# Deye ®

# SAFETY

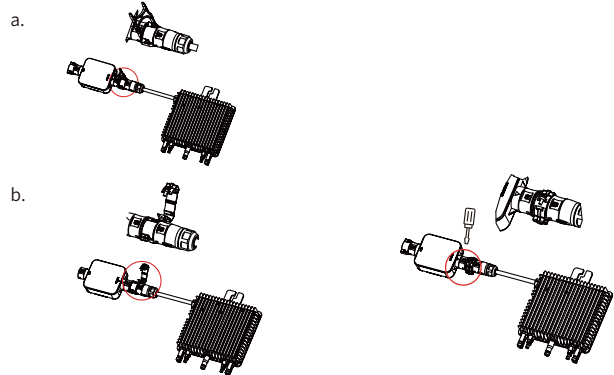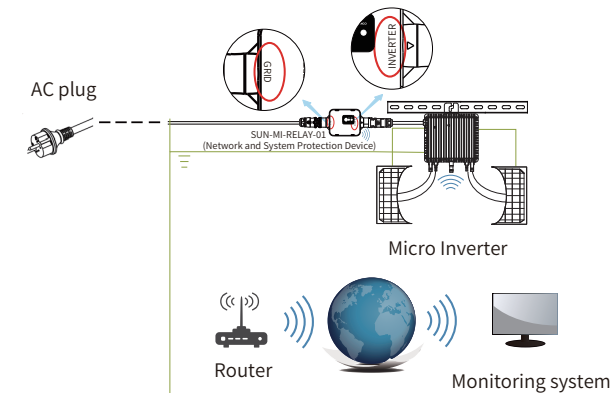**IMPORTANT SAFETY INSTRUCTIONS.**
**SAVE THIS INFORMATION.**

Follow all safety and assembly instructions when installing the SUN-MI-RELAY-01 (Network and System Protection Device).
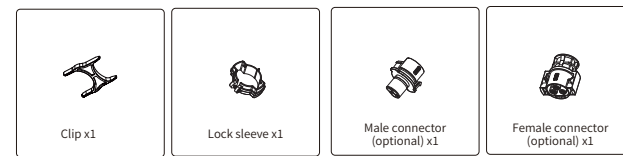
## Safety Instructions

| Can be OEM | Trademark. |
|---|---|
| ⚡ | Caution, risk of electric shock. |
| ⚠ | Caution, risk of burn - Do not touch. |
| ♨ | Caution, hot surface. |
| ♻ | 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 | CE mark is attached to the solar inverter to verify that the unit follows the provisions of the European RED Directives. |
| 📖 | Refer to the operating instructions |
| Qualified personnel | 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. |

## INTRODUCTION

SUN-MI-RELAY-01 (Network and System Protection Device) : it is used to monitoring and disconnect the grid when sensing the grid voltage/frequeny is out of the allowed range. The relay kit also is able to reconnect grid when the grid condtions resume. It must communicate with the built-in wifi module of the Micro Inverter, the Micro Inverter can work normally, otherwise the Micro Inverter can not work.The localhost of this relay kit is 10.10.101.254.
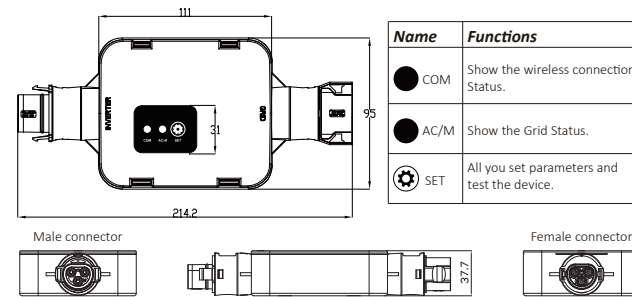
AC plug

SUN-MI-RELAY-01
(Network and System Protection Device)

Micro Inverter

Router

Monitoring system

a.

b.

## Parts list

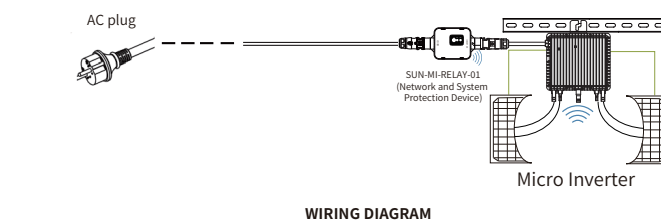| Clip x1 | Lock sleeve x1 | Male connector (optional) x1 | Female connector (optional) x1 |
|---|---|---|---|

NOTE: For the connection between SUN-MI-Relay-01( Network and System Protection Device) andMicro Inverter , the tool(screwdriver) is needed.

WARNING: The Micro Inverter SUN-M60G3-EU-Q0-RE, SUN-M80G3-EU-Q0-RE, SUN-M100G3-EU-Q0-RE shall not be put into operation without external relay kit SUN-MI-RELAY-01.

| Name | Functions |
|---|---|
| ● COM | Show the wireless connection Status. |
| ● AC/M | Show the Grid Status. |
| ⊙ SET | All you set parameters and test the device. |

Male connector

Female connector

## INSTALLATION

AC plug

SUN-MI-RELAY-01
(Network and System Protection Device)

Micro Inverter

**WIRING DIAGRAM**

Before the installation, please turn off the the DC and AC of the microiverter and wait for 5mins then start to operate.

The SUN-MI-Relay-01 (Network and System Protection Device) supports fast plug connection. It is equipped with quick plug terminals which is compatible with all Deye microinverters(for the G3 series, it needs install another adapter). Firstly, Plug the male connector of SUN-MI-RELAY-01 to the female connector of Micro Inverter . Then plug the female connector of SUN-MI-RELAY-01 to the male connector of AC plug. At last, connect the AC plug go to the plug board of household.

Note: For the connection between SUN-MI-Relay-01(Network and System Protection Device) and Micro Inverter , the tool is needed.SUN-MI-RELAY-01. Verbinden Sie abschließende den AC-Stecker mit der Steckdose im Haushalt.
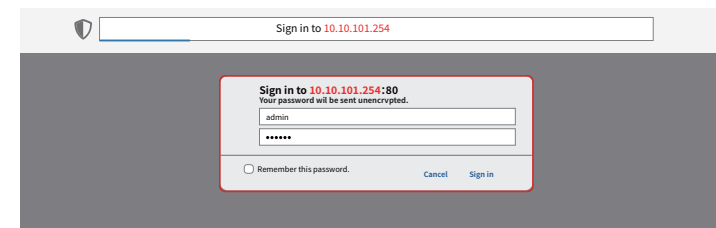
## Technical Data

| Model:SUN-MI-RELAY-01 | Network and System Protection Device |
|---|---|
| **AC Intput Data(Inverter)** | |
| Nominal Voltage | 220V/230V |
| Nominal Frequency | 50/60Hz |
| Max AC Current | 12A |
| Nominal AC Current | 12A |
| Nominal AC Current | Micro Inverter |
| **AC Output Data(Grid)** | |
| Nominal Voltage | 220V/230V |
| Nominal Frequency | 50/60Hz |
| Max AC Current | 12A |
| Nominal AC Current | 12A |
| **General Data** | |
| Ambient Temperature Range | -40-65 °C, >45°C derating |
| Humidity | 0%-100% RH |
| Cabinet Size (WxHxD) | 111mm x 95mmx x37.7mm (Excluding Connectors and Brackets) |
| Weight | 340g |
| Enclosure Environmental Rating | IP67 |
| Communication | Wireless/Wifi |
| Safety EMC / Standard | IEC/EN 6100-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2,VDE-AR-N 4105 |
| **WiFi information:** | |
| Frequency range | 2.412~2.472GHz |
| WiFi maximum transmitting power | 17dBm ± 1.5dBm |
| Antenna | External Antenna |
| Antenna Gain | 3dBi |

## How to connect the SUN-MI-RELAY-01 to the Micro Inverter via web

1. Turn on the wireless network of your PC or smartphone.
2. Select network of SUN-MI-RELAY-01 (network name: RE_3985266017) and the default password of the network is listed on the nameplate of PWD: "5c4db8d6" .
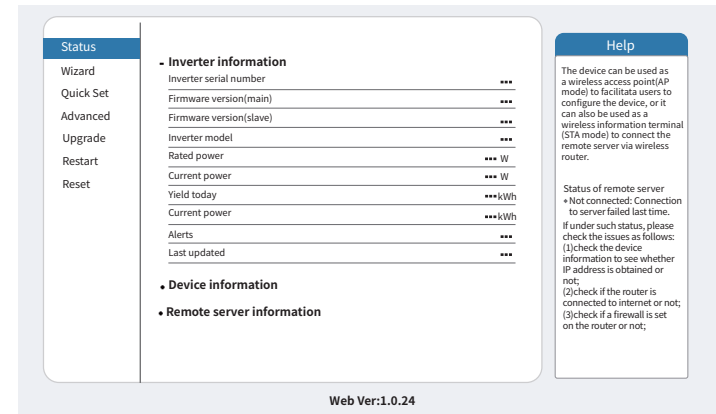
**Wi-Fi**

Personal Hotspots

Known Network
- 🛜 deye-d3 🔒

Other Network
- 🛜 RE_3985266017 🔒
- 🛜 wifi_test
- 🛜 AP_2368927426 🔒

Wi-Fi Settings...

The Wi-Fi network "RE_3985266017" requires a WPA2 password.
You can also access this Wi-Fi network by sharing the password from a nearby iPhone, iPad, or Mac which has connected to this network and has you in their contacts.

Password: ●●●●●●●
☐ Show Password

Cancel    Join

3. Open a browser and enter 10.10.101.254. Both username and password are "admin".(Recommended browser: IE 8+, Chrome 15+, Firefox 10 + ).

Sign in to 10.10.101.254

Sign in to 10.10.101.254:80
Your password wil be sent unencrvpted.

admin

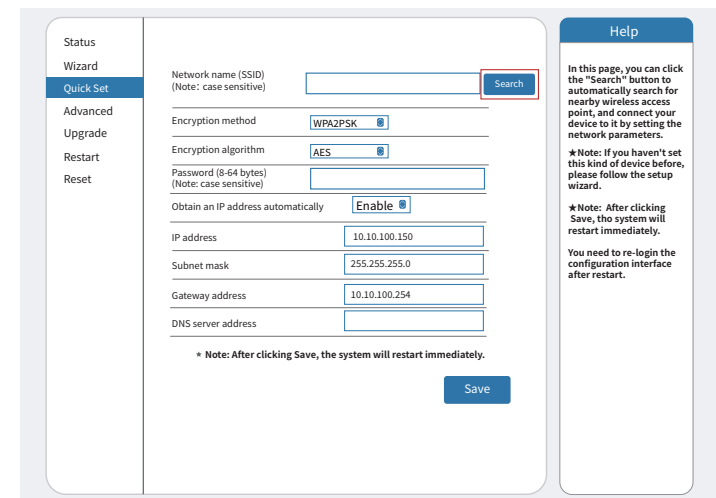☐ Remember this password.    Cancel    Sign in

If can't access the 10.10.101.254 for a long while, please disconnect the AC and then waiting for 5S and try again.

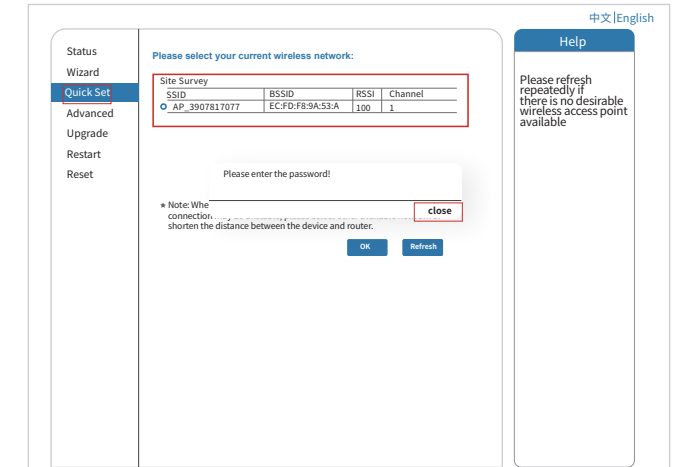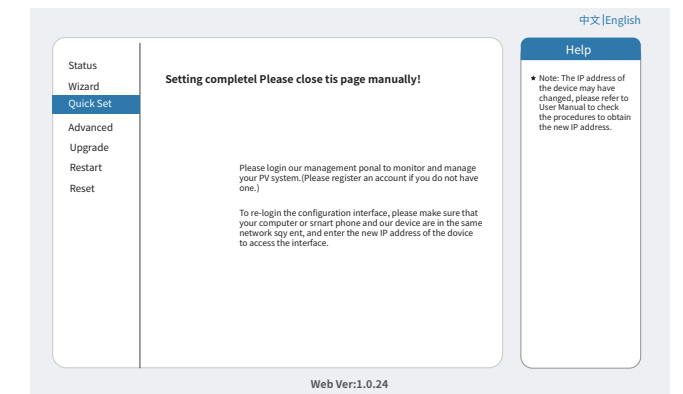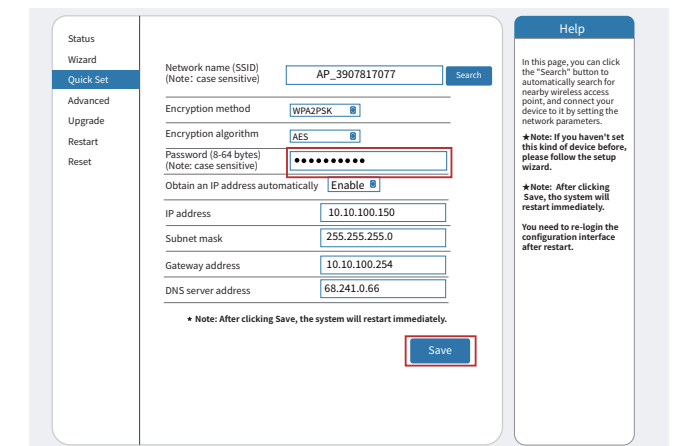4. Browser jumps to "Status" page, the basic information is listed there.

Status
Wizard
Quick Set
Advanced
Upgrade
Restart
Reset

**Inverter information**
- Inverter serial number ···
- Firmware version(main) ···
- Firmware version(slave) ···
- Inverter model ···
- Rated power ··· W
- Current power ··· W
- Yield today ···kWh
- Current power ···kWh
- Alerts ···
- Last updated ···

**Device information**
**Remote server information**

**Help**
The device can be used as a wireless access point(AP mode) to configure the device, or it can also be used as a wireless information terminal (STA mode) to connect the remote server via wireless router.

Status of remote server
• Not connected: Connection to server failed last time.
If under such status, please check the issues as follows:
(1)check the device information to see whether IP address is obtained or not;
(2)check if the router is connected to internet or not;
(3)check if a firewall is set on the router or not;

Web Ver:1.0.24

5. Click to enter the "Quick Set" page and click the "Search" button to start searching for network hotspots near the NS protection device.

Status
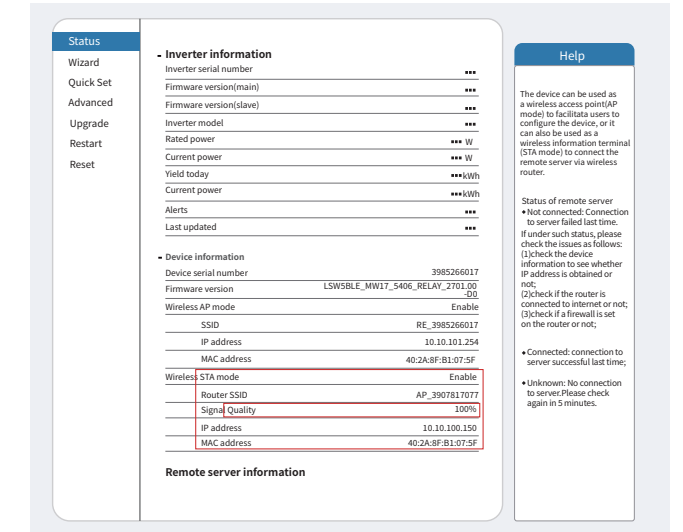Wizard
Quick Set
Advanced
Upgrade
Restart
Reset

Network name (SSID) (Note: case sensitive)    Search

Encryption method    WPA2PSK
Encryption algorithm    AES
Password (8-64 bytes) (Note: case sensitive)
Obtain an IP address automatically    Enable
IP address    10.10.100.150
Subnet mask    255.255.255.0
Gateway address    10.10.100.254
DNS server address

• Note: After clicking Save, the system will restart immediately.

Save

**Help**
In this page, you can click the "Search" button to automatically search for nearby wireless access point, and connect your device to it by setting the network parameters.
★Note: If you haven't set this kind of device before, please follow the setup wizard.
★Note: After clicking Save, the system will restart immediately.
You need to re-login the configuration interface after restart.

6. Click to select your micro-inverter's WLAN hotspot and enter the inverter hotspot password.

中文 |English

Status
Wizard
Quick Set
Advanced
Upgrade
Restart
Reset

Please select your current wireless network:

Site Survey
| SSID | BSSID | RSSI | Channel |
|---|---|---|---|
| ○ AP_3907817077 | EC:FD:F8:9A:53:A | 100 | 1 |

Please enter the password!

★Note: When connection, shorten the distance between the device and router.    close

OK    Refresh

**Help**
Please refresh repeatedly if there is no desirable wireless access point available

7. The default password of the AP network is 12345678 if there's no nameplate that includes PWD: XXXXXXXX on the inverter body. If there's nameplate that includes PWD: XXXXXXXX on the inverter body then the AP network password is the "XXXXXXXX" .

Status
Wizard
Quick Set
Advanced
Upgrade
Restart
Reset

Network name (SSID) (Note: case sensitive)    AP_3907817077    Search
Encryption method    WPA2PSK
Encryption algorithm    AES
Password (8-64 bytes) (Note: case sensitive)    ●●●●●●●●●●
Obtain an IP address automatically    Enable
IP address    10.10.100.150
Subnet mask    255.255.255.0
Gateway address    10.10.100.254
DNS server address    68.241.0.66

• Note: After clicking Save, the system will restart immediately.

Save

**Help**
In this page, you can click the "Search" button to automatically search for nearby wireless access point, and connect your device to it by setting the network parameters.
★Note: If you haven't set this kind of device before, please follow the setup wizard.
★Note: After clicking Save, the system will restart immediately.
You need to re-login the configuration interface after restart.

中文 |English

Status
Wizard
Quick Set
Advanced
Upgrade
Restart
Reset

Setting completel Please close tis page manually!

Please login our management ponal to monitor and manage your PV system.(Please register an account if you do not have one.)

To re-login the configuration interface, please make sure that your computer or smart phone and our device are in the same network sgy ent, and enter the new IP address of the dovice to access the interface.

**Help**
★Note: The IP address of the device may have changed, please refer to User Manual to check the procedures to obtain the new IP address.

Web Ver:1.0.24

8. Click to enter the Status page,You can view the current connection information on the Device information page.if you need help, Please contact Deye's official after-sales service or authorized service provider.

Status
Wizard
Quick Set
Advanced
Upgrade
Restart
Reset

**Inverter information**
- Inverter serial number ···
- Firmware version(main) ···
- Firmware version(slave) ···
- Inverter model ···
- Rated power ··· W
- Current power ··· W
- Yield today ···kWh
- Current power ···kWh
- Alerts ···
- Last updated ···

**Device information**
- Device serial number    3985266017
- Firmware version    LSW5BLE_MW17_5406_RELAY_2701.00-00
- Wireless AP mode    Enable
- SSID    RE_3985266017
- IP address    10.10.101.254
- MAC address    40:2A:8F:B1:07:5F
- Wireless STA mode    Enable
- Router SSID    AP_3907817077
- Signal Quality    100%
- IP address    10.10.100.150
- MAC address    40:2A:8F:B1:07:5F

**Remote server information**

**Help**
The device can be used as a wireless access point(AP mode) to facilitate users to configure the device, or it can also be used as a wireless information terminal (STA mode) to connect the remote server via wireless router.

Status of remote server
• Not connected: Connection to server failed last time.
If under such status, please check the issues as follows:
(1)check the device information to see whether IP address is obtained or not;
(2)check if the router is connected to internet or not;
(3)check if a firewall is set on the router or not;

• Connected: connection to server successful last time;

• Unknown: No connection to server.Please check again in 5 minutes.

## SAFETY

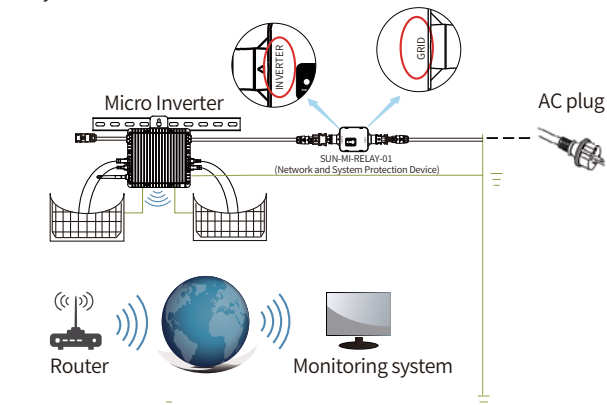**IMPORTANT SAFETY INSTRUCTIONS.**
**SAVE THIS INFORMATION.**

Follow all safety and assembly instructions when installing the SUN-MI-RELAY-01 (Network and System Protection Device).
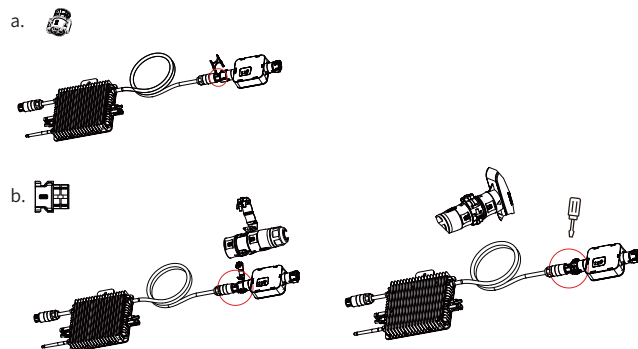
### Safety Instructions

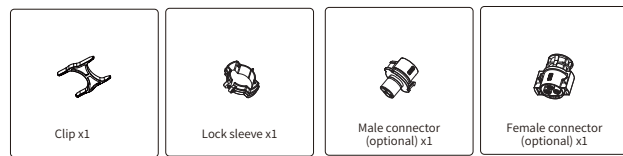| | |
|---|---|
| Can be OEM | Trademark. |
| ⚡ | Caution, risk of electric shock. |
| ⚠ | Caution, risk of burn - Do not touch. |
| 🔥 | Caution, hot surface. |
| ♻ | Symbol for the marking of electrical and electronics devices according to Directive 2002/96/EC. Indicates that the device, accessories 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 | CE mark is attached to the solar inverter to verify that the unit follows the provisions of the European RED Directives. |
| 📖 | Refer to the operating instructions |
| Qualified personnel | 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. |

## INTRODUCTION

SUN-MI-RELAY-01 (Network and System Protection Device) : it is used to monitoring and disconnect the grid when sensing the grid voltage/frequeny is out of the allowed range. The relay kit also is able to reconnect grid when the grid condtions resume. It must communicate with the built-in wifi module of the Micro Inverter, the Micro Inverter can work normally, otherwise the Micro Inverter can not work.The localhost of this relay kit is 10.10.101.254.

Micro Inverter — SUN-MI-RELAY-01 (Network and System Protection Device) — AC plug

Router — Monitoring system

This device package contains two types of Female connectors and one type of Male connector. Please choose the appropriate connector for connection according to the actual situation.
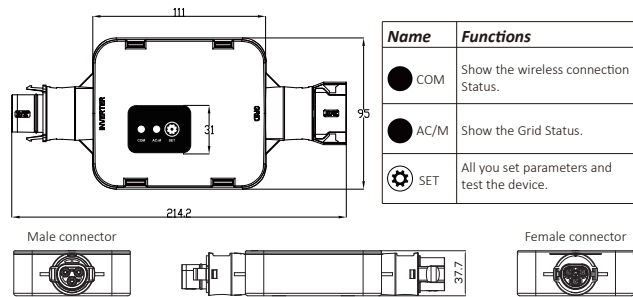
a.

b.

## Parts list

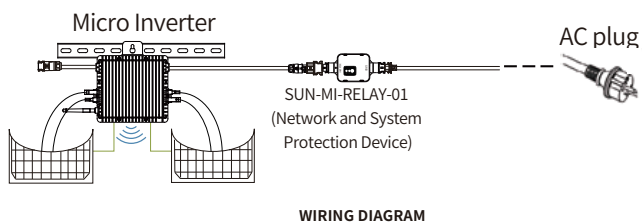| Clip x1 | Lock sleeve x1 | Male connector (optional) x1 | Female connector (optional) x1 |
|---|---|---|---|

NOTE: For the connection between SUN-MI-Relay-01( Network and System Protection Device) andMicro Inverter , the tool(screwdriver) is needed.

WARNING: The Micro Inverter SUN600G3-EU-230, SUN800G3-EU-230, SUN1000G3-EU-230 shall not be put into operation without external relay kit SUN-MI-RELAY-01.

Male connector — Female connector

| Name | Functions |
|---|---|
| COM | Show the wireless connection Status. |
| AC/M | Show the Grid Status. |
| SET | All you set parameters and test the device. |

## INSTALLATION

Micro Inverter — SUN-MI-RELAY-01 (Network and System Protection Device) — AC plug

**WIRING DIAGRAM**

Before the installation, please turn off the the DC and AC of the microiverter and wait for 5mins then start to operate.

The SUN-MI-Relay-01 (Network and System Protection Device) supports fast plug connection. It is equipped with quick plug terminals which is compatible with all Deye microinverters(for the G3 series, it needs install another adapter). Firstly, Plug the male connector of SUN-MI-RELAY-01 to the female connector of Micro Inverter . Then plug the female connector of SUN-MI-RELAY-01 to the male connector of AC plug. At last, connect the AC plug go to the plug board of household.
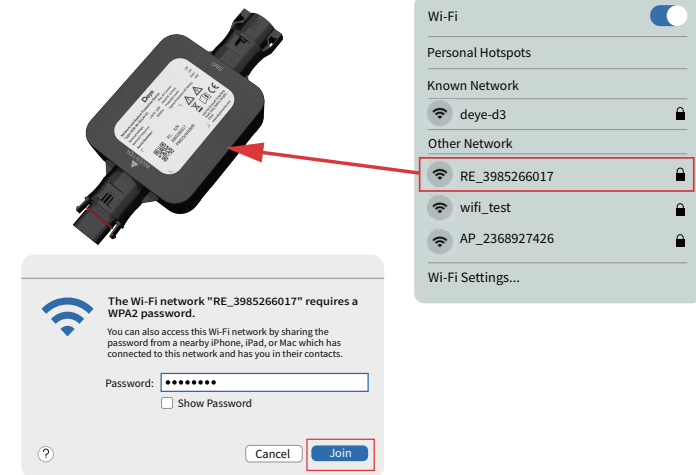
Note: For the connection between SUN-MI-Relay-01(Network and System Protection Device) and Micro Inverter , the tool is needed.SUN-MI-RELAY-01. Verbinden Sie abschließende den AC-Stecker mit der Steckdose im Haushalt.
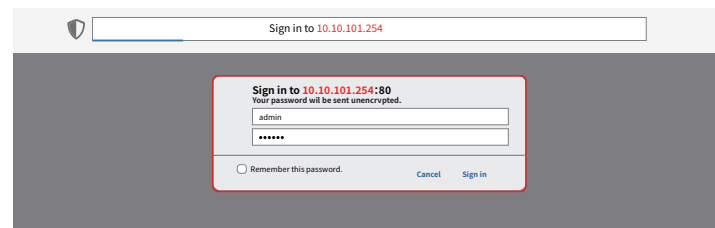
## Technical Data

| Model:SUN-MI-RELAY-01 | Network and System Protection Device |
|---|---|
| **AC Intput Data(Inverter)** | |
| Nominal Voltage | 220V/230V |
| Nominal Frequency | 50/60Hz |
| Max AC Current | 12A |
| Nominal AC Current | 12A |
| Nominal AC Current | Micro Inverter |
| **AC Output Data(Grid)** | |
| Nominal Voltage | 220V/230V |
| Nominal Frequency | 50/60Hz |
| Max AC Current | 12A |
| Nominal AC Current | 12A |
| **General Data** | |
| Ambient Temperature Range | -40-65 °C, >45°C derating |
| Humidity | 0%-100% RH |
| Cabinet Size (WxHxD) | 111mm x 95mmx x37.7mm (Excluding Connectors and Brackets) |
| Weight | 340g |
| Enclosure Environmental Rating | IP67 |
| Communication | Wireless/Wifi |
| Safety EMC / Standard | IEC/EN 6100-6-1/2/3/4, IEC/EN 62109-1, IEC/EN 62109-2,VDE-AR-N 4105 |
| **WiFi information:** | |
| Frequency range | 2.412~2.472GHz |
| WiFi maximum transmitting power | 17dBm ± 1.5dBm |
| Antenna | External Antenna |
| Antenna Gain | 3dBi |

### How to connect the SUN-MI-RELAY-01 to the Micro Inverter via web

1. Turn on the wireless network of your PC or smartphone.
2. Select network of SUN-MI-RELAY-01 (network name: RE_3985266017) and the default password of the network is listed on the nameplate of PWD: "5c4db8d6".
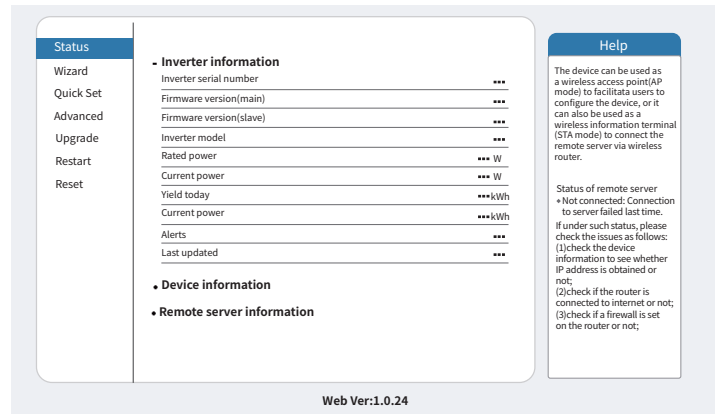
The Wi-Fi network "RE_3985266017" requires a WPA2 password.

You can also access this Wi-Fi network by sharing the password from a nearby iPhone, iPad, or Mac which has connected to this network and has you in their contacts.

Password: ●●●●●●●●
☐ Show Password

Cancel Join

3. Open a browser and enter 10.10.101.254. Both username and password are "admin".(Recommended browser: IE 8+, Chrome 15+, Firefox 10 + ).

Sign in to 10.10.101.254

Sign in to 10.10.101.254:80
Your password will be sent unencrypted.
admin
●●●●●●
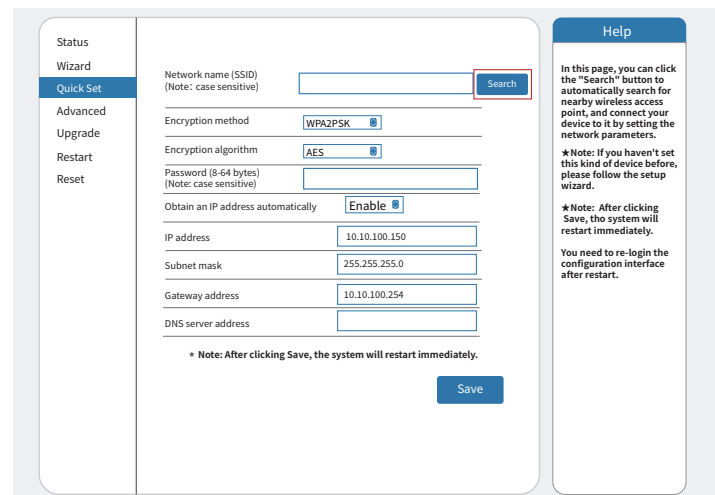☐ Remember this password.    Cancel    Sign in

If can't access the 10.10.101.254 for a long while, please disconnect the AC and then waiting for 5S and try again.

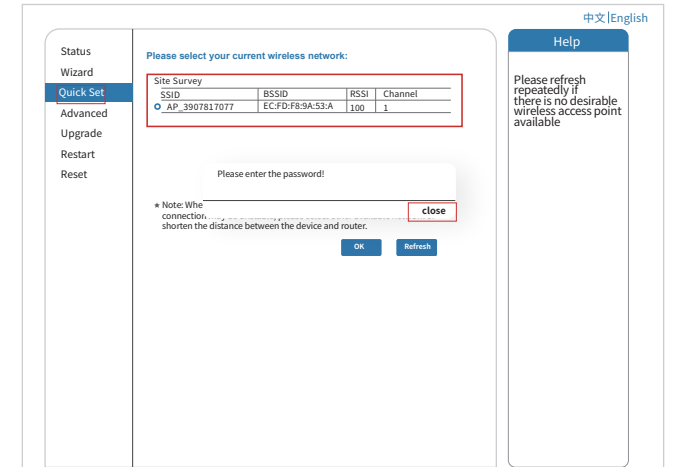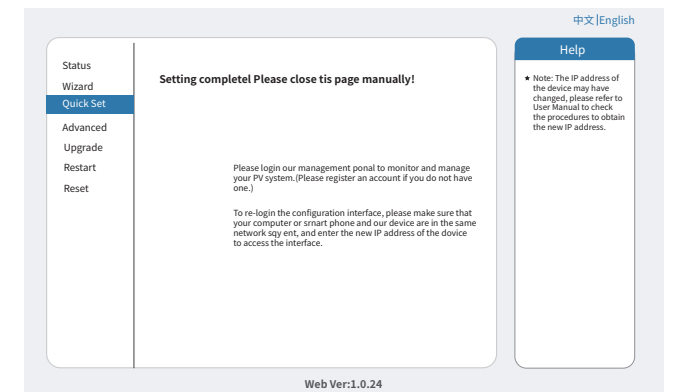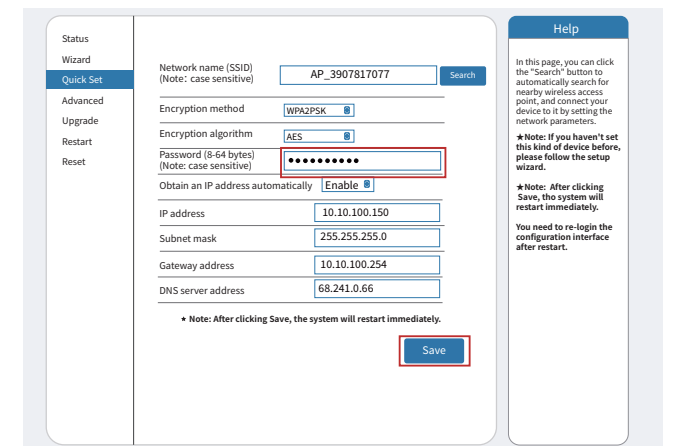4. Browser jumps to "Status" page, the basic information is listed there.

**Status**
Wizard
Quick Set
Advanced
Upgrade
Restart
Reset

- Inverter information
Inverter serial number ●●●
Firmware version(main) ●●●
Firmware version(slave) ●●●
Inverter model ●●●
Rated power ●●● W
Current power ●●● W
Yield today ●●●kWh
Current power ●●●kWh
Alerts ●●●
Last updated ●●●

- Device information
- Remote server information

**Help**
The device can be used as a wireless access point(AP mode) to configure the device, or it can also be used as a wireless information terminal (STA mode) to connect the remote server via wireless router.

Status of remote server
• Not connected: Connection to server failed last time.
If under such status, please check the issues as follows:
(1)check the device information to see whether IP address is obtained or not;
(2)check if the router is connected to internet or not;
(3)check if a firewall is set on the router or not;

**Web Ver:1.0.24**

5. Click to enter the "Quick Set" page and click the "Search" button to start searching for network hotspots near the NS protection device.

Status
Wizard
**Quick Set**
Advanced
Upgrade
Restart
Reset

Network name (SSID) (Note: case sensitive)    [Search]
Encryption method    WPA2PSK
Encryption algorithm    AES
Password (8-64 bytes) (Note: case sensitive)
Obtain an IP address automatically    Enable
IP address    10.10.100.150
Subnet mask    255.255.255.0
Gateway address    10.10.100.254
DNS server address

• Note: After clicking Save, the system will restart immediately.

[Save]

**Help**
In this page, you can click the "Search" button to automatically search for nearby wireless access point, and connect your device to it by setting the network parameters.
★Note: If you haven't set this kind of device before, please follow the setup wizard.
★Note: After clicking Save, the system will restart immediately.
You need to re-login the configuration interface after restart.

6. Click to select your micro-inverter's WLAN hotspot and enter the inverter hotspot password.

中文 |English

Status
Wizard
**Quick Set**
Advanced
Upgrade
Restart
Reset

**Help**
Please refresh repeatedly if there is no desirable wireless access point available

Please select your current wireless network:

Site Survey

| SSID | BSSID | RSSI | Channel |
|---|---|---|---|
| ○ AP_3907817077 | EC:FD:F8:9A:53:A | 100 | 1 |

Please enter the password!

* Note: When connection... shorten the distance between the device and router.    [close]

[OK]    [Refresh]

7. The default password of the AP network is 12345678 if there's no nameplate that includes PWD: XXXXXXXX on the inverter body. If there's nameplate that includes PWD: XXXXXXXX on the inverter body then the AP network password is the "XXXXXXXX".

Status
Wizard
**Quick Set**
Advanced
Upgrade
Restart
Reset

**Help**
In this page, you can click the "Search" button to automatically search for nearby wireless access point, and connect your device to it by setting the network parameters.
★Note: If you haven't set this kind of device before, please follow the setup wizard.
★Note: After clicking Save, the system will restart immediately.
You need to re-login the configuration interface after restart.

Network name (SSID) (Note: case sensitive)    AP_3907817077    [Search]
Encryption method    WPA2PSK
Encryption algorithm    AES
Password (8-64 bytes) (Note: case sensitive)    ●●●●●●●●●●
Obtain an IP address automatically    Enable
IP address    10.10.100.150
Subnet mask    255.255.255.0
Gateway address    10.10.100.254
DNS server address    68.241.0.66

• Note: After clicking Save, the system will restart immediately.

[Save]

中文 |English

Status
Wizard
**Quick Set**
Advanced
Upgrade
Restart
Reset

**Help**
• Note: The IP address of the device may have changed, please refer to User Manual to check the procedures to obtain the new IP address.

Setting completel Please close tis page manually!

Please login our management ponal to monitor and manage your PV system.(Please register an account if you do not have one)

To re-login the configuration interface, please make sure that your computer or smart phone and our device are in the same network sqy ent, and enter the new IP address of the dovice to access the interface.

**Web Ver:1.0.24**

8. Click to enter the Status page,You can view the current connection information on the Device information page.if you need help，Please contact Deye's official after-sales service or authorized service provider.

**Status**
Wizard
Quick Set
Advanced
Upgrade
Restart
Reset

- Inverter information
Inverter serial number ●●●
Firmware version(main) ●●●
Firmware version(slave) ●●●
Inverter model ●●●
Rated power ●●● W
Current power ●●● W
Yield today ●●●kWh
Current power ●●●kWh
Alerts ●●●
Last updated ●●●

- Device information
Device serial number    3985266017
Firmware version    LSW5BLE_MW17_5406_RELAY_2701.00 _00
Wireless AP mode    Enable
SSID    RE_3985266017
IP address    10.10.101.254
MAC address    40:2A:8F:B1:07:5F
Wireless STA mode    Enable
Router SSID    AP_3907817077
Signal Quality    100%
IP address    10.10.100.150
MAC address    40:2A:8F:B1:07:5F

**Remote server information**

**Help**
The device can be used as a wireless access point(AP mode) to facilitata users to configure the device, or it can also be used as a wireless information terminal (STA mode) to connect the remote server via wireless router.

Status of remote server
• Not connected: Connection to server failed last time.
If under such status, please check the issues as follows:
(1)check the device information to see whether IP address is obtained or not;
(2)check if the router is connected to internet or not;
(3)check if a firewall is set on the router or not;

• Connected: connection to server successful last time;

• Unknown: No connection to server.Please check again in 5 minutes.

Wi-Fi
Personal Hotspots
Known Network
🛜 deye-d3 🔒
Other Network
🛜 RE_3985266017 🔒
🛜 wifi_test
🛜 AP_2368927426 🔒
Wi-Fi Settings...

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