

# Sigen Sensor (TP-CT100-WI, TP-CT300-WI, TP-CT600-WI) Installation Guide



Version: 02  
Release date: 2026-05-09

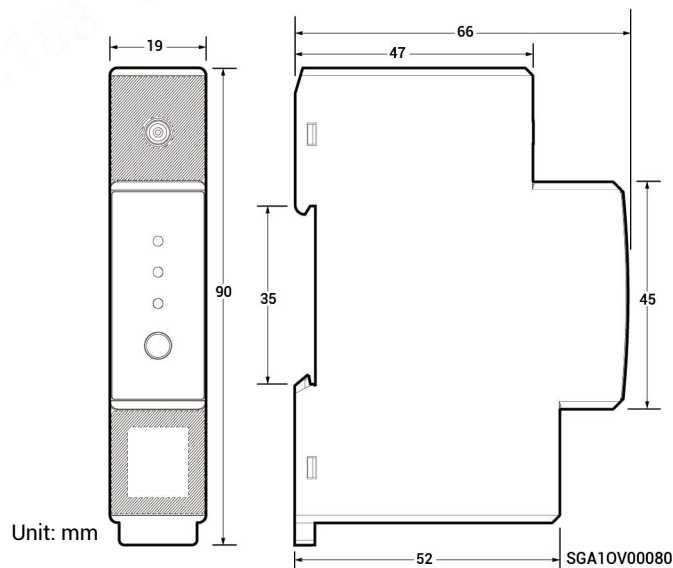


## Caution

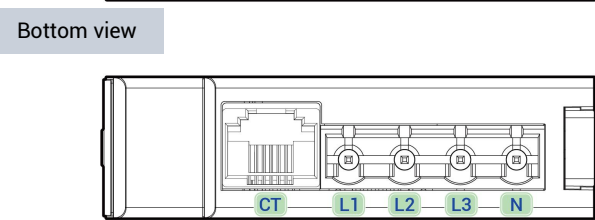
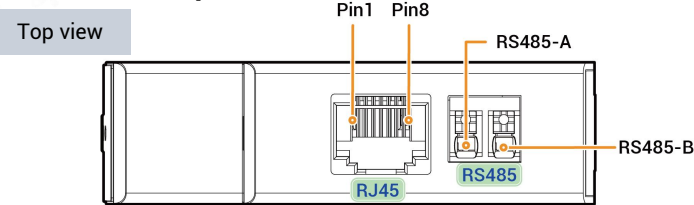
- Only trained or qualified persons with electrical engineering knowledge can work directly on the equipment.
- Operators should be familiar with national and local laws, regulations, and standards, and the compositions and operating principles of relevant systems.
- Before operations, please carefully read operating requirements and precautions in this document. Any equipment damage caused by improper operation will not be covered under warranty.

## 1 Product Description

### 1.1 Appearance



## 1.2 Port Description



Basic parameters SGA10V00095

- Voltage Input: 3x220/230/240 Vac
- CT Current Input: 40 mA
- Current Transformer(CT): 100 A/40 mA
- RJ45 port: For power scheduling, such as DRMs and Ripple control
- RS485 port: RS485 communication

| RJ45 pin | Name        | Interface definition                  |
|----------|-------------|---------------------------------------|
| Pin 1    | DI1         | Digital input 1 or DRM5 for Australia |
| Pin 2    | DI2         | Digital input 2 or DRM6 for Australia |
| Pin 3    | DI3         | Digital input 3 or DRM7 for Australia |
| Pin 4    | DI4         | Digital input 4 or DRM8 for Australia |
| Pin 5    | GND         | Signal GND                            |
| Pin 6    | DI5         | Digital input 5 or DRM0 for Australia |
| Pin 7    | No Function |                                       |
| Pin 8    |             |                                       |

## 1.3 Key Parameters

| S/N | Category                      | Sigen Sensor TP-CT100-WI                        |
|-----|-------------------------------|-------------------------------------------------|
| 1   | Nominal voltage               | 3x220/230/240 Vac, 50/60 Hz                     |
| 2   | Voltage measurement range     | 100-277 Vac (L-N), 173-480 Vac (L-L)            |
| 3   | Current measurement range     | 0~100 A                                         |
| 4   | Electricity metering accuracy | Class 1 (error within $\pm 1\%$ )               |
| 5   | Power grid system             | 3-phase 3 wires/4 wires                         |
| 6   | WLAN                          | 2.4 GHz                                         |
| 7   | RS485 Baud rate               | 2400/4800/9600(Default) /19200/38400/115200 bps |
| 8   | Operating temperature         | -40°C to +70°C                                  |
| 9   | Installation mode             | DIN Rail 35 mm                                  |
| 10  | Certification                 | CE, RCM                                         |

**Danger**  
Always avoid hot-line work.

## 2 Inspections Before Installation

- Check whether the components are entirely supplied and whether the appearance is in good condition. For any problem, contact your sales representative.
- Parts and accessories supplied with the packing box are personal assets of the owner and must not be taken away from the installation site.
- Check and ensure the completeness of personal protective equipment and installation tools; replenish if necessary.
- Check the user-provided cables to ensure the quantity and specifications are correct; if not, please re-prepare them.

### Personal Protective Equipment



Insulating gloves



Insulating shoes

### Installation Tools



Wire cutter



Network cable pliers



Wire stripper



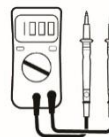
Tape measure



Crimping pliers



Insulated screwdriver set



Multimeter

## 2.1 Self-supplied Cables

### Caution

- The specifications of the Installer-provided cable must comply with the cable regulations and standards of the country/region standards.
- L1, L2, L3, N should be connected to other equipment in sequence without mixing.

| No. | Cable                    | Port             | Type                                                                                                                                        | Conductor Cross-sectional Area Range      | Outer Diameter |
|-----|--------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|----------------|
| 1   | Voltage cable            | L1/L2/L3/N       | Copper cable                                                                                                                                | 0.5 mm <sup>2</sup> ~2.5 mm <sup>2</sup>  | 2 mm~10 mm     |
| 2   | (Optional) Control cable | RJ45 - pin1~pin8 | RJ45 network cables are EIA/TIA 568B standard network cables, eight-core shielded twisted pair, single cable length: ≤ 100 m <sup>[1]</sup> | 0.13 mm <sup>2</sup> ~0.2 mm <sup>2</sup> | 4 mm~7.5 mm    |
| 3   | (Optional) RS485 cable   | RS485-A          | Outdoor two-core shielded twisted pair                                                                                                      | 0.2 mm <sup>2</sup> ~1.5 mm <sup>2</sup>  | 4.5 mm~6.5 mm  |
|     |                          | RS485-B          |                                                                                                                                             |                                           |                |

Note [1]: The cable length should be limited for good communication. Too long cable degrades the communication effect.

## 3 Site Requirements

### Tips

- It is recommended to install the device indoors. If installed outdoors, it must be placed in a waterproof distribution box. Install the equipment in strict accordance with installation instructions given in this section and local laws and regulations.
- Before installing the equipment, be sure to read the following installation requirements carefully. The company will not bear any responsibility if the equipment malfunctions, is damaged, or even causes a personal safety accident during operation due to failure to operate as required.
- During actual installation, the selection of the mounting location should meet local fire protection, environmental protection, and other regulations, as well as local low-voltage power distribution room technical specifications. The specific mounting location planning shall be subject to the installer or EPC (Engineering, Procurement, Construction).

### Installation Environment

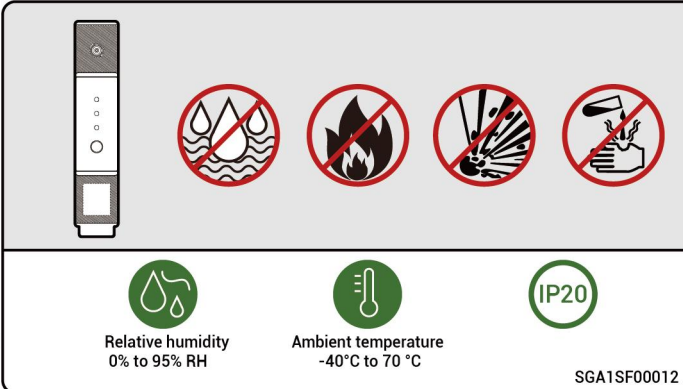
- Do not install the equipment in a smoky, flammable, or explosive environment.
- Avoid exposing the equipment to direct sunlight, rain, standing water, snow, or dust. Install the equipment in a sheltered place. Take preventive measures in operating areas prone to natural disasters such as floods, mudslides, earthquakes, and typhoons.
- Do not install the equipment in an environment with strong electromagnetic interference.
- The temperature and humidity of the installation environment should meet equipment requirements.
- The equipment should be installed in an area that is at least 500 m away from corrosion sources that may result in salt damage or acid damage (corrosion sources include but are not limited to seaside, thermal power plants, chemical plants, smelters, coal plants, rubber plants, and electroplating plants).
- In areas with good marine environments (such as Norway, where the nearshore salinity is  $\leq 28$  psu), the mounting distance of the device from the coastline can be appropriately relaxed to  $\geq 200$  m.
- The equipment should be installed at an altitude of 2000 m or below.

### Installation Location

- Do not install the equipment in areas easily accessible to children.
- Do not install the equipment in a place with fire hazards or is prone to moisturizing.
- Do not install the equipment in a sealed, poorly ventilated location without fire protection measures and difficult access for firefighters.
- You are advised to install the equipment in a location where you can easily access, install, operate, maintain it, and view the indicator status.
- Keep the equipment clear of vehicle passage when installed in a garage to avoid collisions.

### Installation Base

Do not install the equipment on a flammable base.



The diagram illustrates the correct installation environment for the equipment. On the left is a vertical image of the device. To its right are four red prohibition symbols: a circle with a diagonal line over water droplets, a circle with a diagonal line over a flame, a circle with a diagonal line over an explosion, and a circle with a diagonal line over a hand holding a lit match. Below these are three green circular icons: a water droplet, a thermometer, and a circle with 'IP20'. Under the water droplet icon is the text 'Relative humidity 0% to 95% RH'. Under the thermometer icon is the text 'Ambient temperature -40°C to 70 °C'. Under the IP20 icon is the text 'IP20'. In the bottom right corner of the diagram is the code 'SGA1SF00012'.

Relative humidity  
0% to 95% RH

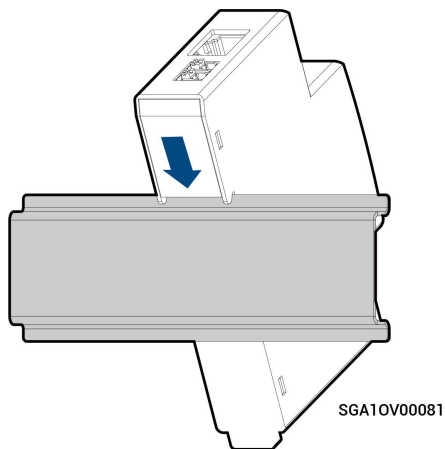
Ambient temperature  
-40°C to 70 °C

IP20

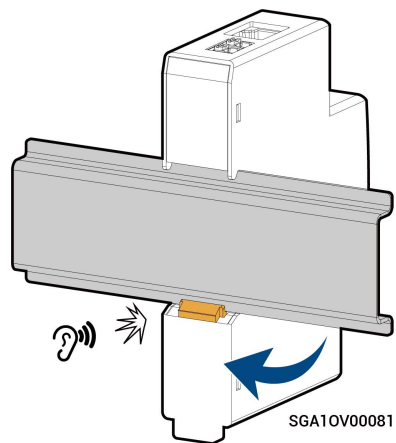
SGA1SF00012

## 4 Smart Power Sensor DIN Rail Mounting

1



2



## 5 Cable Connection

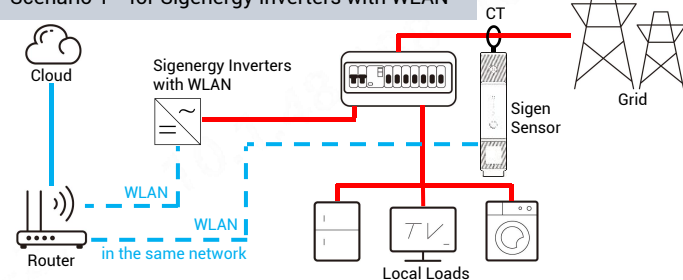
### 5.1 Recommended System Networking Routing

#### ⚠ Caution

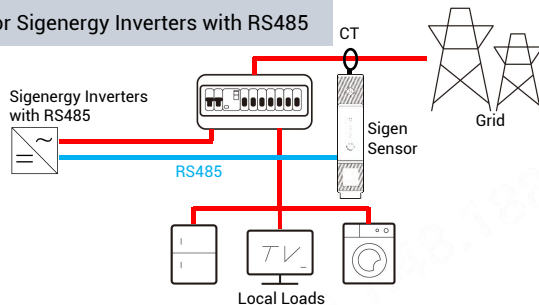
Connect cables according to the corresponding labels to prevent personal injury and equipment damage caused by incorrect cable connection.

- Wireless communication (in the same network)
- Signal cable
- AC cable

#### Scenario 1 - for Sigenergy Inverters with WLAN



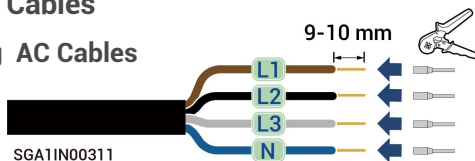
#### Scenario 2 - for Sigenergy Inverters with RS485



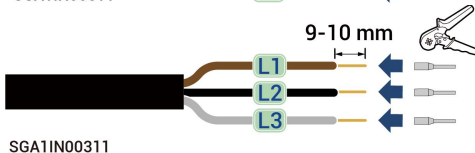
### 5.2 Processing Cables

#### 5.2.1 Processing AC Cables

Three-phase with four-wire



Three-phase with three-wire



#### 5.2.2 (Optional) Processing Signal cable

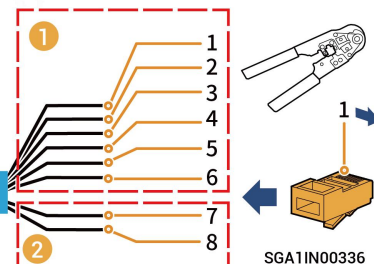
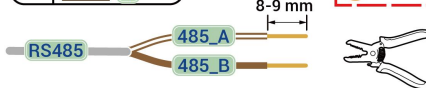
#### Tips

- ① : Connect to ports Pin1 to Pin6 via the control cable for control functions.
- ② : Connect to ports Pin7 and Pin8 via the RS485 cable for no functions.

#### Optional parts

T568B

|   |      |
|---|------|
| 1 | O/W  |
| 2 | O    |
| 3 | G/W  |
| 4 | B    |
| 5 | B/W  |
| 6 | G    |
| 7 | Br/W |
| 8 | Br   |

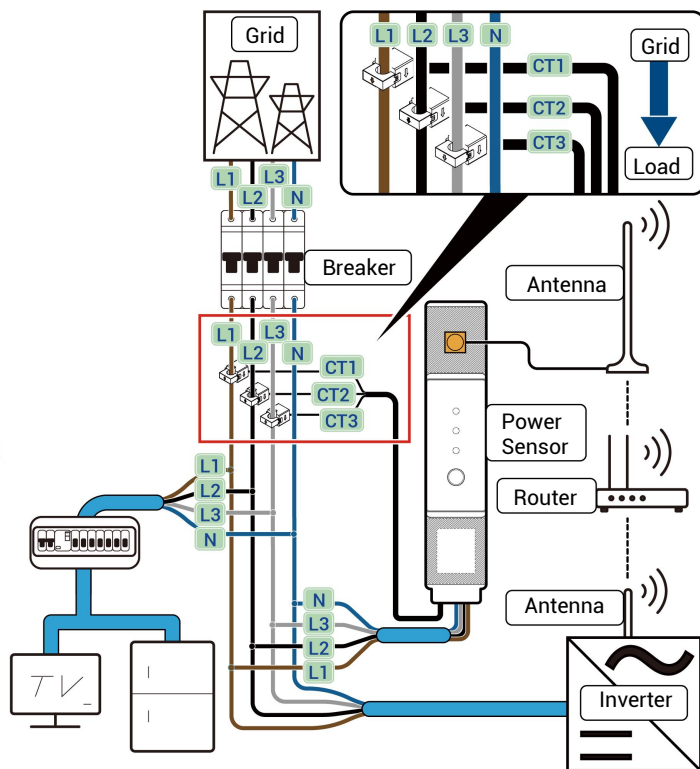


## 5.3 Recommended Routing

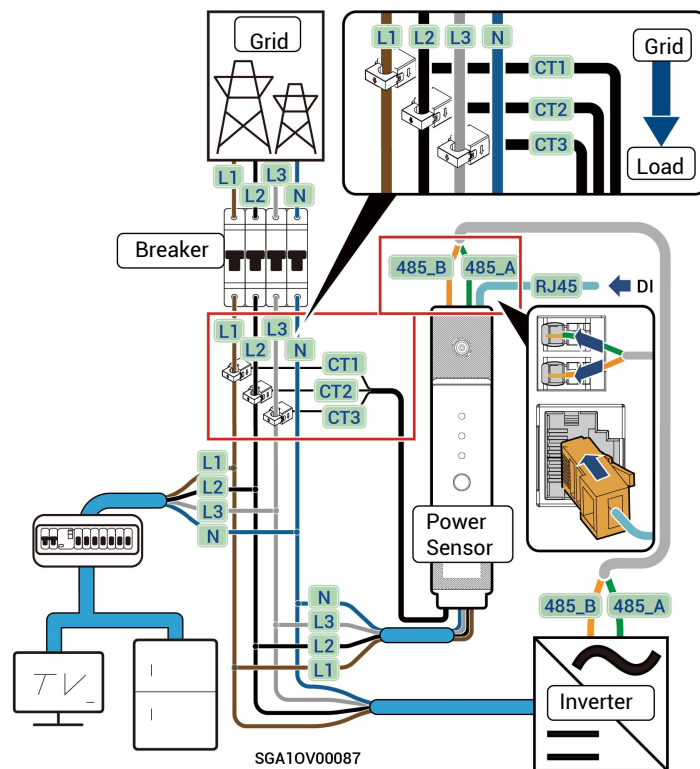
— AC cable   
 — CT cable   
 — Signal cable   
 - - - - - Wireless communication (in the same network)

### 1 Voltage Range: 100-277 Vac (L-N), 173-480 Vac (L-L), three-phase with four-wire

Scenario 1 - for Sigenergy Inverters with WLAN

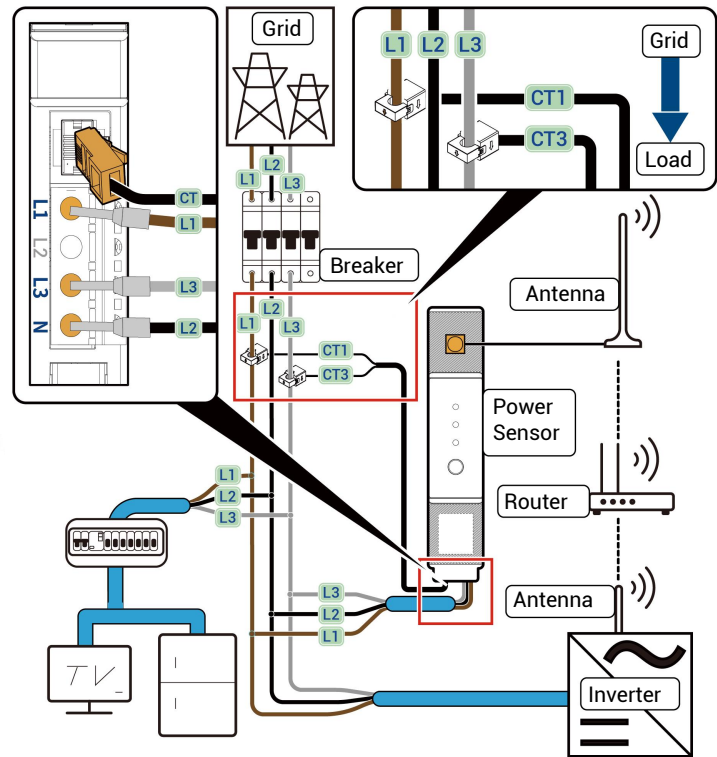


Scenario 2 - for Sigenergy Inverters with RS485

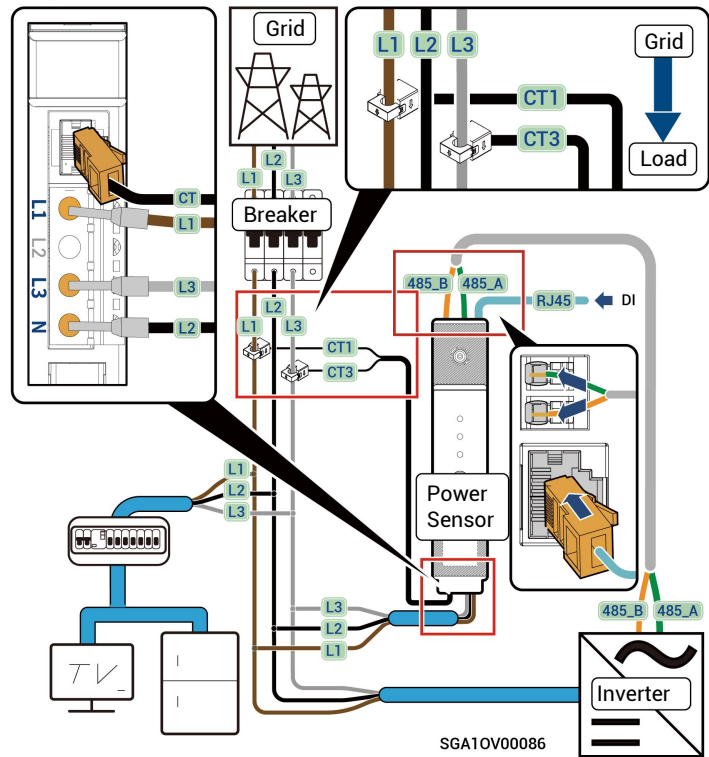


## 2

Scenario 1 - for Sigenergy Inverters with WLAN



Scenario 2 - for Sigenergy Inverters with RS485

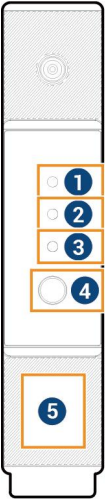


SGA1OV00086

## 6 Definition of button and LEDs

### Tips

Identify the cable connection and table content suiting you according to the label appearance.

| Interface                                                                                       | Definition   | Introduction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------------------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br>SGA11N00312 | ①: Power LED | <b>Solid Green:</b> The Sigen sensor is powered on.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                                                                                 | ②: WLAN LED  | <b>Solid purple:</b> The Sigen sensor has no router network information and is not connected to the router. <b>It is recommended to perform network configuration.</b><br><b>Flashing purple :</b> The Sigen sensor is connected to the router but not to the Sigenenergy inverter. <b>It is recommended to wait a moment and check the connection between the Sigenenergy inverter and the router.</b><br><b>Flashing blue :</b> The Sigen sensor is connected to the Sigenenergy inverter, and communication is normal.<br><b>Solid red :</b> The Sigen sensor has router network information but is not connected to the router. <b>It is recommended to check if the router is set to 2.4GHz and whether the signal strength to the Sigen sensor is sufficient.</b> |
|                                                                                                 | ③: RS485 LED | <b>Flashing Green:</b> The Power sensor is communicating normal.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                                                                                                 | ④: Key       | <ul style="list-style-type: none"> <li>• <b>Press and hold for 3 seconds</b> to enter network configuration mode. You can then connect to the Sigen power sensor via the mySigen App.</li> <li>• <b>Press and hold for 10 seconds:</b> the three indicators turn off and communication parameters are reset. After this operation, you must connect to the meter via the mySigen App and perform network configuration again.</li> </ul>                                                                                                                                                                                                                                                                                                                                |
|                                                                                                 | ⑤: QR code   | Used for WLAN network configuration                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

## 7 Add Sigen Sensor for mySigen APP

### 1 Download the mySigen App



### 2 Add Sigen Sensor to power stations

### Tips

Please scan the QR code below to view the detailed instructions. The corresponding sections in manuals are as follows: [Add/Delete/Replace a Sigen Product in the Existing Power Station](#) in *mySigen App Creating New Systems Guide*.



**Sigenergy Technology Co., Ltd.**



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