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

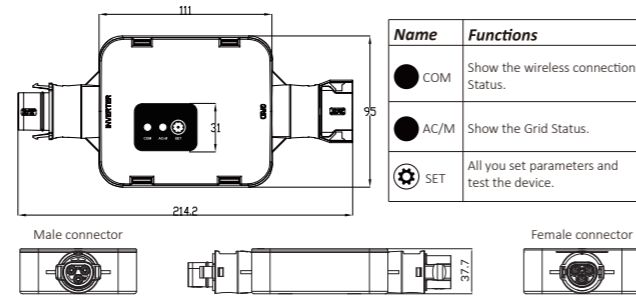| Can be OEM	Trademark.
⚡	Caution, risk of electric shock.
⚠	Caution, risk of burn - Do not touch.
🔥	Caution, hot surface.
🗑	Symbol for the marking of electrical and electronics devices according to Directive 2002/96/EC. Indicates that the device, accessories and the packaging must not be disposed as 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 Low Voltage and EMC 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 conditions resume. It must communicate with the built-in wifi module of the Microinverter, the Microinverter can work normally, otherwise the Microinverter 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)
Microinverter
Router
Monitoring system

a.

b.

Parts list

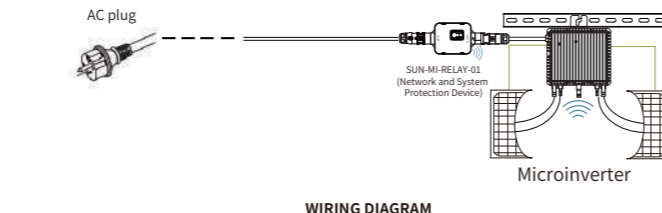| Clip x1	Lock sleeve x1	Male connector (optional) x1	Female connector (optional) x1

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

WARNINGThe Microinverter SUN-M60G3-EU-Q0, SUN-M80G3-EU-Q0, SUN-M100 G3-EU-Q0 shall not be put into operation without external relay kit SUN-MI-RELAY -01.

111
95
31
214.2

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

37.7

Female connector

INSTALLATION

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

WIRING DIAGRAM

Before the installation, please turn off the the DC and AC of the microinverter 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.
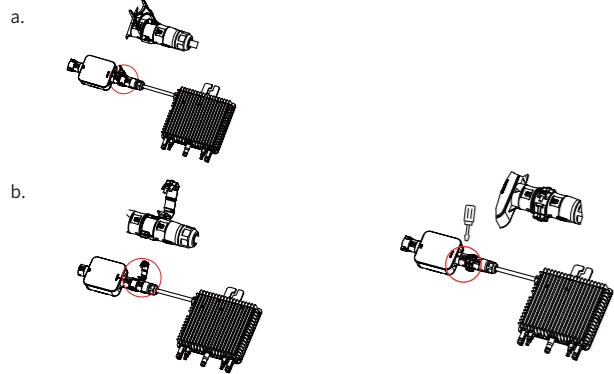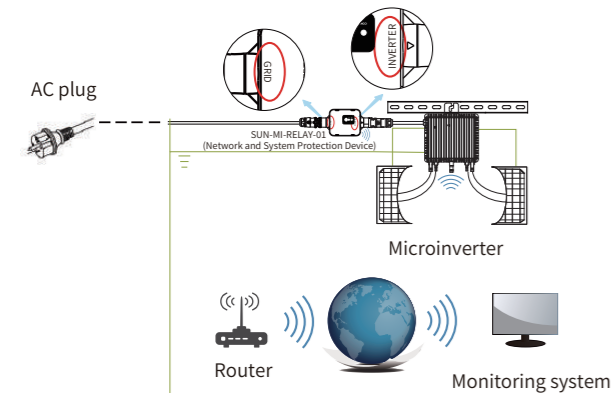
Note：For the connection between SUN-MI-Relay-01(Network and System Protection Device) and Microinverter , the tool is needed.SUN-MI-RELAY-01. Verbinden Sie abschließende den AC-Stecker mit der Steckdose im Haushalt.

Technical Data

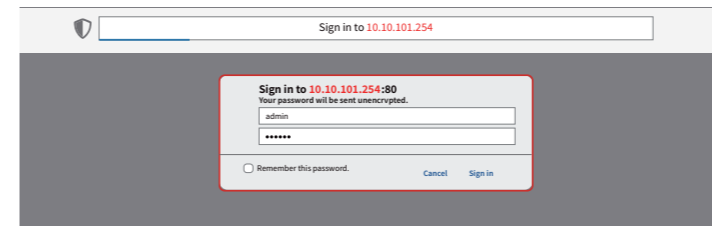| Model:SUN-MI-RELAY-01	Network and System Protection Device
AC Intput Data(Inverter)	
Nominal Voltage	220V/230V
Nominal Frequency	50/60Hz
Max AC Current	12A
Nominal AC Current	12A
Nominal AC Current	Microinverter
AC Output Data(Grid)	
Nominal Voltage	220V/230V
Nominal Frequency	50/60Hz
Max AC Current	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 microinverter 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: "5c4db8d 6" .
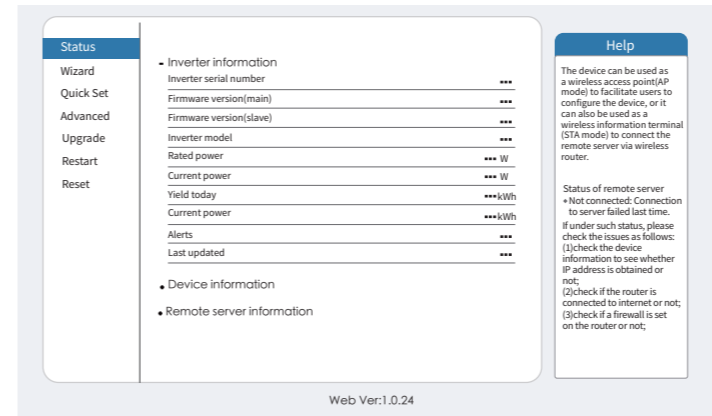
Wi-Fi
Personal Hotspots
Known Network
deye-d3
Other Network
RE_3985266017
wifi_test
AP_2368927426
Wi-Fi Settings...

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 will be sent unencrypted.
admin
●●●●●●
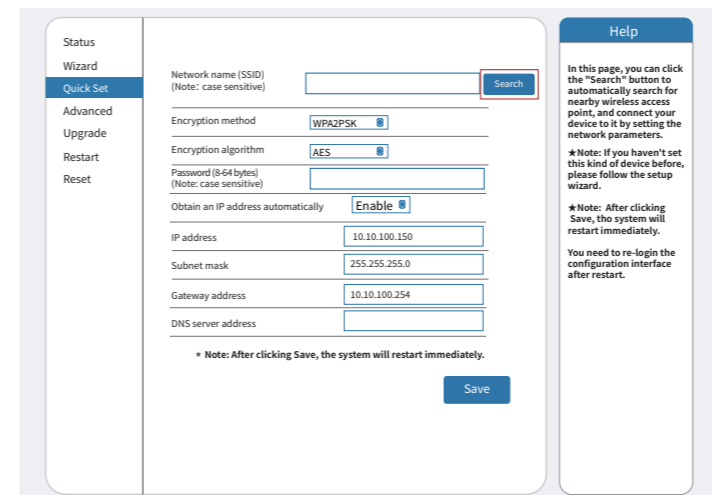☐ Remember this password.
Cancel   Sign in

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.

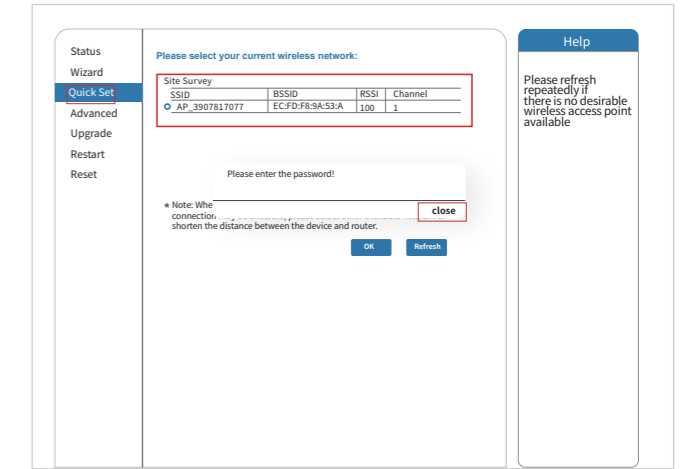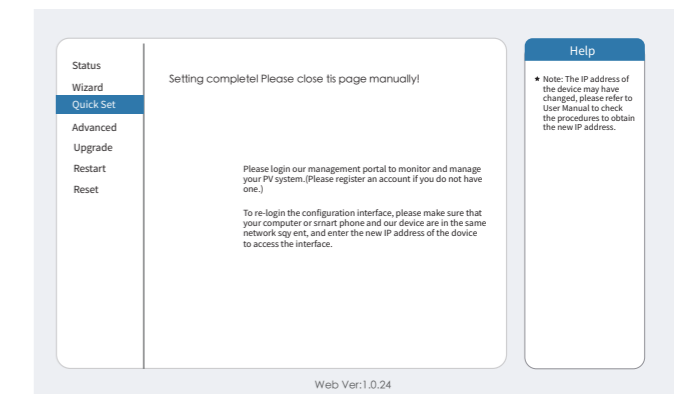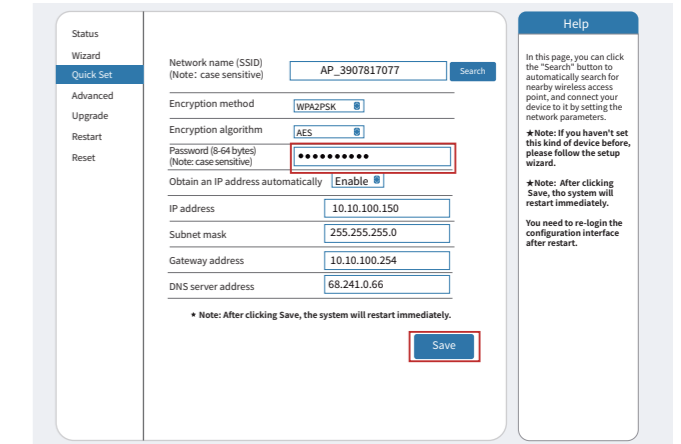4. Browser jumps to "Status" page, the basic information is listed there.

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 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;

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.
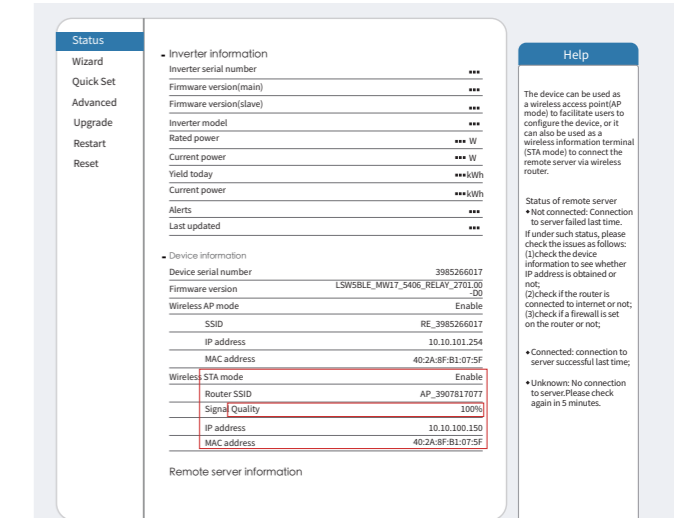
Status	
Wizard	
Quick Set	
Advanced	
Upgrade	
Restart	
Reset	

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 microinverter WLAN hotspot and enter the inverter hotspot password.

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: Whe... 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 initial WLAN network name and password of the inverter are both affixed to the inverter nameplate.Click SAVE the communication connection will be completed.

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.

Status	
Wizard	
Quick Set	
Advanced	
Upgrade	
Restart	
Reset	

Setting complete! Please close tis page manually!

Please login our management portal 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 say ent, and enter the new IP address of the device 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_MW1T_5406_RELAY_2701.00-D0
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

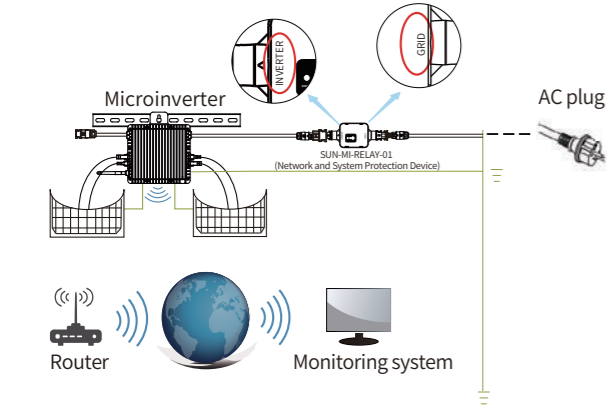**IMPORTANT SAFETY INSTRUCTIONS.**
SAVE THIS INFORMATION.

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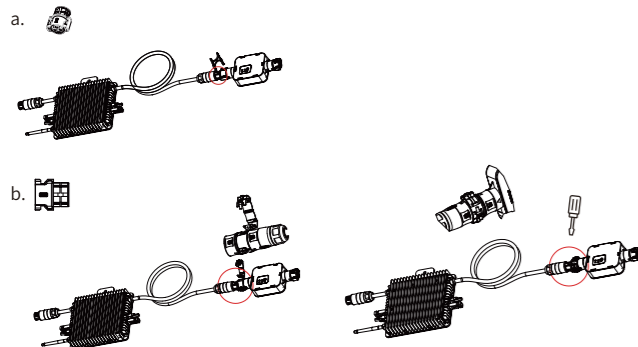
Safety Instructions

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 2009/96/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 Low Voltage and EMC 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 conditions resume. It must communicate with the built-in wifi module of the Microinverter, the Microinverter can work normally, otherwise the Microinverter can not work.The localhost of this relay kit is 10.10.101.254.

Microinverter

AC plug

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

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.
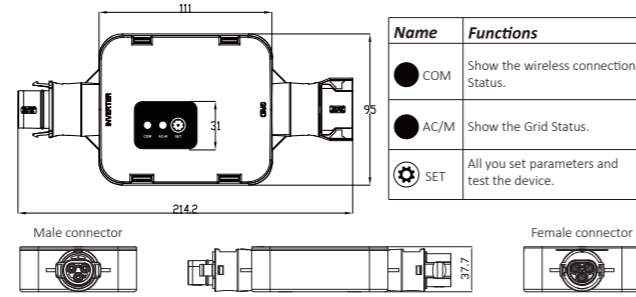
a.

b.

Parts list

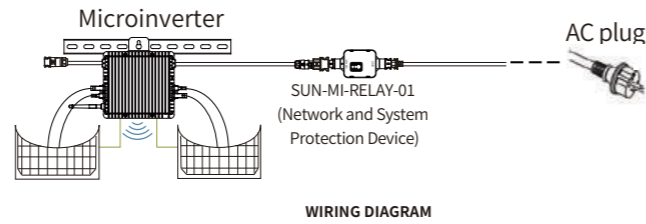| Clip x1	Lock sleeve x1	Male connector (optional) x1	Female connector (optional) x1

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

WARNING: The Microinverter SUN600G3-EU-230, SUN800G3-EU-230, SUN1000G3 -EU-230 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

Microinverter   AC plug

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

WIRING DIAGRAM

Before the installation, please turn off the the DC and AC of the microinverter 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 Microinverter , the tool is needed.SUN-MI-RELAY-01. Verbinden Sie abschließende den AC-Stecker mit der Steckdose im Haushalt
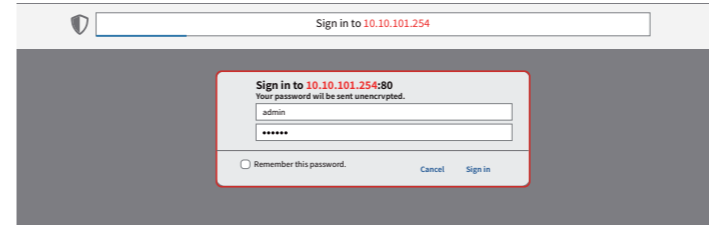
Technical Data

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	Microinverter
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 microinverter 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: "5c4db8d 6" .
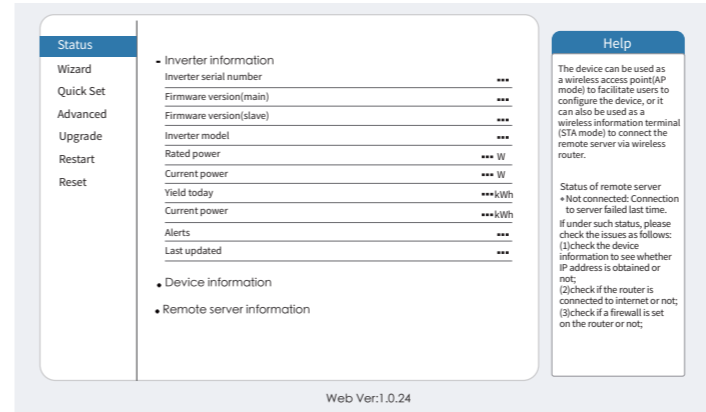
Wi-Fi
Personal Hotspots
Known Network
🛜 deye-d3
Other Network
🛜 RE_3985266017
🛜 wifi_test
🛜 AP_2368927426
Wi-Fi Settings...

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 will be sent unencrypted.
admin
●●●●●●
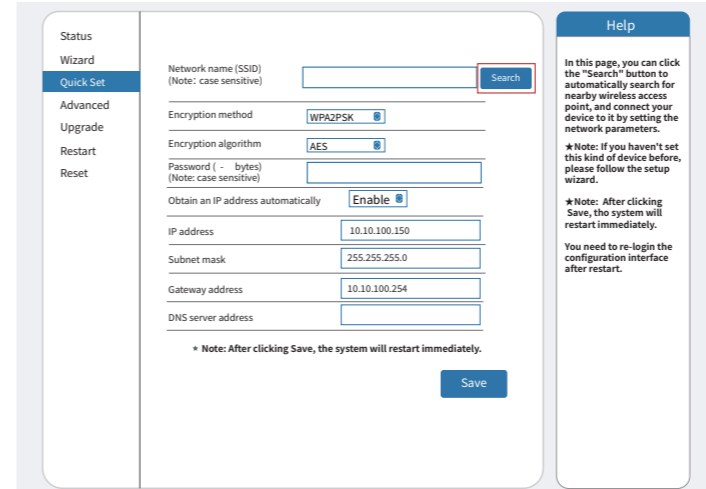☐ Remember this password.   Cancel   Sign in

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.

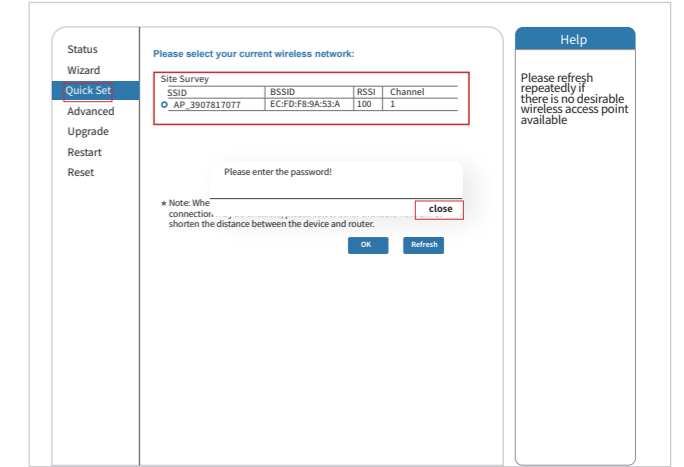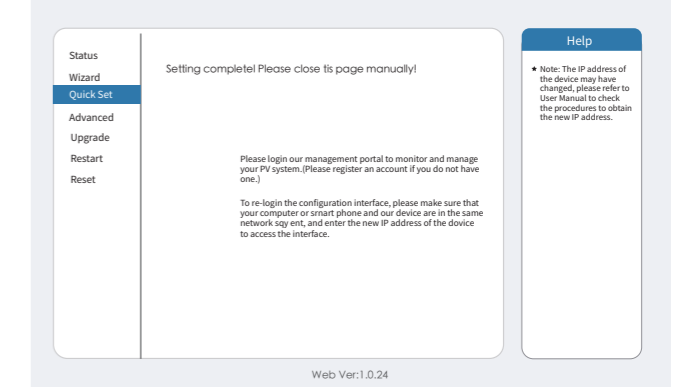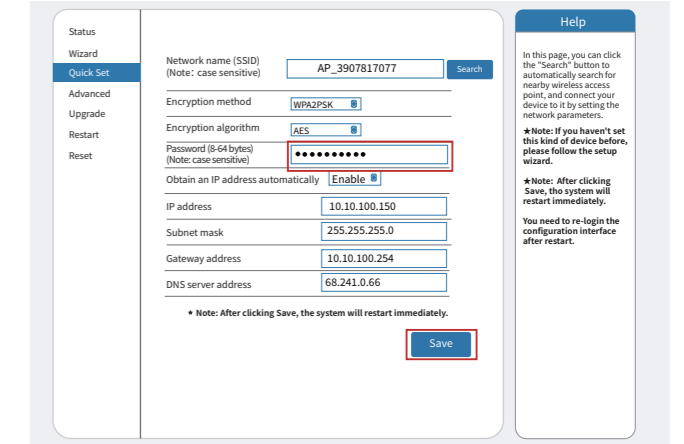4. Browser jumps to "Status" page, the basic information is listed there.

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 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;

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 (- 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 microinverter WLAN hotspot and enter the inverter hotspot password.

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 initial WLAN network name and password of the inverter are both affixed to the inverter nameplate.Click SAVE the communication connection will be completed

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.

Status
Wizard
Quick Set
Advanced
Upgrade
Restart
Reset

Setting complete! Please close tis page manually!

Please login our management portal 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 say ent, and enter the new IP address of the device 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.