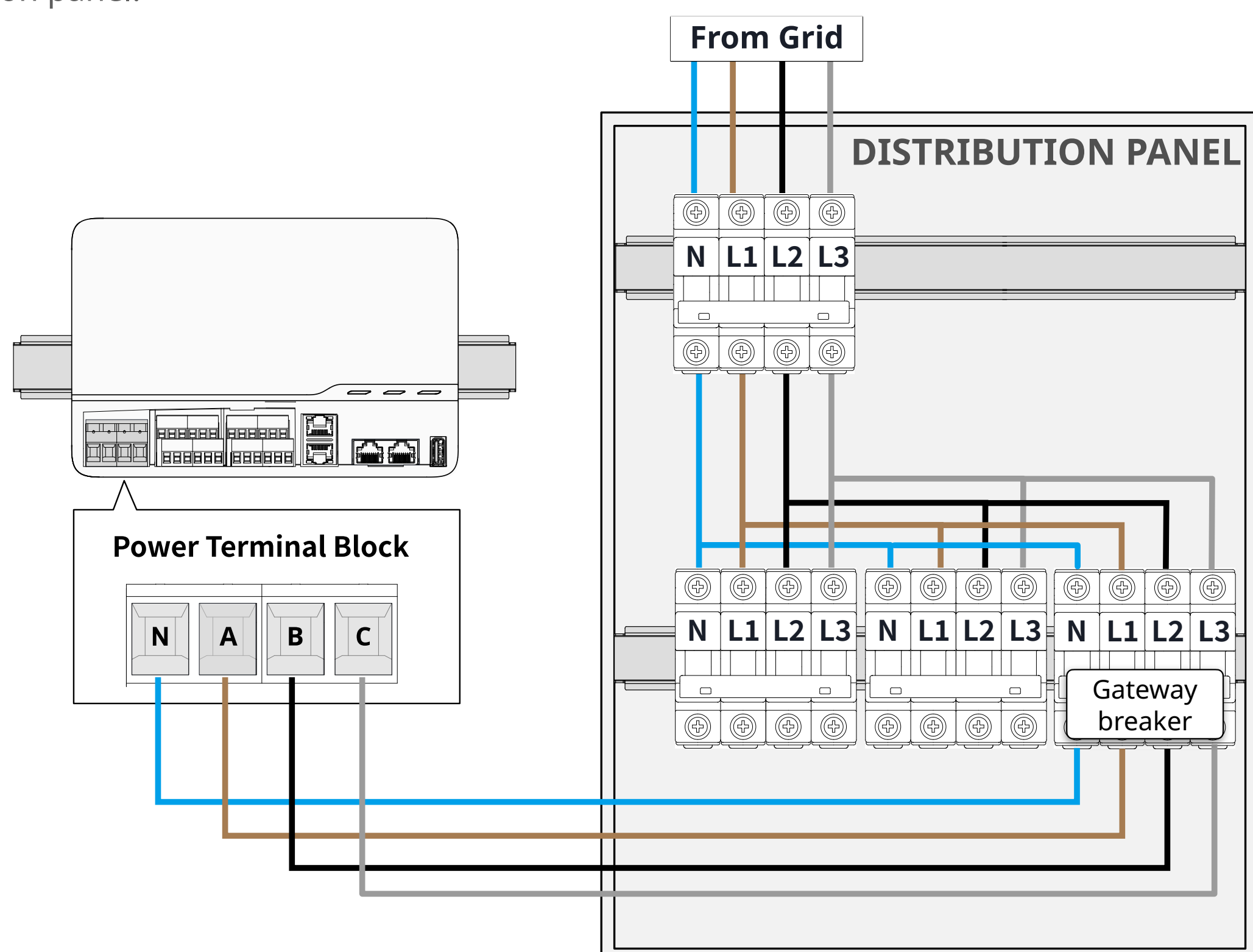
3. Connect the Cables

3.1. Connect the power cables to power terminal block

- Connect Terminal N to phase N inside the distribution panel.
- Connect Terminal A to phase L1 inside the distribution panel.
- Connect Terminal B to phase L2 inside the distribution panel.
- Connect Terminal C to phase L3 inside the distribution panel.
- Tighten the gateway screws to 0.4 N·m.

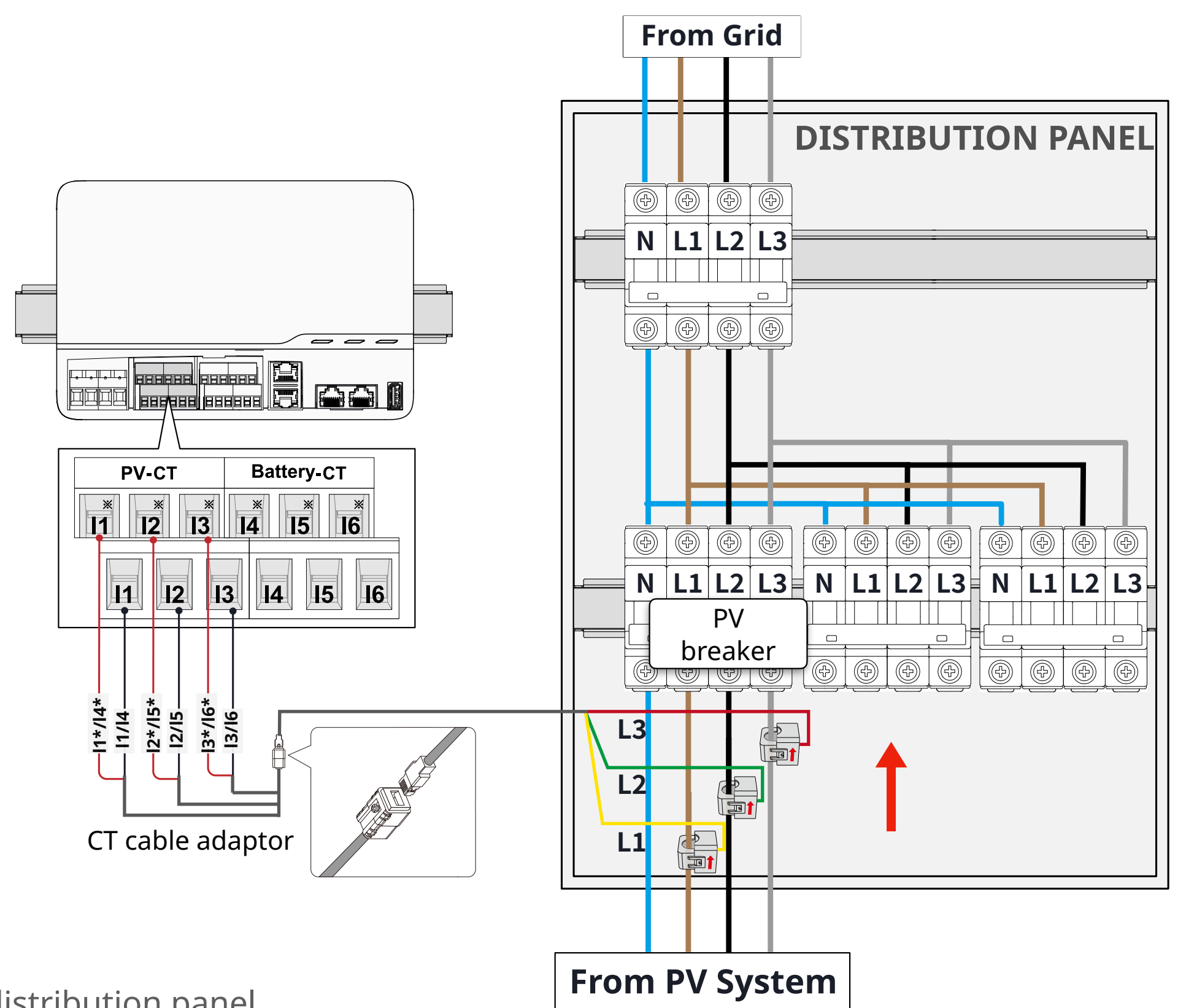
NOTE:

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



3.2 Connect the PV CTs

- Connect the cable with "I1*/I4*" to the I1* terminal and connect the cable with "I1/I4" to the I1 terminal.
- Connect the cable with "I2*/I5*" to the I2* terminal and connect the cable with "I2/I5" to the I2 terminal.
- Connect the cable with "I3*/I6*" to the I3* terminal and connect the cable with "I3/I6" to the I3 terminal.
- Tighten the gateway screws to 0.4 N·m.
- Connect the signal cable of the CTs to the CT cable adaptor.
- Locate the arrow on the CTs' labels and clamp the CTs with labels "L1," "L2," and "L3," on the L1, L2 and L3 cables respectively. The CTs' arrows must point away from the PV system.

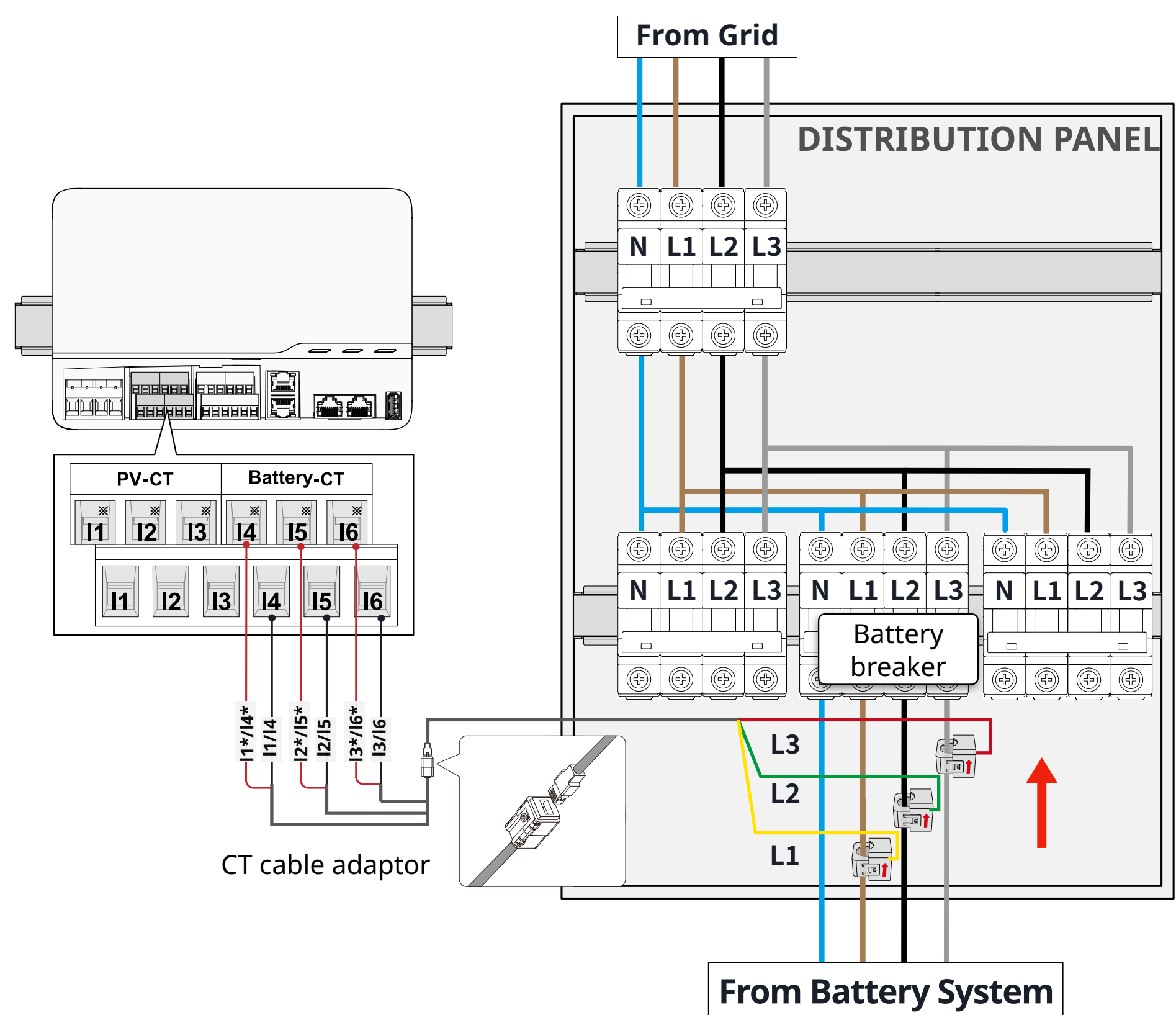


NOTE:

- The PV CTs must connect to the CT cable adaptor.
- The arrow on the CT must point from the PV system to the distribution panel.

3.3 Connect the battery CTs

- Connect the cable with "I1*/I4*" to the I4* terminal and connect the cable with "I1/I4" to the I4 terminal.
- Connect the cable with "I2*/I5*" to the I5* terminal and connect the cable with "I2/I5" to the I5 terminal.
- Connect the cable with "I3*/I6*" to the I6* terminal and connect the cable with "I3/I6" to the I6 terminal.
- Tighten the gateway screws to 0.4 N·m.
- Connect the signal cable of the CTs to the CT cable adaptor.
- Locate the arrow on the CTs' labels and clamp the CTs with labels "L1," "L2," and "L3," on the L1, L2 and L3 cables respectively. The CTs' arrows must point away from the battery system.



NOTE:

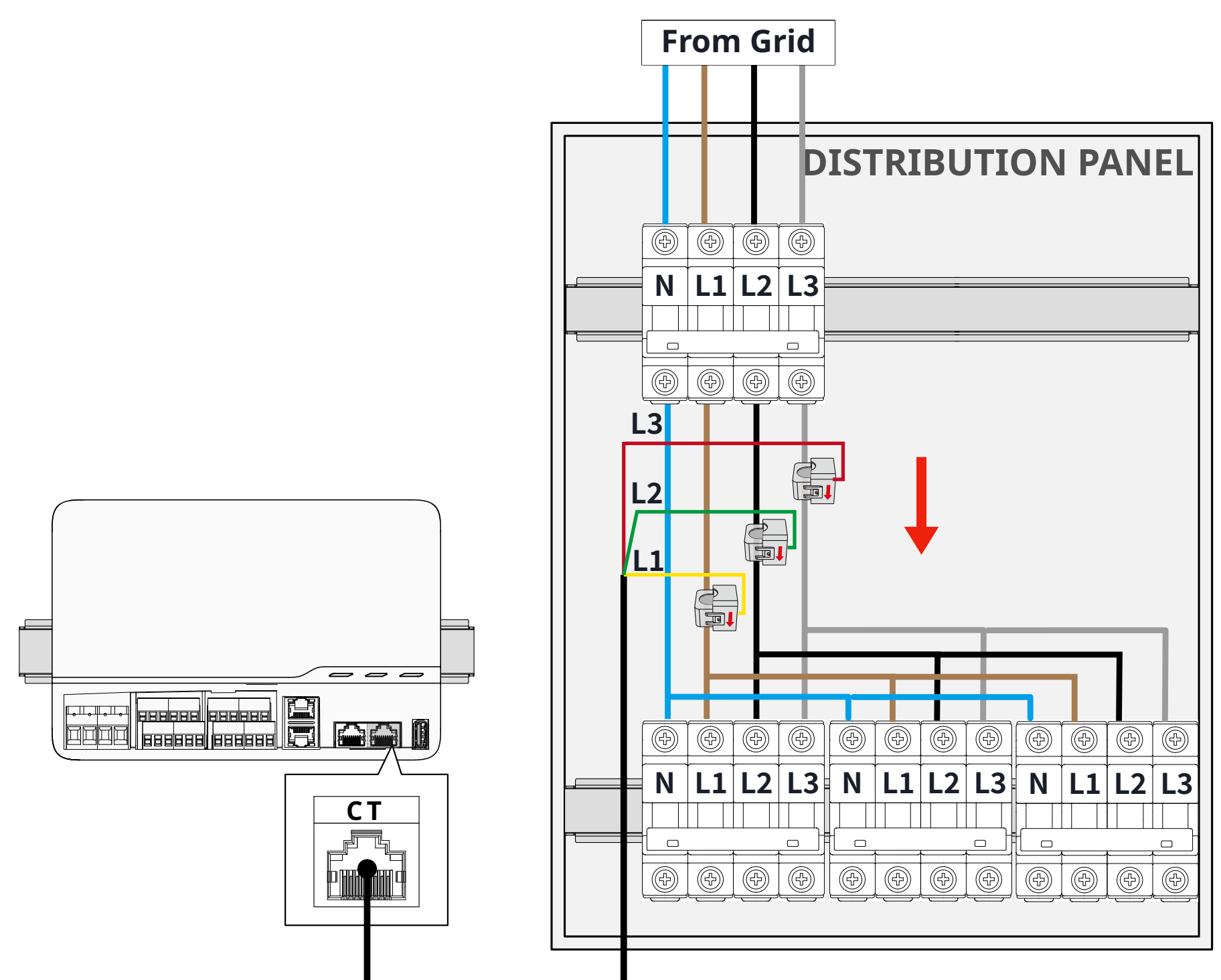
- The battery CTs must connect to the CT cable adaptor.
- The arrow on the CT must point from the battery system to the distribution panel.

3.4 Connect the consumption CTs

- Connect the CTs' signal cable to the RJ45 terminal of the gateway.
- Locate the arrow on the CTs' labels and clamp the CTs with labels "L1," "L2," and "L3," to the L1, L2 and L3 cables respectively. The CTs' arrows must point away from the grid.

NOTE:

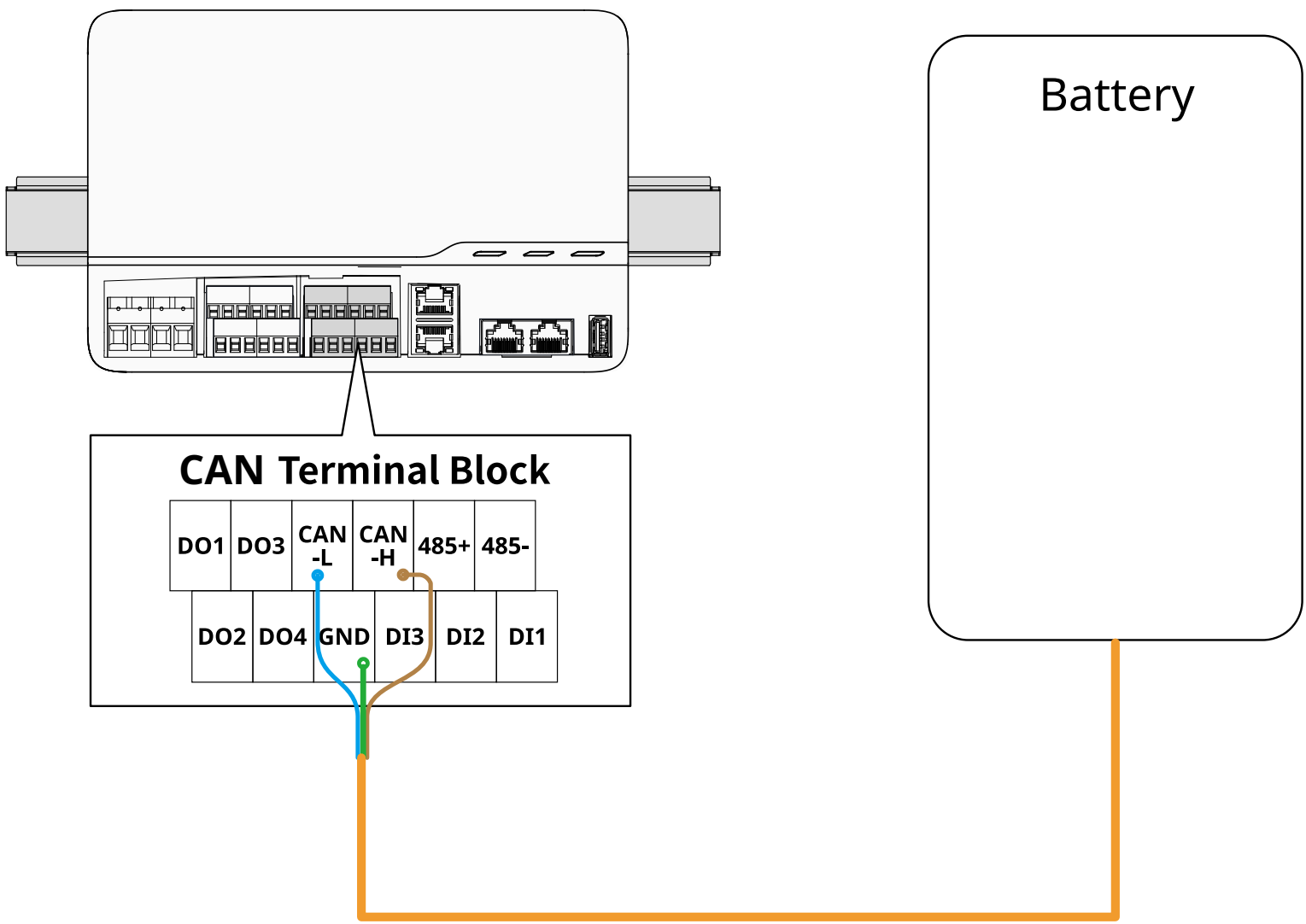
- The arrow on the CT must point from the grid to the distribution panel.



4. Communication Interfaces

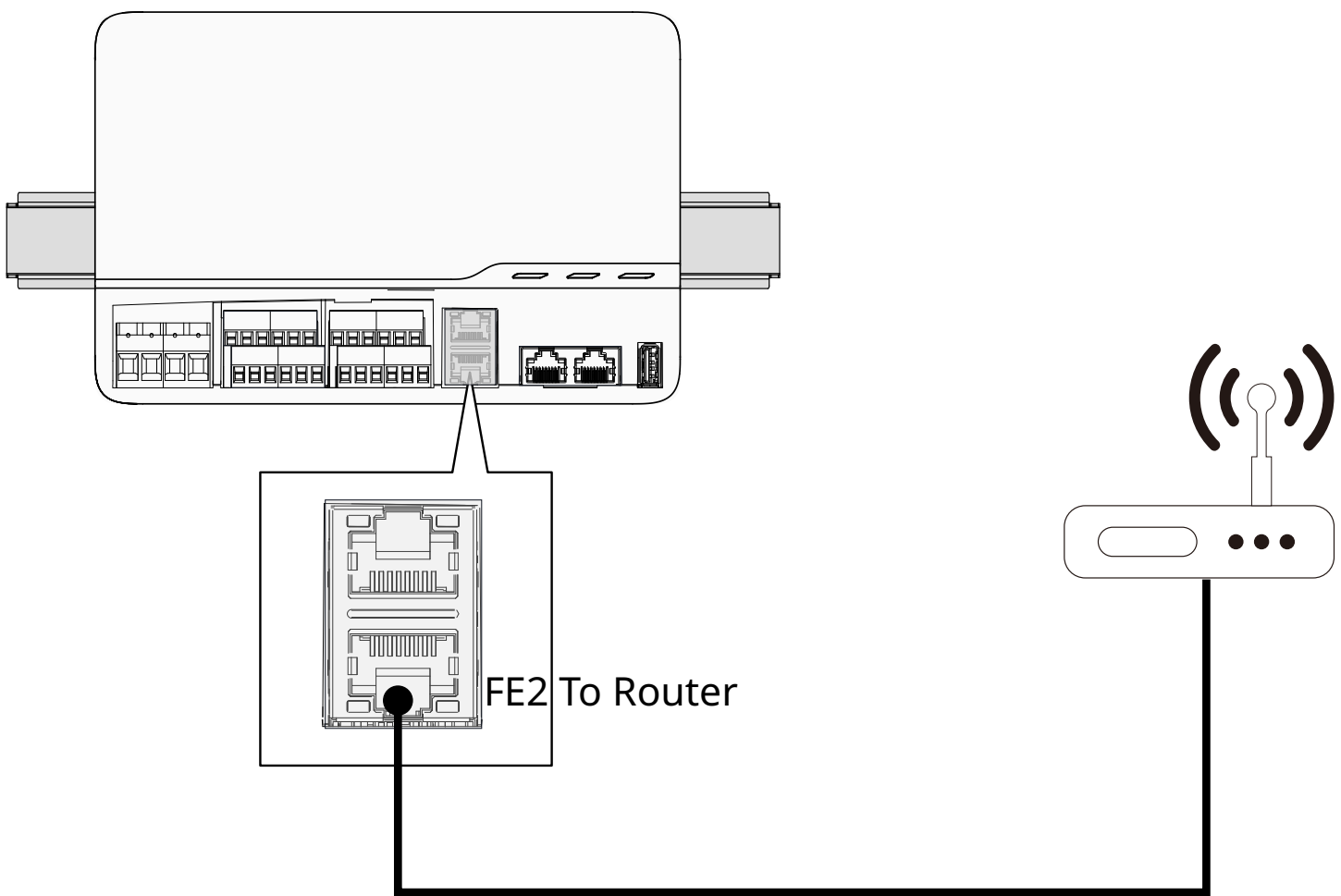
4.1 Connect the CAN cable

- a. Connect the CAN cable to the communication terminal as the label.



4.2 (Optional) Connect the ethernet 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.



5. Close the Cover

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

6. Activate the System

- a. Log in to the ATMOZEN app on your mobile phone and follow the deployment guide in the app to activate the system.
- b. After the system is activated, all LEDs will be solid green.