



Scan QR code to download APP

1. Safety Instructions

| Labels | Description |
|--------|---|
| | Caution, risk of electric shock. |
| | Symbol for the marking of electrical and electronics devices according to Directive 2002/96/EC. Indicates that the device, accessories and the packaging must not be disposed as unsorted municipal waste and must be collected separately at the end of the usage. Please follow Local Ordinances or Regulations for disposal or contact an authorized representative of the manufacturer for information concerning the decommissioning of equipment. |
| | CE mark is attached to the solar inverter to verify that the unit follows the provisions of the European Low Voltage and EMC Directives. |
| | Refer to the operating instructions |
| | Person adequately advised or supervised by an electrically skilled person to enable him or her to perceive risks and to avoid hazards which electricity can create. For the purpose of the safety information of this manual, a "qualified person" is someone who is familiar with requirements for safety, refrigeration system and EMC and is authorized to energize, ground, and tag equipment, systems, and circuits in accordance with established safety procedures. The inverter and endues system may only be commissioned and operated by qualified personnel. |

2. Unboxing

Standard

- Smart Meter *1
- Current Transformer (CT) *1
- Quick Start Guide

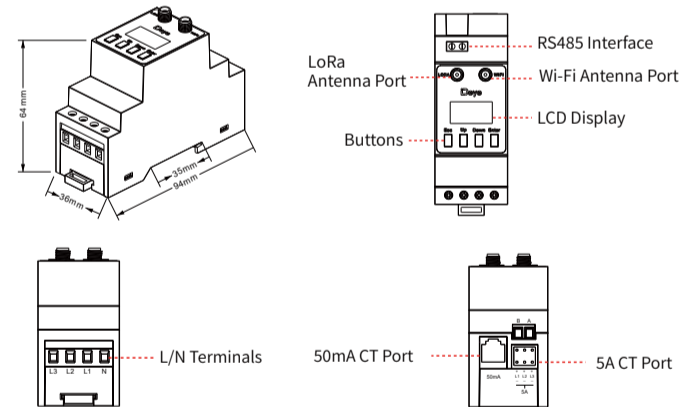
Standard for Wi-Fi/LoRa Model

- Wi-Fi Antenna *1 (For Wi-Fi model only)
- LoRa Antenna *1 (For LoRa model only)

Optional for Wi-Fi/LoRa Model

- Extension Wi-Fi Antenna (Optional 3/5/10 m Cable) *1
- Extension LoRa Antenna (1m Cable) *1

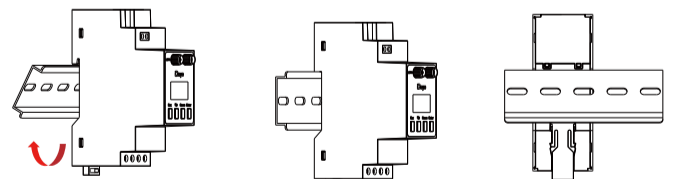
3. Overview



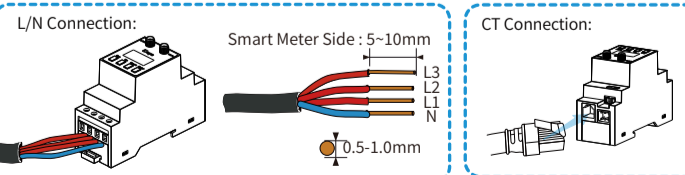
4. Installation

⚠️ Ensure the power is off during electrical connections.
⚠️ Secure all connections properly to avoid electrical faults or device malfunction.

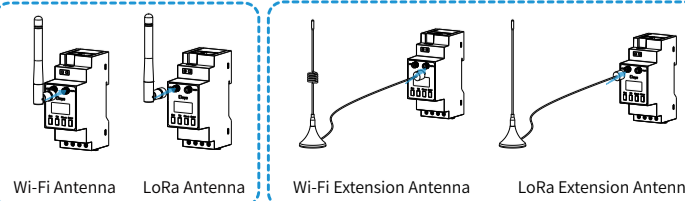
① Pull out the clip, mount the smart meter onto the DIN rail, then push the clip back to secure it.



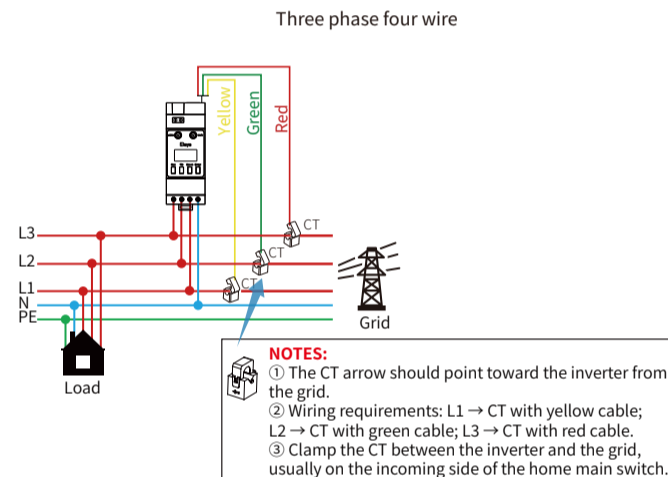
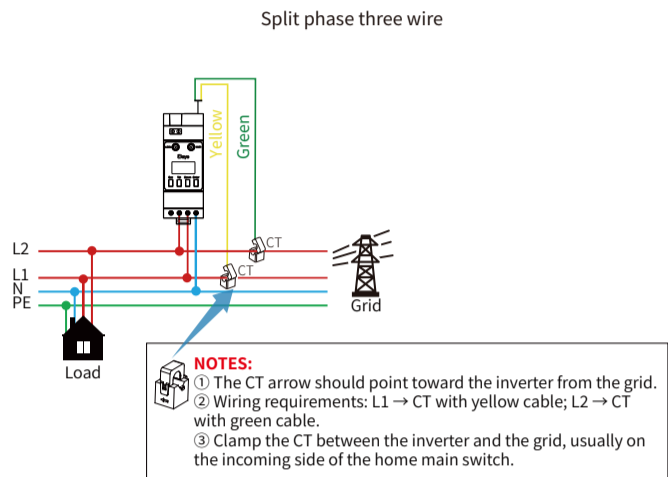
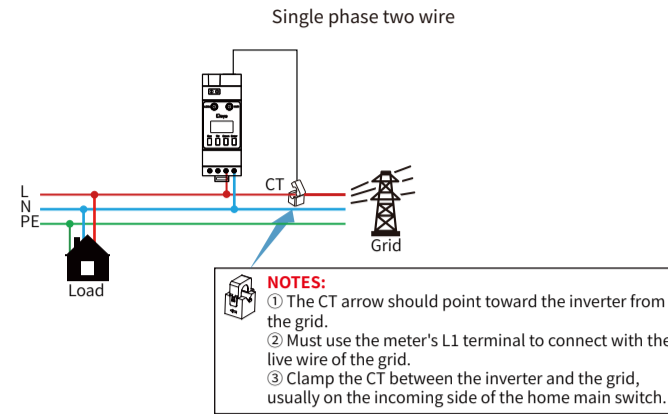
② Connect the smart meter to the grid, making sure to connect to the correct L and N wires.
 ③ Insert the CT lead wire into the CT port on the smart meter, and clamp the CT around the corresponding live wire.



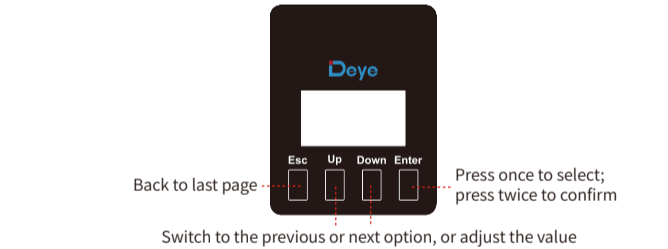
④ Tighten the antenna or extension antenna to the antenna port and keep the antenna upright to ensure proper signal reception.



⑤ Wiring diagrams are shown below:



5. Display



① Data display

| Screen Display | Description |
|--|--|
| P L1: 0W L2: 0W L3: 0W | Displays the power of each phase. |
| Frequency F: 50.0Hz | Displays the measured frequency. |
| Energy-In L1: 0.00kWh L2: 0.00kWh L3: 0.00kWh | Displays the input energy of each phase of the inverter. |
| Energy-Out L1: 0.00kWh L2: 0.53kWh L3: 1.12kWh | Displays the output energy of each phase of the inverter. |
| PF L1: 0.000 L2: 0.000 L3: 0.000 | Displays the power factor of each phase of the inverter. |
| Q L1: 0.00Uar L2: 0.00Uar L3: 0.00Uar | Displays the reactive power of each phase of the inverter. |
| I L1: 0.00A L2: 0.00A L3: 0.00A | Displays the current of each phase of the inverter. |
| U L1: 229.7V L2: 231.0V L3: 230.8V | Displays the phase-to-neutral voltage of each phase of the inverter. |

② Information

| Screen Display | Description |
|----------------|------------------|
| Information << | SN:C26101A9A9 |
| Dev Info << | AP:CT_1226520214 |
| Fault Record | Soft Ver:C32F |
| Param Setting | Lora Channel:06 |

Displays the serial number, AP address, firmware version, and LoRa communication channel.

③ Device information

| Screen Display | Description |
|----------------|-------------|
| Information | Link:N C |
| Dev Info << | AP_Number:0 |
| Fault Record | |
| Param Setting | |

"N-N": The meter is not connected to the inverter.
 "N-C": The meter is connected to the inverter via wireless communication.
 "C-N": The meter is connected to the inverter via RS485 wired communication.
AP number indicates how many devices are connected to the meter.

④ Fault Record

| Screen Display | Description |
|-----------------|----------------|
| Information | |
| Dev Info | no information |
| Fault Record << | please return |
| Param Setting | |

Fault information will be displayed if a fault occurs.

⑤ Parameter Setting

| Screen Display | Description |
|------------------|----------------|
| Information | |
| Dev Info | |
| Fault Record | |
| Param Setting << | |
| NRG OUT Reset << | |
| NRG IN Reset | start of init |
| Addr setting | |
| Baud setting | |
| NRG OUT Reset | |
| NRG IN Reset << | start of init |
| Addr setting | |
| Baud setting | |
| NRG OUT Reset | Addr num:0x01 |
| NRG IN Reset | |
| Addr setting << | |
| Baud setting | |
| NRG OUT Reset | Baud Rate |
| NRG IN Reset | 9600 |
| Addr setting | |
| Baud setting << | |
| Addr setting | Com Chan:06 << |
| Baud setting | Upg Chan:06 |
| Lora Channel << | Scan Chan |
| CT Ratio set | |
| Addr setting | Ratio: 2000:1 |
| Baud setting | |
| Lora Channel | |
| CT Ratio set << | |
| Lora Channel | Enable << |
| CT Ratio set | Disable |
| T1 Mode << | |
| CT Type | |
| Lora Channel | 50 mA << |
| CT Ratio set | 5 A |
| T1 Mode | |
| CT Type << | |

Press the "Enter" button twice to reset "Energy_Out" data.
 Press the "Enter" button twice to reset "Energy_In" data.
 RS485 communication address. Default value: 0x01; range: 0x01-0xFF.
 Communication baud rate. Default value: 9600; available options: 9600 / 14400 / 19200 / 38400 / 56000 / 57600 / 115200
 Select "Scan Chan" to scan channels 01-09 to locate the transmitter's communication channel. If detected, the channel number will be displayed. If not detected, "Not detected" will be shown.
 CT ratio setting. Range: 2000:1 to 10000:1; adjustment step: 100.
 CT power transmission mode. When enabled, the power of three phases (L1, L2, L3) is transmitted to the inverter LCD. The inverter LCD displays the total power on L1 only. This mode is mainly used when loads are connected.
 CT type selection. Select the appropriate CT type according to the measuring range.

6. Setup

① RS485 wired communication

Definition of RJ45 Port pin for Meter-485

| No. | Meter-485 Pin |
|-----|---------------|
| 1 | 485-B |
| 2 | 485-A |
| 3 | COM-GND |
| 4 | 485-B |
| 5 | 485-A |
| 6 | COM-GND |
| 7 | 485-A |
| 8 | 485-B |

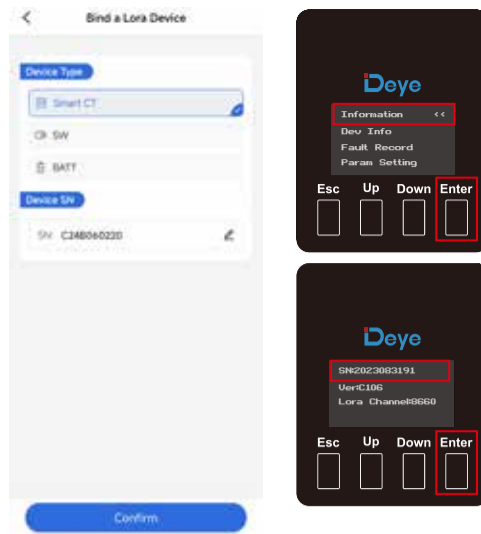
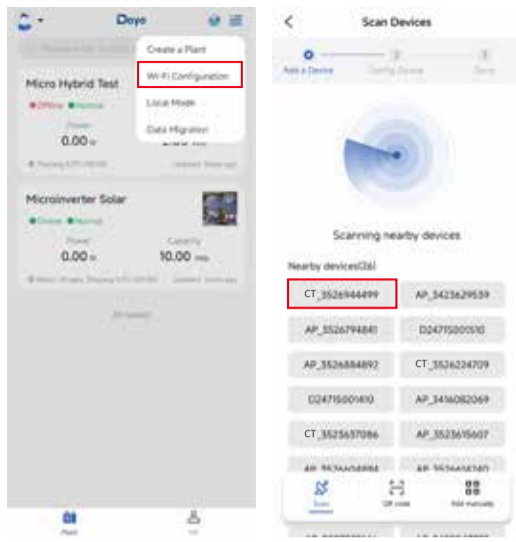
Note: ① The definition of meter-485 port (Please refer to the user manual of your inverter)
 ② Please set the communication address and baud rate under parameter setting.

② Wi-Fi wireless communication

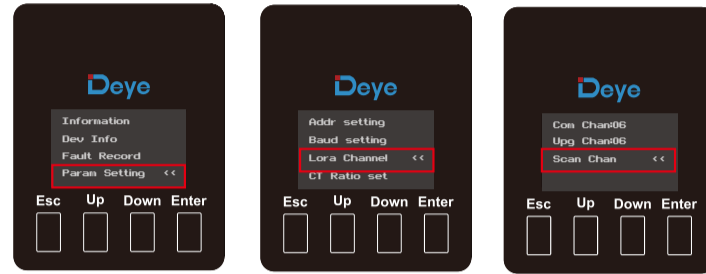
Step 1. Scan the QR code in the upper-right corner to download and install the app. Register an account and create a plant.

Step 2. Wi-Fi communication

A. Enable Bluetooth and connect the smart meter to a Wi-Fi network. If required, enter the meter Wi-Fi SN to bind it to the inverter.



B. Perform a channel scan on the meter to establish LoRa communication with the inverter.



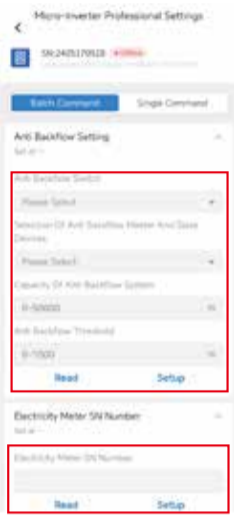
NOTES:

1. If you are not using the default 100A/50mA current transformer (CT), set the CT ratio under Parameter Setting.
2. For detailed wireless system setup instructions, refer to the inverter user manual. Configuration steps may vary depending on the inverter type. The above steps are for reference only.

7. Datasheet

| Model | SUN-SMART-CT02 |
|------------------------------------|--|
| Electrical Parameters | |
| Connection Type | L1/N (Single phase); L1/L2/L3/N (Three phase) |
| CT (Rated Secondary Output) | 50mA/5A |
| Voltage Range | 85~300V a.c. (Phase voltage) |
| Frequency & Range | 50Hz (45Hz-55Hz) / 60Hz (55Hz-65Hz) |
| Power Consumption | ≤2W |
| AC Withstand Voltage | 4KV / 1min |
| Measurement Accuracy | |
| Voltage | ±0.1V |
| Current | ±0.01A |
| Frequency | ±0.01Hz |
| Power | ±1W |
| Communication & Display | |
| Communication Interface | RS485 |
| LoRa Communication Distance | / |
| Display Type | LCD |
| Displayed Parameters | Voltage, Current, Power, Frequency, Power Factor, Reactive Power, Energy |
| General Parameters | |
| Operating Temperature Range | -40~+60°C |
| Permissible Ambient Humidity | 0~75% |
| Ingress Protection | IP20 |
| Maximum Operating Altitude | ≤4000 |
| Mounting Method | DIN-rail mounting |
| Dimensions (W × H × D) | 36*94*64mm |
| Weight | 0.12kg |
| Warranty | 5 years |
| Standards | IEC/EN 61010-1 |
| LoRa Parameters | |
| Frequency Band | / |
| Antenna | / |
| Antenna Gain | / |
| WiFi Parameters | |
| Frequency Band | / |
| Antenna | / |

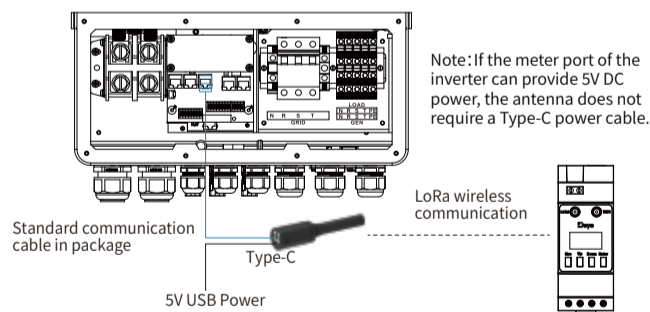
B. Go to the "Device" page, select "Meter", and you can check the meter's information.



WiFi SN:
1226270190
PWD:
8ed242c7



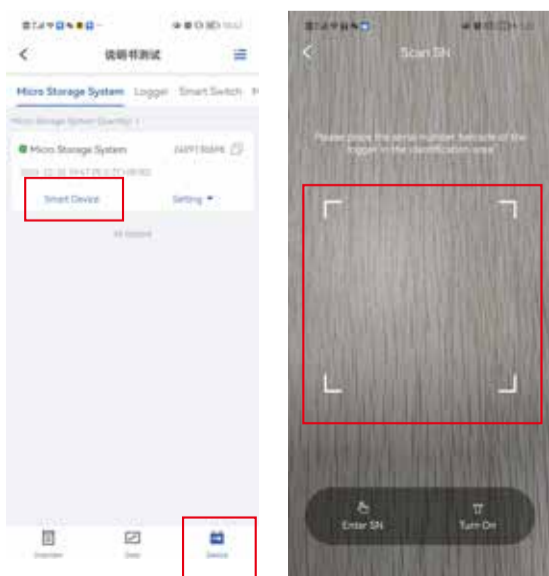
③ LoRa wireless communication



Step 1. Scan the QR code in the upper-right corner to download and install the app. Register an account and create a plant.

Step 2. LoRa communication

A. Add a new device by scanning the QR code on the device or by manually entering its SN.



8. EU Declaration of Conformity



- within the scope of the EU directives
- Radio Equipment Directive 2014/53/EU (RED)
- Restriction of the use of certain hazardous substances 2011/65/EU (RoHS)

NINGBO DEYE INVERTER TECHNOLOGY CO., LTD. confirms herewith that the products described in this document are in compliance with the fundamental requirements and other relevant provisions of the above mentioned directives. The entire EU Declaration of Conformity and certificate can be found at <https://www.deyeinverter.com/download/#smart-load>.

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