Sigen Sensor TP-CT100-WI Installation Guide

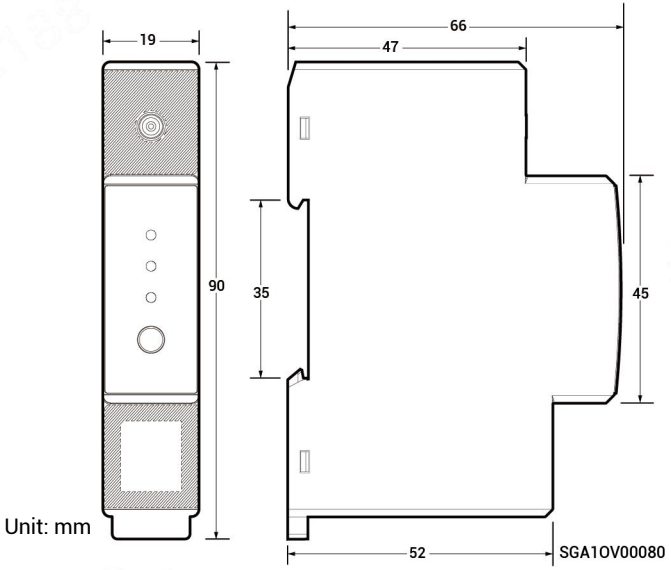
Version: 01
Release date: 2026-03-05

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.**

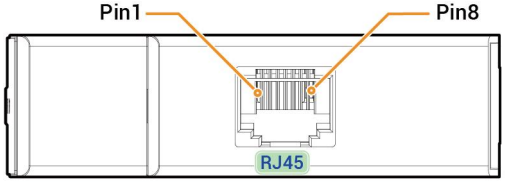
1 Product Description

1.1 Appearance

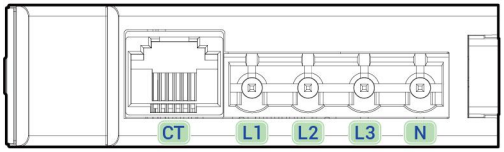


1.2 Port Description

Top view



Bottom view



SGA10V00095

Basic parameters

- 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 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	DRM0	DRM0 for Australia
Pin 7	RS485-A	RS485 communication terminal A
Pin 8	RS485-B	RS485 communication terminal B

1.3 Key Parameters

S/N	Category	Sigen Sensor TP-CT100-WI
1	Nominal voltage	3×220/230/240 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 ± 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℃ to +70℃
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.**

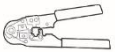
Personal Protective Equipment


Insulating gloves


Insulating shoes

Installation Tools


Wire cutter

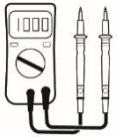

Network cable pliers


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 mm²~2.5 mm²	2 mm~10 mm
2	(Optional) Control cable	RJ45 - pin1~pin6	RJ45 network cables are EIA/TIA 568B standard network cables, eight-core shielded twisted pair, single cable length: ≤ 100 m[1]	0.13 mm²~0.2 mm²	4 mm~7.5 mm
3	(Optional) RS485 cable	RJ45 - pin7			
4		RJ45 - pin8			

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

Tips

- **It is recommended to install the device indoors. If installed outdoors, it must be placed in a waterproof distribution box.**
- **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

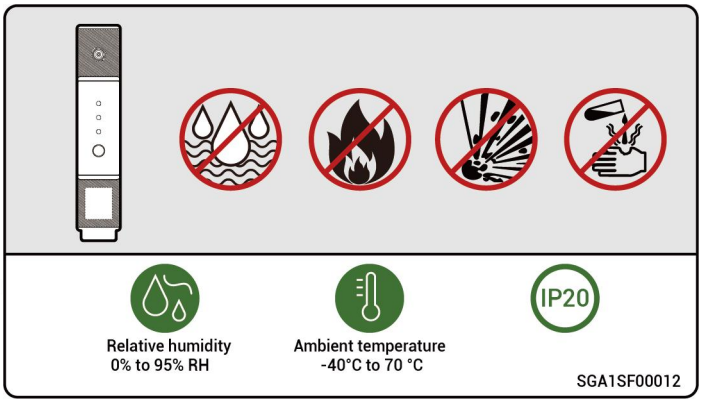
- Do not install the equipment in a smoky, flammable, or explosive environment.
- Avoid exposing the equipment to direct sunlight, rain, standing water, snow, or dust. Install the equipment in a sheltered place. Take preventive measures in operating areas prone to natural disasters such as floods, mudslides, 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 ≤ 28 psu), the mounting distance of the device from the coastline can be appropriately relaxed to ≥ 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.

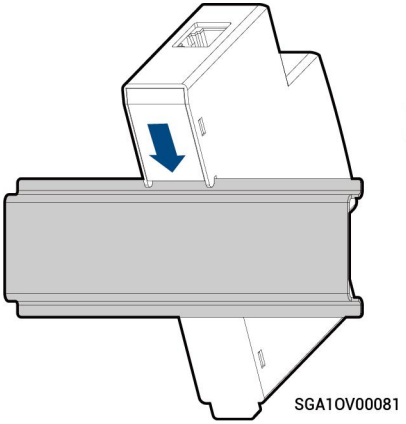
Installation Base

Do not install the equipment on a flammable base.

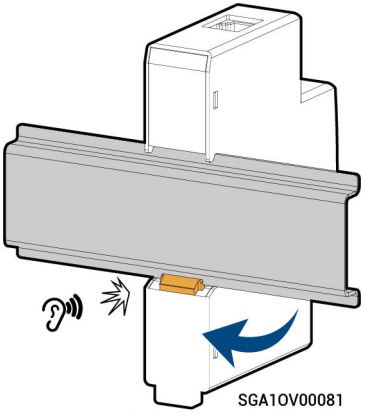


4 Smart Power Sensor DIN Rail Mounting

1



2



5 Cable Connection

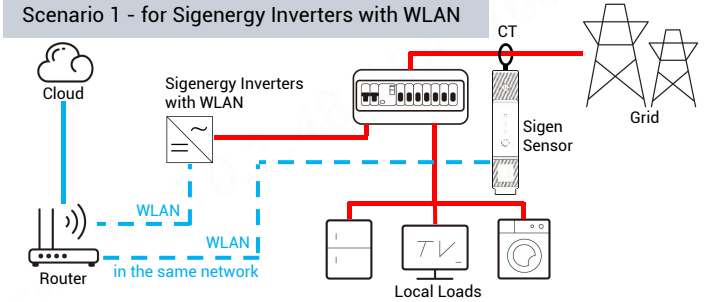
5.1 Recommended System Networking Routing

Caution

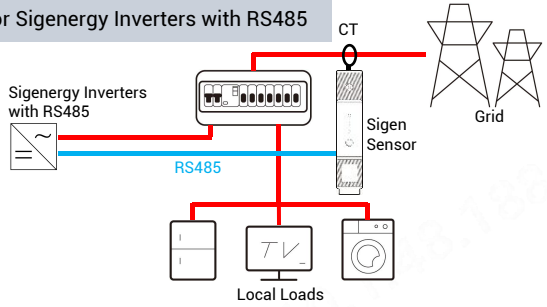
Connect cables according to the corresponding labels to prevent personal injury and equipment damage caused by incorrect cable connection.

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

Scenario 1 - for Sigenergy Inverters with WLAN



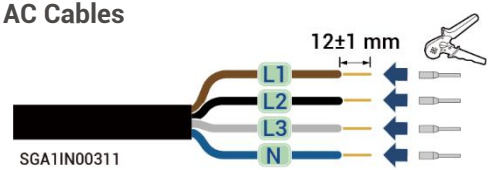
Scenario 2 - for Sigenergy Inverters with RS485



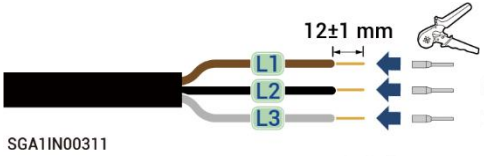
5.2 Processing Cables

5.2.1 Processing AC Cables

Three-phase with four-wire



Three-phase with three-wire



5.2.2 (Optional) Processing Signal cable

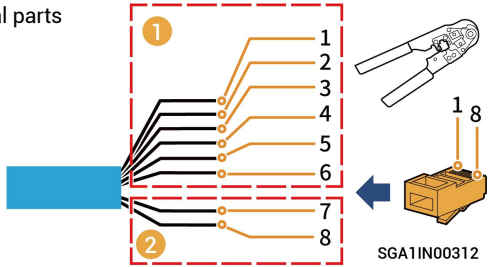
Tips

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 RS485 signal functions.**

Optional parts

T568B

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

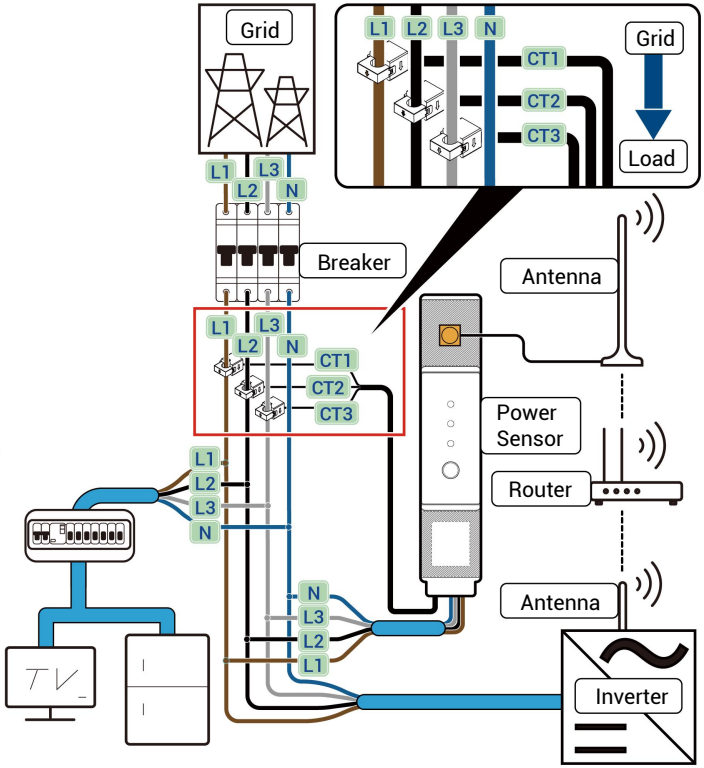


5.3 Recommended Routing

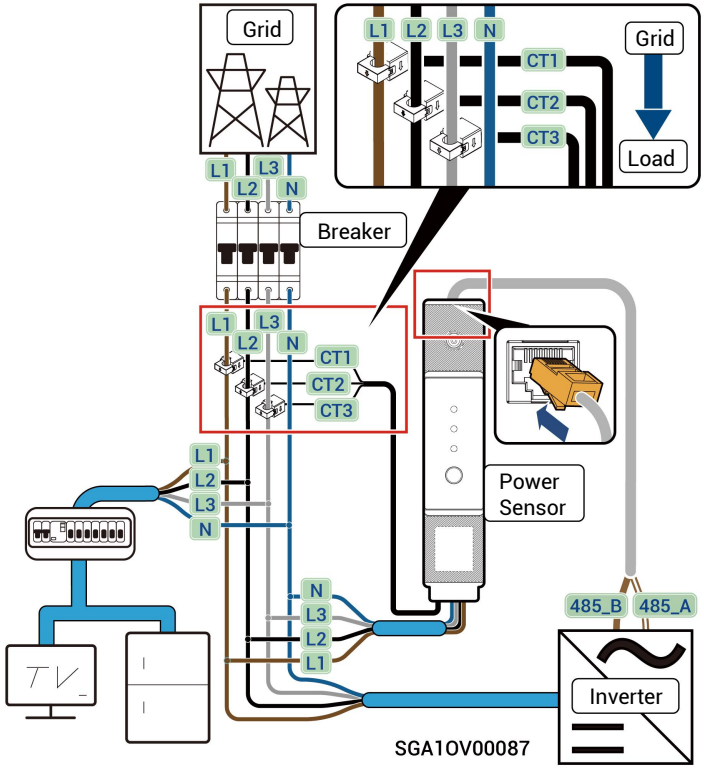
AC cable — CT cable — Signal cable ---------- Wireless communication (in the same network)

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

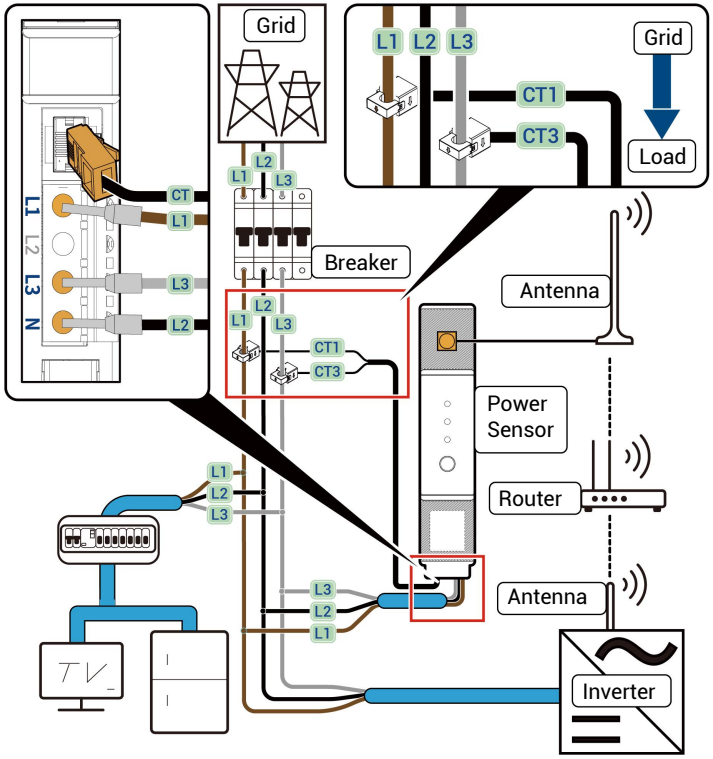


Scenario 2 - for Sigenergy Inverters with RS485

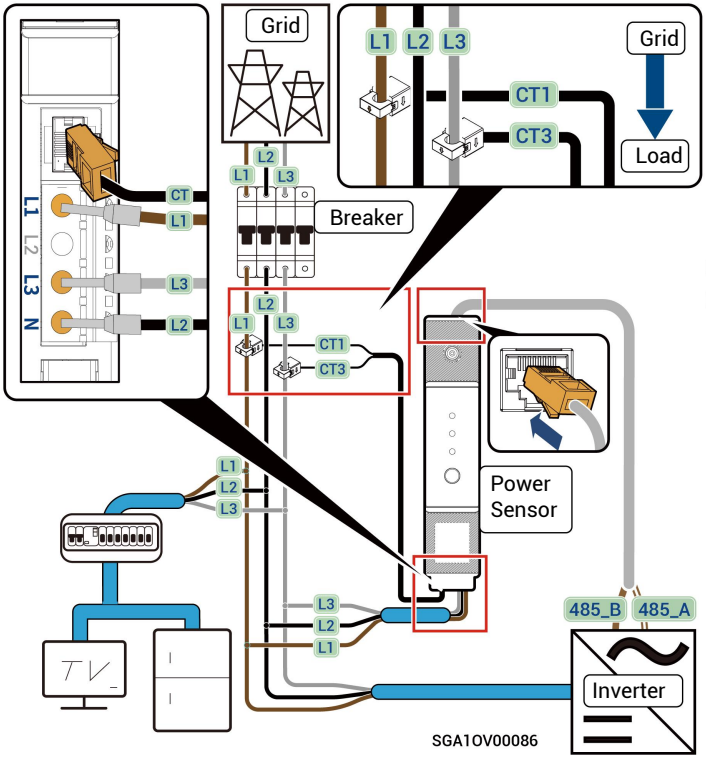


2 Voltage Range: 173-480 Vac (L-L), three-phase with three-wire

Scenario 1 - for Sigenergy Inverters with WLAN



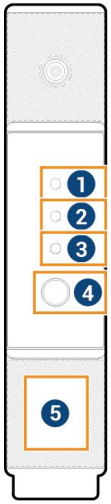
Scenario 2 - for Sigenergy Inverters with RS485



6 Definition of button and LEDs

Tips

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

Interface	Definition	Introduction
 SGA1IN00312	1: Power LED	**Solid Green:** The Sigen sensor is powered on.
	2: WLAN LED	**Solid purple:** The Sigen sensor has no router network information and is not connected to the router. **It is recommended to perform network configuration.** **Purple flashing:** The Sigen sensor is connected to the router but not to the Sigenergy inverter**. It is recommended to wait a moment and check the connection between the Sigenergy inverter and the router.** **Blue flashing:** The Sigen sensor is connected to the Sigenergy inverter, and communication is normal. **Red solid:** The Sigen sensor has router network information but is not connected to the router. **It is recommended to check if the router is set to 2.4GHz and whether the signal strength to the Sigen sensor is sufficient.**
	3: RS485 LED	**Flashing Green:** The Power sensor is communicating normal.
	4: Key	• Press and hold for 3 seconds to enter network configuration mode. You can then connect to the Sigen power sensor via the mySigen App. • Press and hold for 10 seconds: 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.
	5: QR code	Used for WLAN network configuration

7 Add Sigen Sensor for mySigen APP

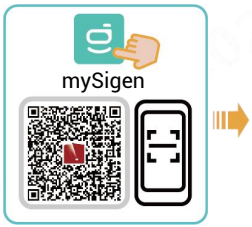
1 **Download the mySigen App**

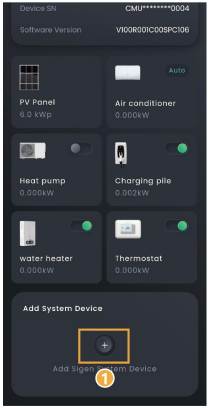
2 **Add Sigen Sensor to power stations**

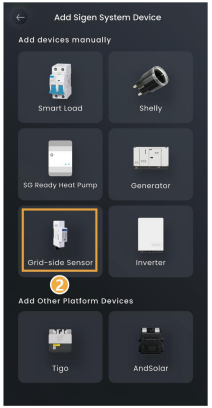
Tips

Please scan the QR code below to view the detailed instructions. The corresponding sections in manuals are as follows:

- **"mySigen App User Manual" ("Add Sigen/Third-Party Device"→"Grid side Sensor")**
- **"mySigen App Installer Manual" ("Add Sigen/Third-Party Device"→"Grid-side Sensor")**







Sigenergy Technology Co., Ltd.

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