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SUNGROW Logger 1000 Data Logger Smart Solar Installation Guide

September 24, 2024

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SUNGROW
Clean power for all

SUNGROW Logger 1000 Data Logger Smart Solar

Frequently Asked Questions

Q: What should I do if I notice any damaged or missing components during installation?

A: Contact SUNGROW or the distributor immediately for assistance in replacing the damaged or missing parts.

**Q: Can operations be performed by untrained personnel?**

A: No, all operations should only be carried out by qualified personnel trained in electrical systems and safety protocols.
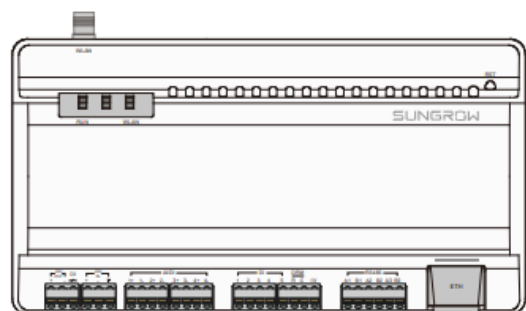
Validity

This manual is valid for the following data loggers.

- Logger1000A (4G version)
- Logger1000B (non-4G version)
  The foregoing Loggers are referred to as the "Logger1000" for short unless otherwise specified.
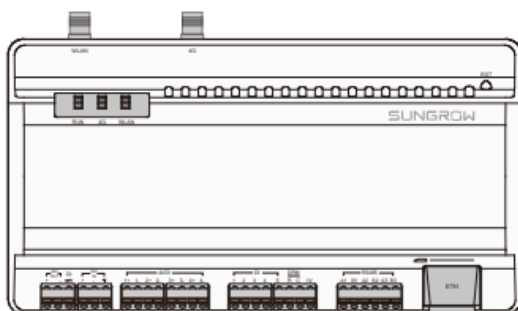
Logger1000A

Logger1000B

Safety

1. Contents may be periodically updated or revised due to product development. The information in this guide is subject to change without notice. In no case shall this guide substitute for the user manual or related notes on the device.
2. Make sure to read over, fully understand and strictly follow the detailed instructions of the user manual and other related regulations. Scan the bottom QR Code of the cover to view or obtain the user manual.
3. All operations can be performed only by qualified personnel, that must be trained in the installation and commissioning of the electrical system, as well as the dealing with hazards, have knowledge of the manual and of the local regulations and directives.
4. Before installation, check that the package contents are intact and complete against the packing list. Contact SUNGROW or the distributor in case of any damaged or missing components.
5. The cable must be intact and well-insulated. Operation personnel must wear proper personal protective equipment (PPE) all the time.
6. Any violation could result in personal death or injury or device damage, and will void the warranty.

EU Declaration of Conformity within the scope of the EU directives

- Restriction of the use of certain hazardous substances 2011/65/EU and 2015/863/EU (RoHS)
- The Radio Equipment Directive 2014/53/EU (RED)

SUNGROW confirms herewith that the products described in this document are in compliance with the fundamental requirements and other relevant provisions of the abovementioned directives. The entire EU Declaration of Conformity can be found at support.sungrowpower.com.
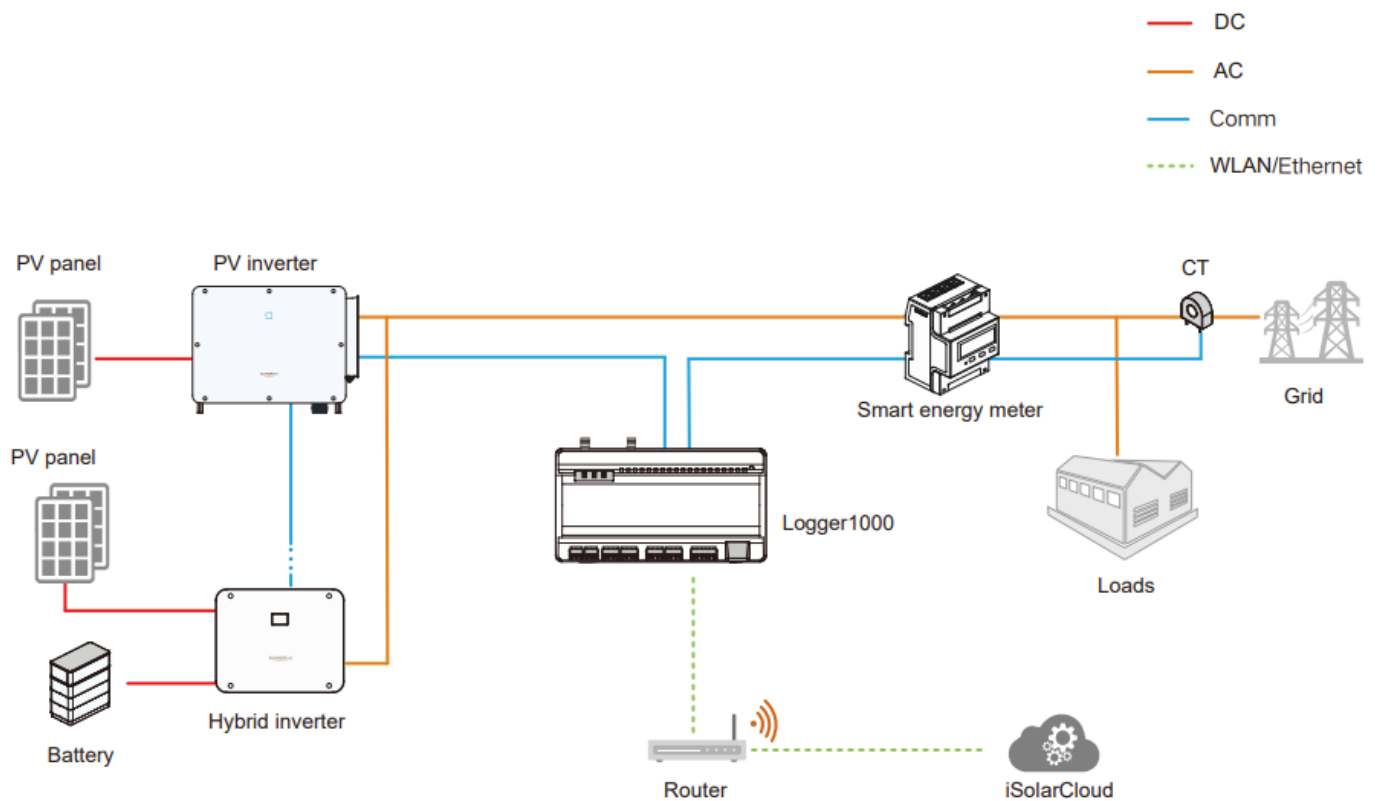
Technical parameters listed above apply to EU countries only.
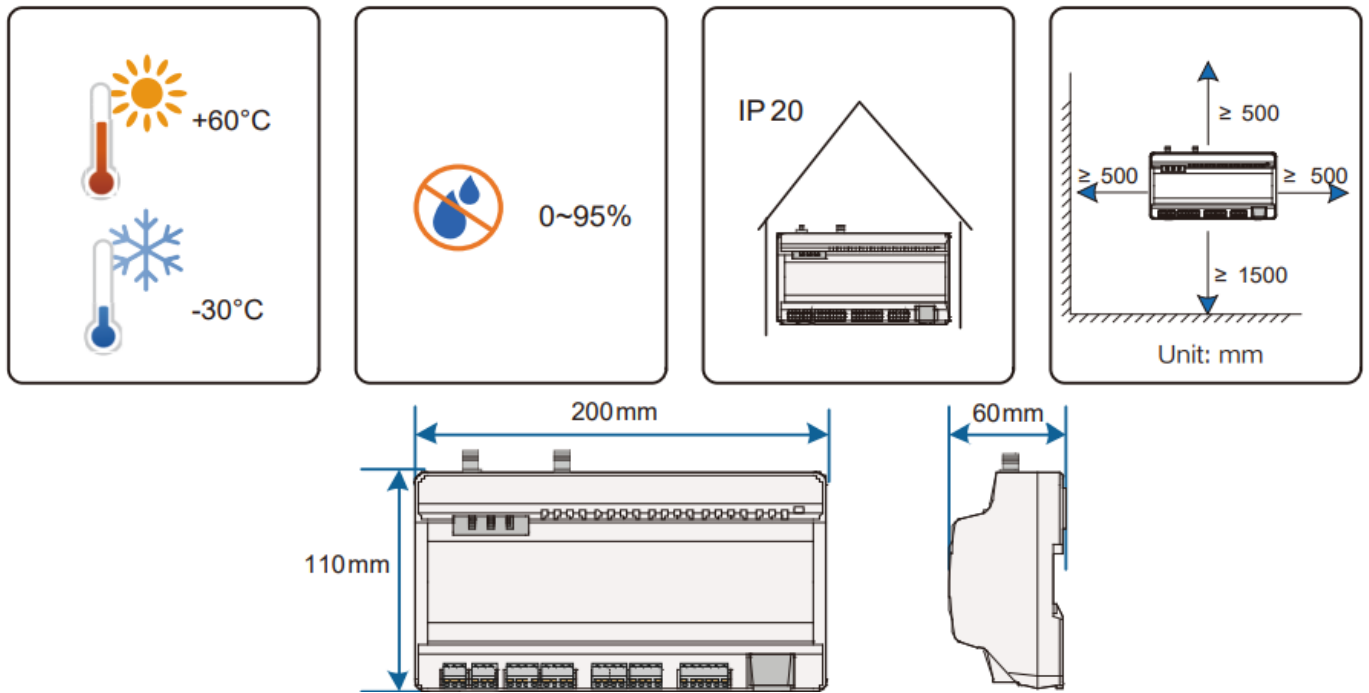
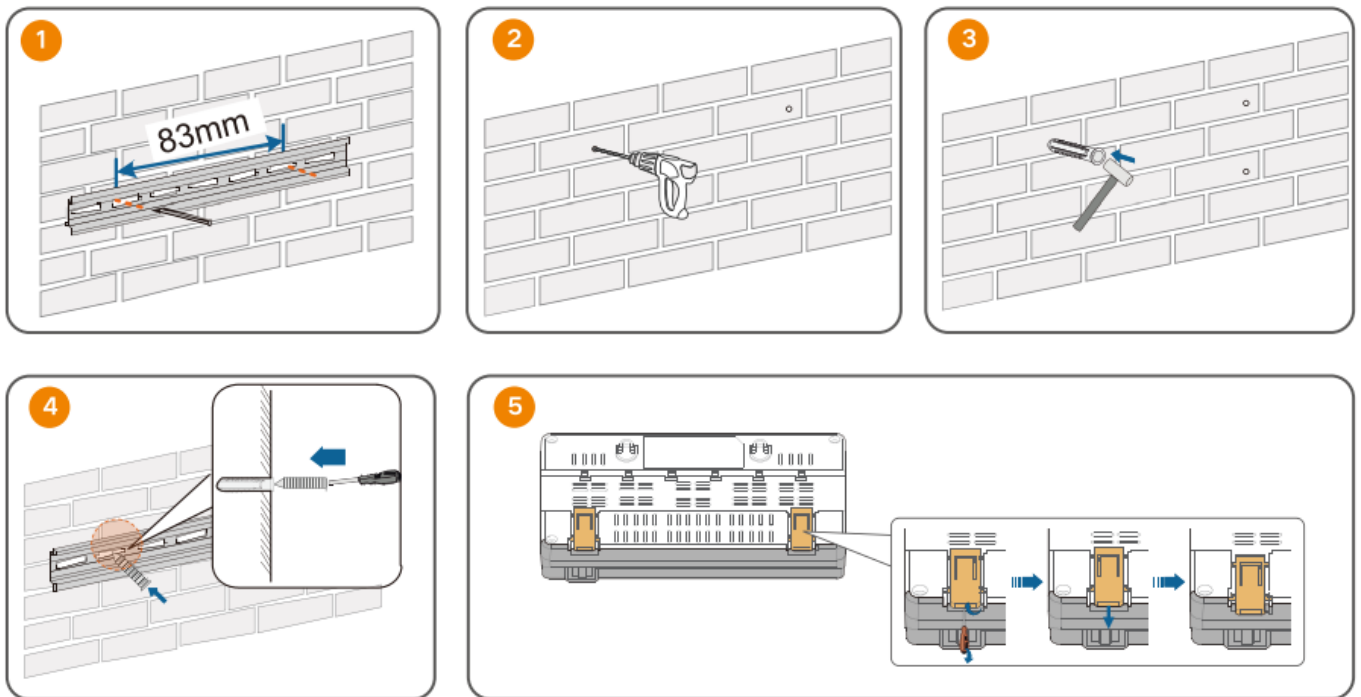## Typical Application

PV System
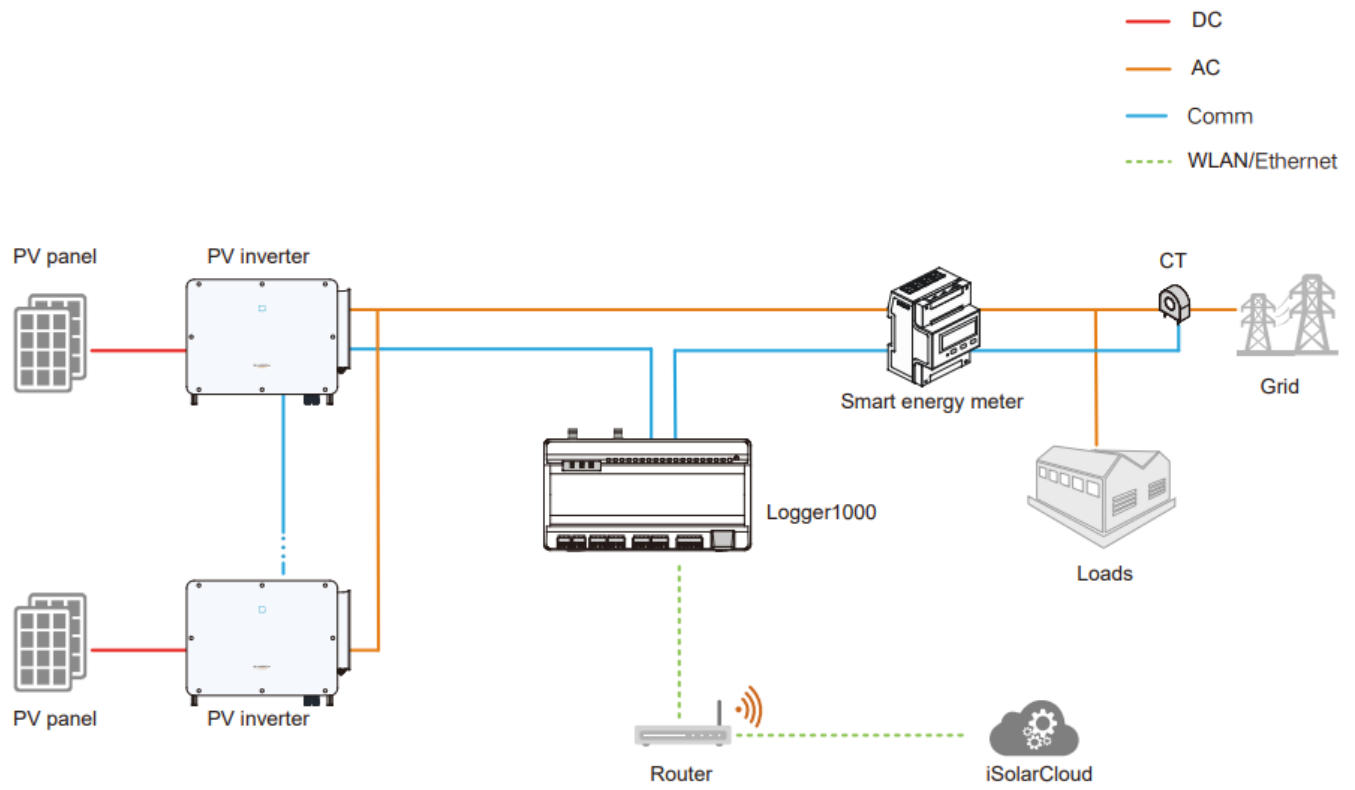
Energy Storage System
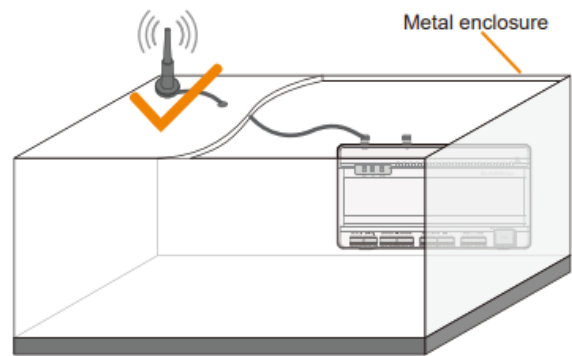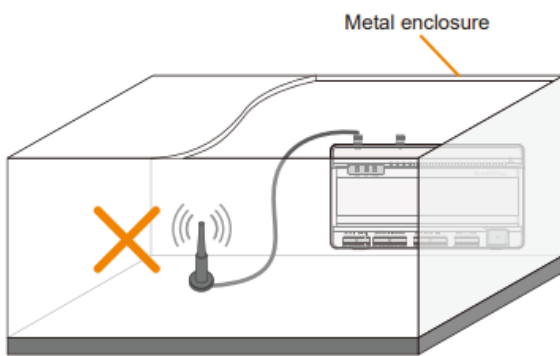

Mechanical Installation

Installation Location

+60°C

-30°C

0~95%

IP 20

≥ 500

≥ 500

≥ 500

≥ 1500

Unit: mm

200mm

110mm

60mm

Guide Rail-Mounting

1 83mm

2

3

4

5
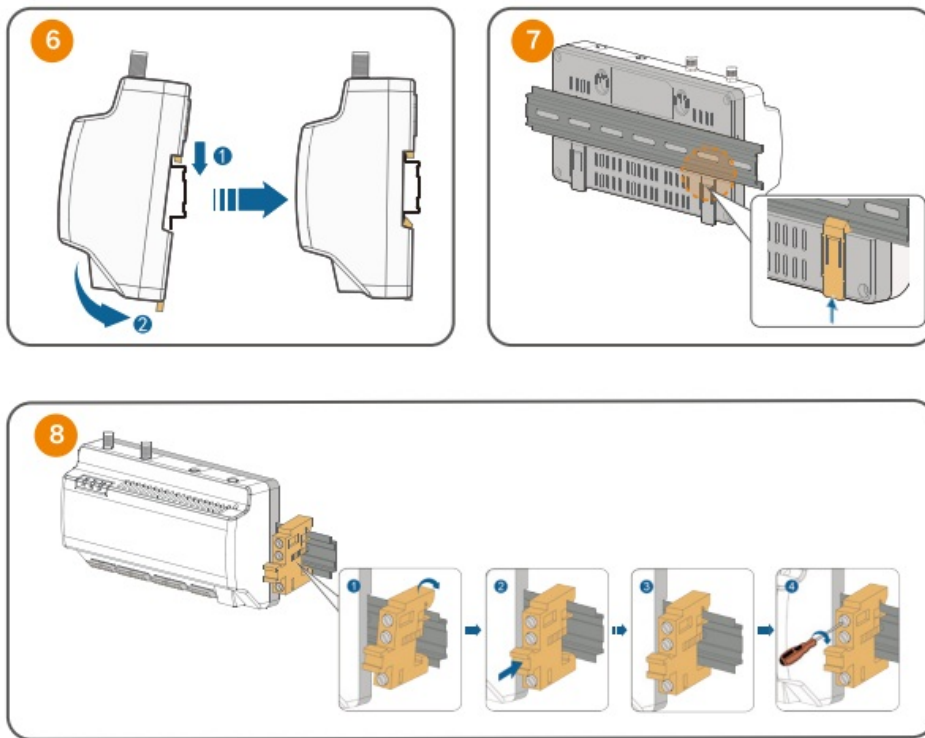
Installing Antenna

Installing Power Box

Electrical Connection

Port Introduction

Port description

Tab. 3-1 Port description		
Port (print)	Function	Description
24V OUT	24V power output	24V±5%, the max. output current: 0.5A

DI	Converters AI into DI	Switch for enabling the AI/DI function
24V IN	24V power input	24V±3%
⏚	Grounding	Connecting protective grounding cable
AI/DI	Analog input	Default AI input sampling: 0-10V or 4-20mA
DI	Digital input	Digital signal input
DRM	Demand Response Modes function	–
0V	Digital reference point	–
RS485	RS485 communication port	Support of 3 inputs of RS485
▱*	SIM card slot	Support of Micro-SIM card
ETH	Ethernet port	Can be connected to background master via devices such as Ethernet switch and router
WLAN	WLAN antenna	
4G*	4G antenna	
RST	Reset	Press and hold it for > 3s to restart. Press and hold it for > 60s to restore the default settings.

Note: *Only the Logger1000A is equipped with the SIM card slot and the 4G function.

Indicator description

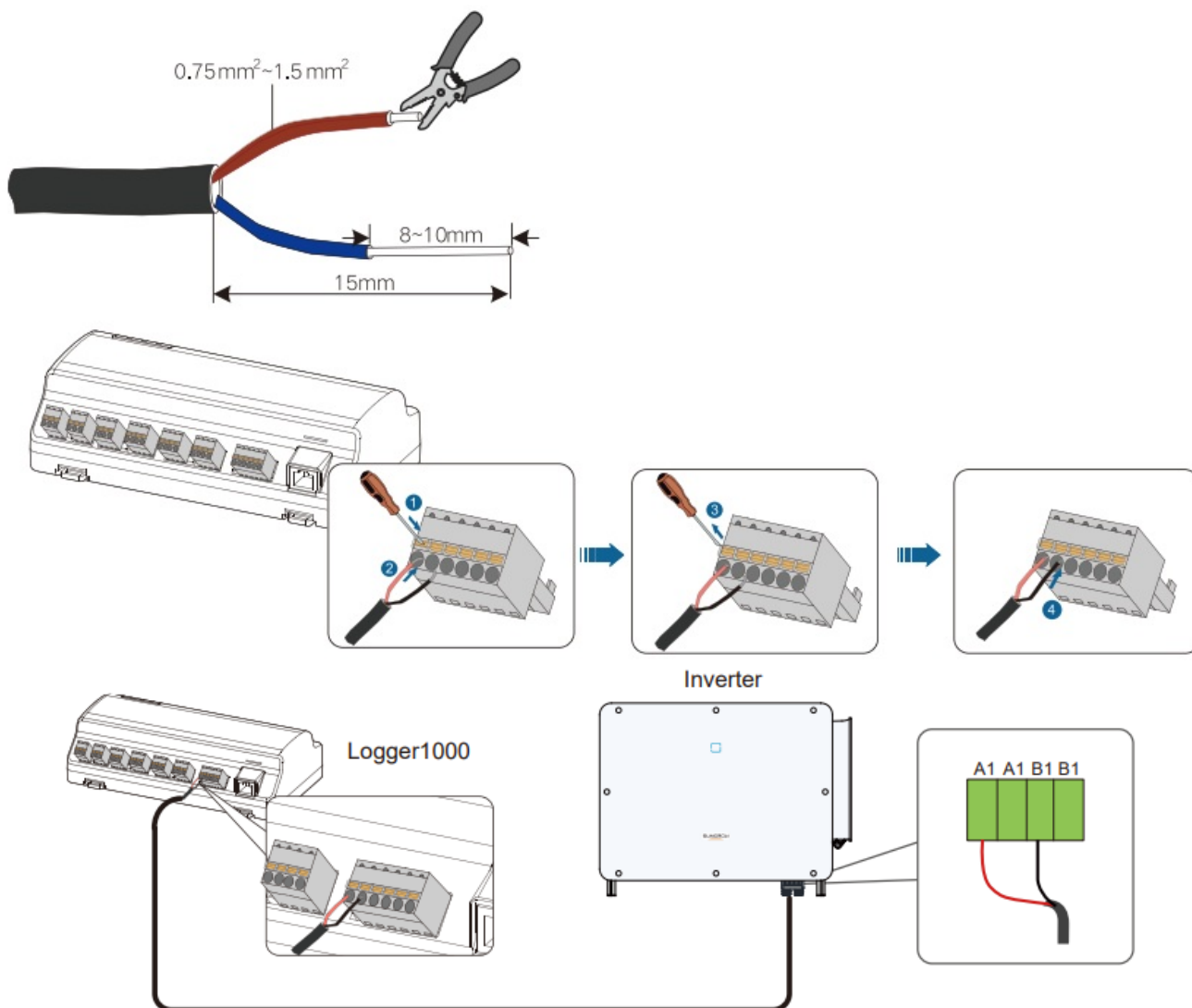| Indicator (print)	LED color	LED status	Description
Running indicator (RUN)	Red/green	Off	No external power supply connected
		Slow flash (Green)	Normal running
		Slow flash (Red)	Device alarm
		Steady on (Red)	Logger1000 running fault
4G indicator (4G)*	Blue	Off	No data communication
		Steady on	4G connected successfully
		Slow flash	Data communication in process
WLAN indicator (WLAN)	Blue	Off	No data communication
		Steady on	WiFi connected successfully
		Slow flash	Data communication in process

Tab. 3-2 Indicator description

Note: * Only the Logger1000A is equipped with the 4G indicator.

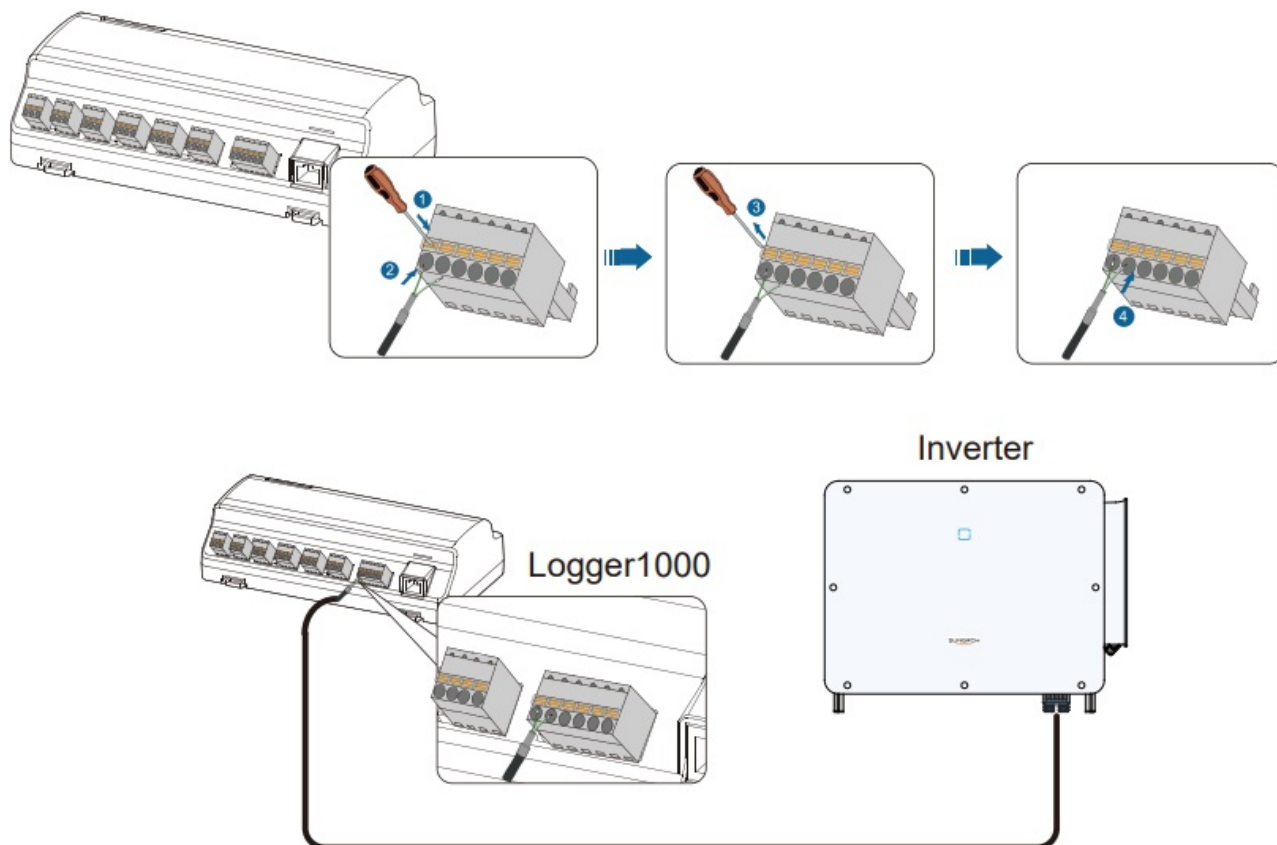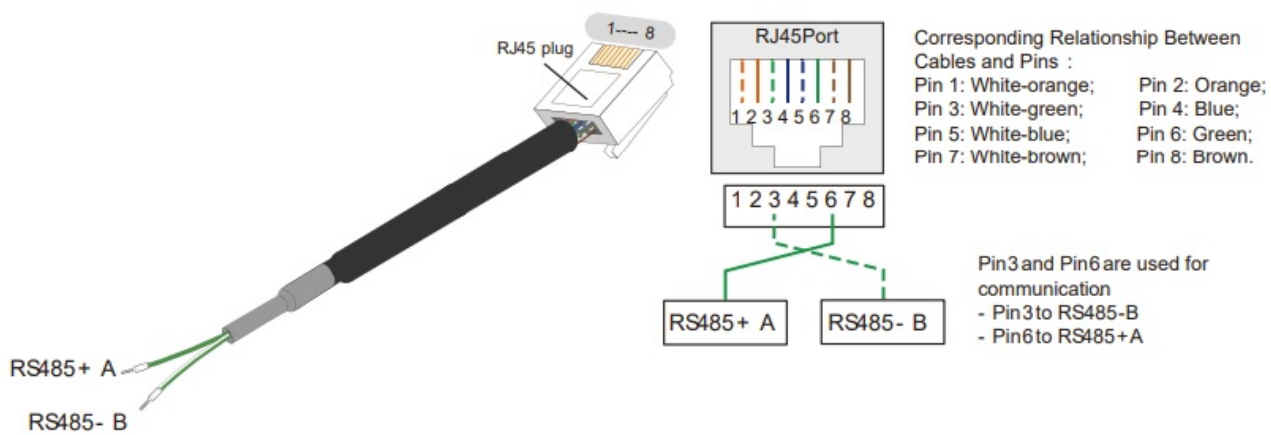## Connection to PV Devices

- Connection to a single inverter

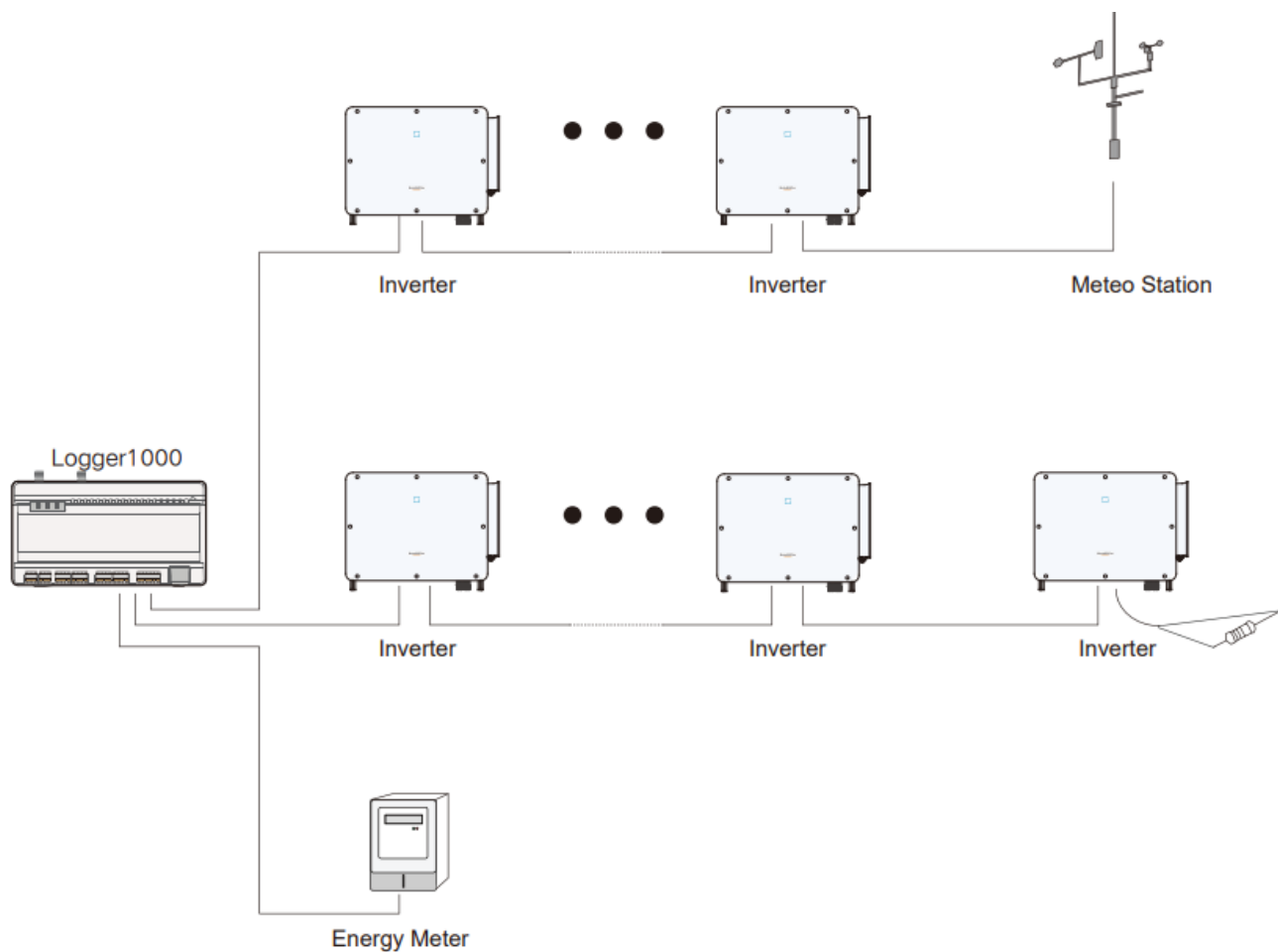 The RS485 port of SUNGROW inverter is RS485 terminal block or RJ45 port.

- RS485 terminal block connection

RJ45 port connection

RJ45 plug
1 --- 8

RJ45 Port
1 2 3 4 5 6 7 8

Corresponding Relationship Between Cables and Pins :
Pin 1: White-orange; Pin 2: Orange;
Pin 3: White-green; Pin 4: Blue;
Pin 5: White-blue; Pin 6: Green;
Pin 7: White-brown; Pin 8: Brown.

1 2 3 4 5 6 7 8

RS485+ A   RS485- B

Pin3 and Pin6 are used for communication
- Pin3 to RS485-B
- Pin6 to RS485+A

RS485+ A

RS485- B

Inverter

Logger1000

Connection to multiple devices

NOTICE

- Multiple inverters are connected to the Logger1000 in the RS485 daisy chain manner.
- If more than 15 inverters are connected on the RS485 bus, it is recommended to connect a 120Ω terminal resistor in parallel on the RS485A and RS485B lines at the head or tail end of the bus.
- When the number of device types is less than or equal to the number of RS485 ports of Logger1000, it is recommended to connect different types of devices to different RS485 ports separately.
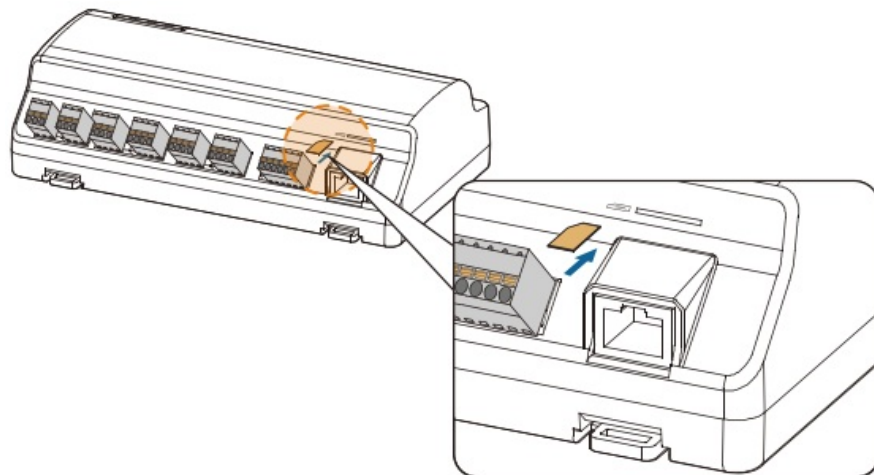
Connection to Background
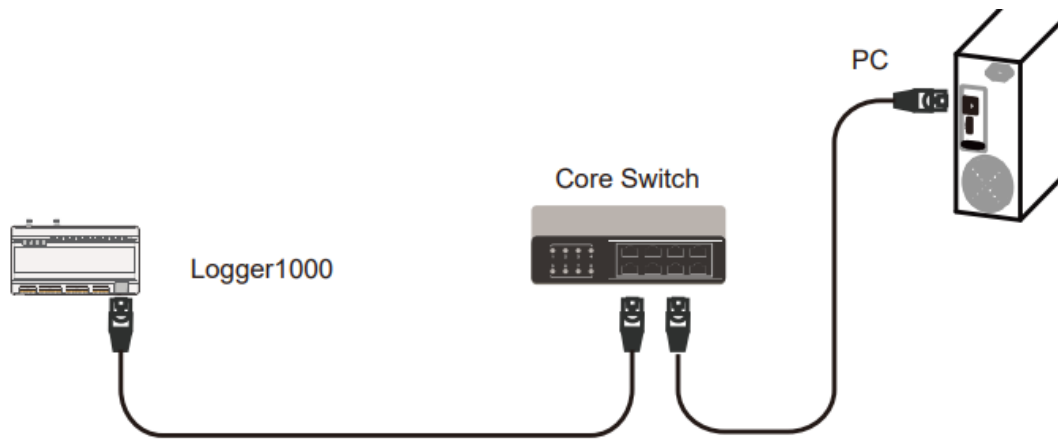
NOTICE

Default IP address of the "ETH": 12.12.12.12.

Connection to Micro-SIM/ Verbindung zur Micro-SIM
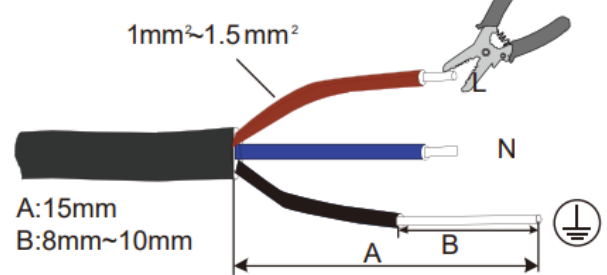
Micro-SIM card size: 12mm × 15mm.

NOTICE

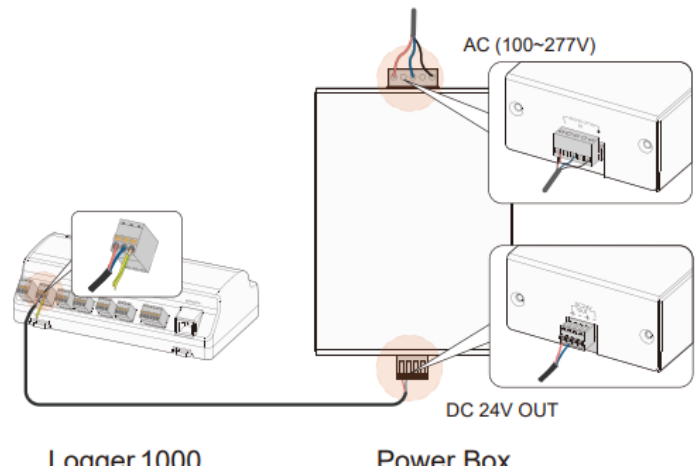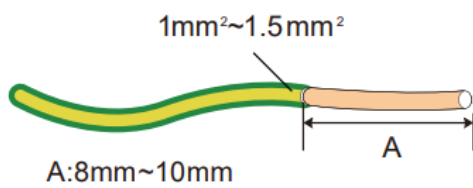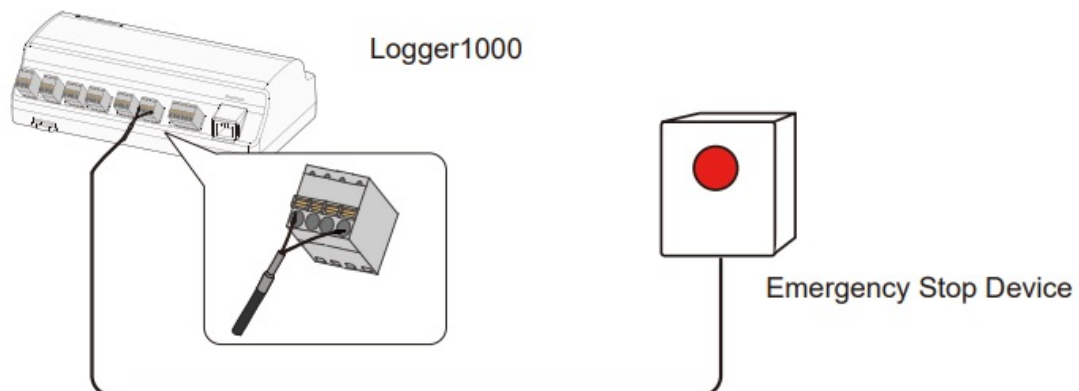Micro-SIM card hot-plugging is supported.
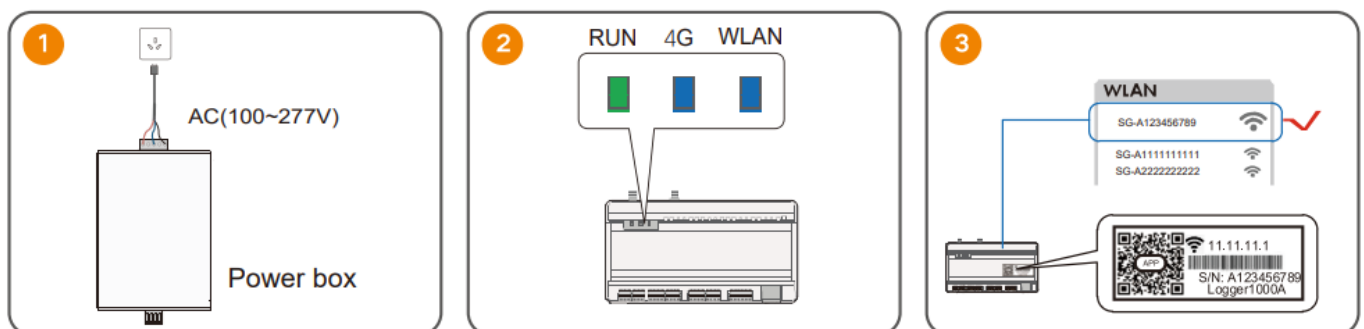
Connection to Power Box

DC Cable

1mm²~1.5mm²

A:15mm
B:8mm~10mm

AC Cable

1mm²~1.5mm²

N

A:15mm
B:8mm~10mm

Grounding Cable

1mm²~1.5mm²

A:8mm~10mm

AC (100~277V)

DC 24V OUT

Logger1000

Power Box
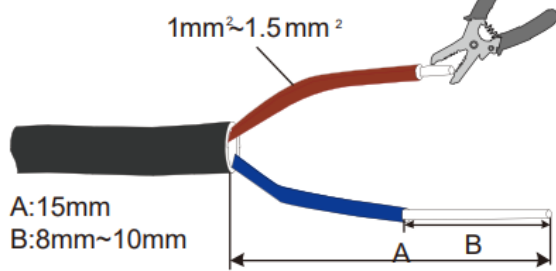
Connection to Emergency Stop Device

Logger1000

Emergency Stop Device

Commissioning

① AC(100~277V)

Power box

② RUN   4G   WLAN

③ WLAN

SG-A123456789

SG-A1111111111
SG-A2222222222

11.11.11.1
APP
S/N: A123456789
Logger1000A
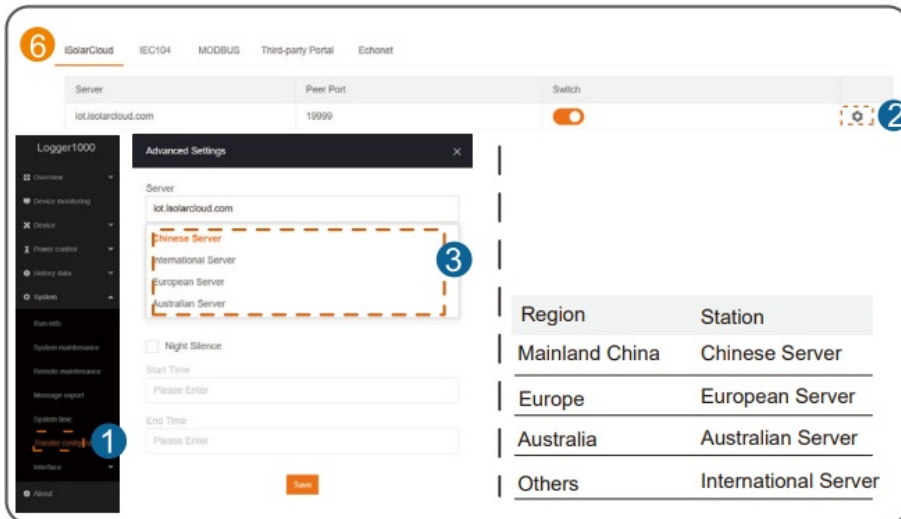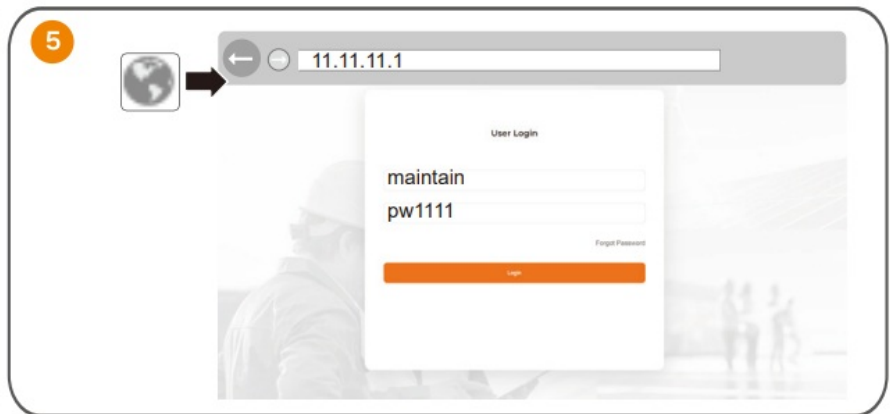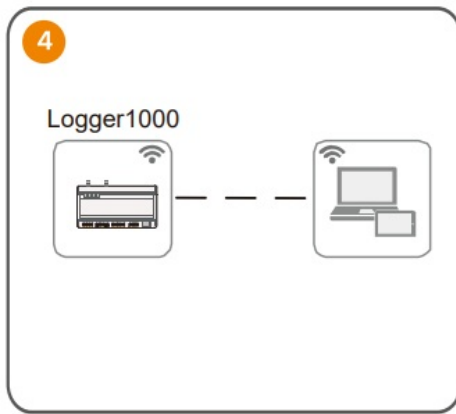
Security Declaration

- Support for software updates: 2 years
- For details on the product's network security vulnerability response process and vulnerability disclosure, please scan the QR code on the right or visit the following website:

  https://en.sungrowpower.com/security-vulnerability-management

Related documents

User Manual of iSolarCloud App

More information in the QR code or at http://support.sungrowpower.com

Sungrow Power Supply Co., Ltd.

www.sungrowpower.com

Documents / Resources

	SUNGROW Logger 1000 Data Logger Smart Solar [pdf] Installation Guide Logger1000A, Logger1000B, Logger 1000 Data Logger Smart Solar, Logger 1000, Data Logger Smart Solar, Logger Smart Solar, Smart Solar, Solar

References

- 🌐 support.sungrowpower.com
- 🔲 Leading Solar Inverter and Energy Storage Solutions Provider - Sungrow US
- 🔲 Vulnerability Management | SUNGROW
- User Manual

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