FusionSolar App

Quick Guide (Charge)

Issue   01

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Contents

1 Registering a FusionSolar App Installer Account

An installer account is required for device deployment and commissioning. If you do not have an installer account of the FusionSolar SmartPVMS or FusionSolar app, perform the following steps to register an account.

Intended Audience

- Installers who have not registered a company with the FusionSolar SmartPVMS or FusionSolar app
- Owners who commission chargers by themselves

  📖 **NOTE**

  If your company has registered an account, contact the administrator to add you to the user list.

Procedure

1. Tap **No account?** in the lower part of the FusionSolar app login screen.
2. On the **Select role** screen, tap **I'm an installer** and register an account as prompted.

   After the account is registered, the user can log in to the FusionSolar app with the registered username and password.
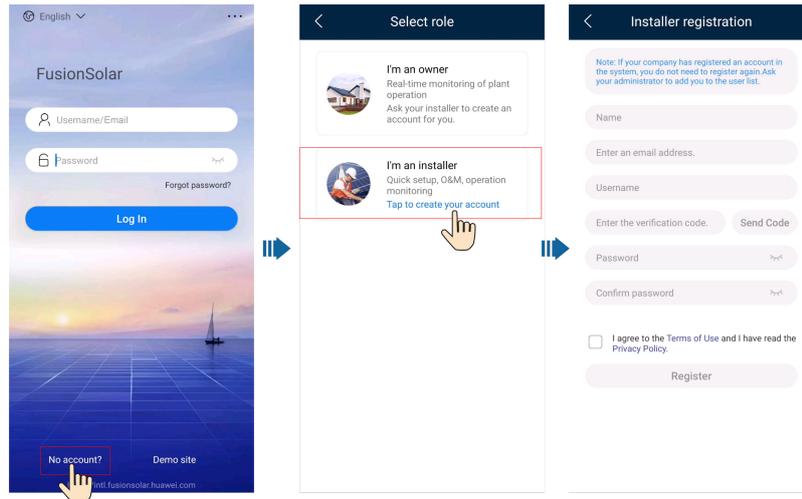
2 Logging In to or Logging Out of FusionSolar App

After the app is correctly installed on a mobile phone, you can access the management system through the app.

Logging In to the App

1. On the mobile device, tap the app icon to access the login screen.
2. On the app login screen, enter the account and password and tap **Log In**.
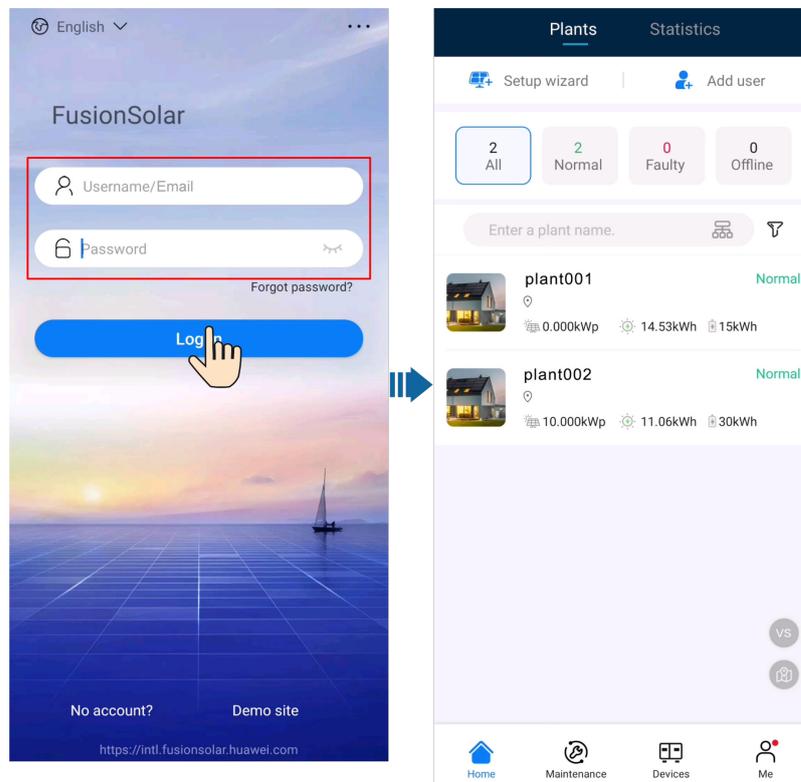
 NOTE

- If a new user logs in to the app for the first time or a user logs in to the app for the first time after the password is reset, change the login password as prompted.
- If a user enters incorrect passwords for five consecutive times within 5 minutes, the account will be locked for 30 minutes. The user can log in gain after the lockout period expires or contact the installer or administrator to unlock the account.

Logging Out of the App

1. On the home screen, tap **Me**.
2. On the **Me** screen, tap **Settings** > **Log out**.

3 Device Commissioning (Charger)

📖 **NOTE**

> Versions later than 6.23.00.157 support chargers and new functions. Update the app to the latest version before connecting to chargers.

The charger can connect to the DTSU666-FE meter or connect to the WLAN/FE Dongle in the PV system through a virtual meter to obtain RS485 meter detection data for dynamic control. Perform commissioning based on the actual networking scenarios of chargers, meters, and routers.

Figure 3-1 Charger FE port directly connected to a meter
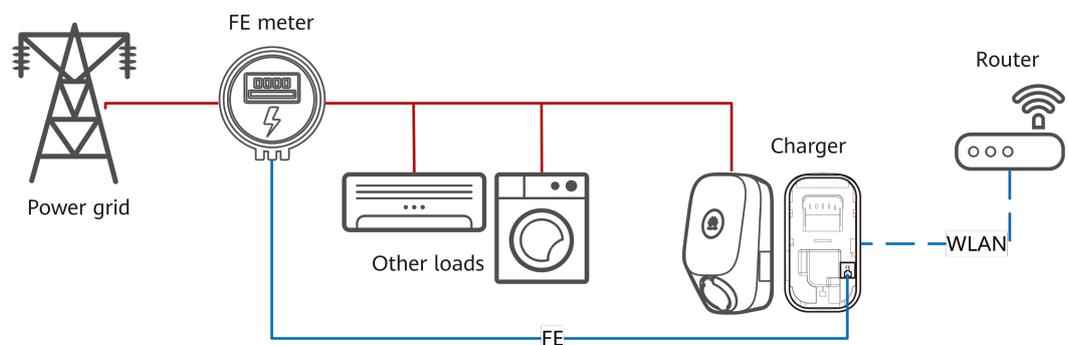
For details about the commissioning procedure, see **3.1 Charger FE Port Directly Connected to a Meter**.

Figure 3-2 Charger FE port directly connected to a router
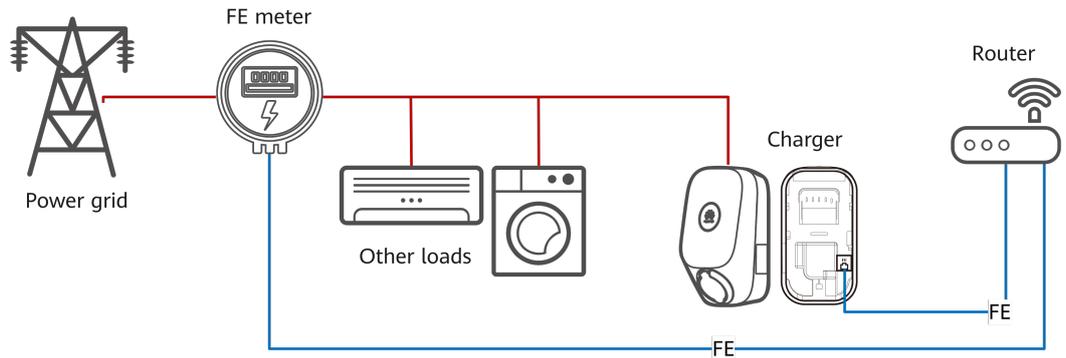
For details about the commissioning procedure, see **3.2 Charger FE Port Directly Connected to a Router**.

Figure 3-3 Charger connected to a router through WLAN
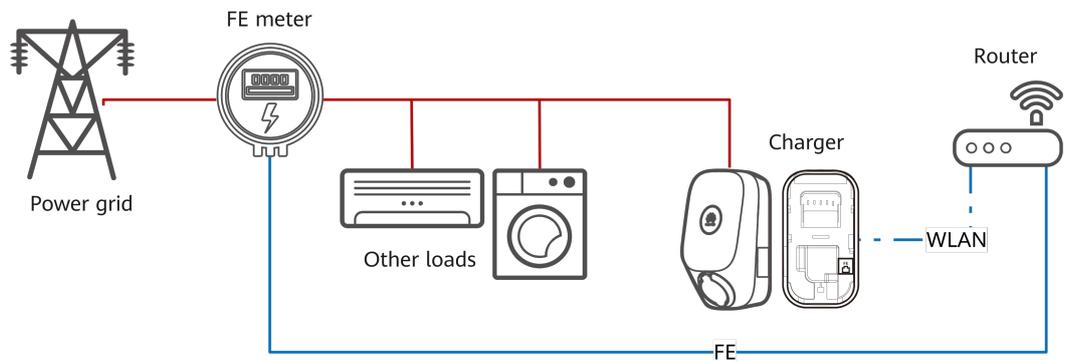
For details about the commissioning procedure, see **3.3 Charger Connected to a Router Through WLAN**.

Figure 3-4 Charger using a virtual meter
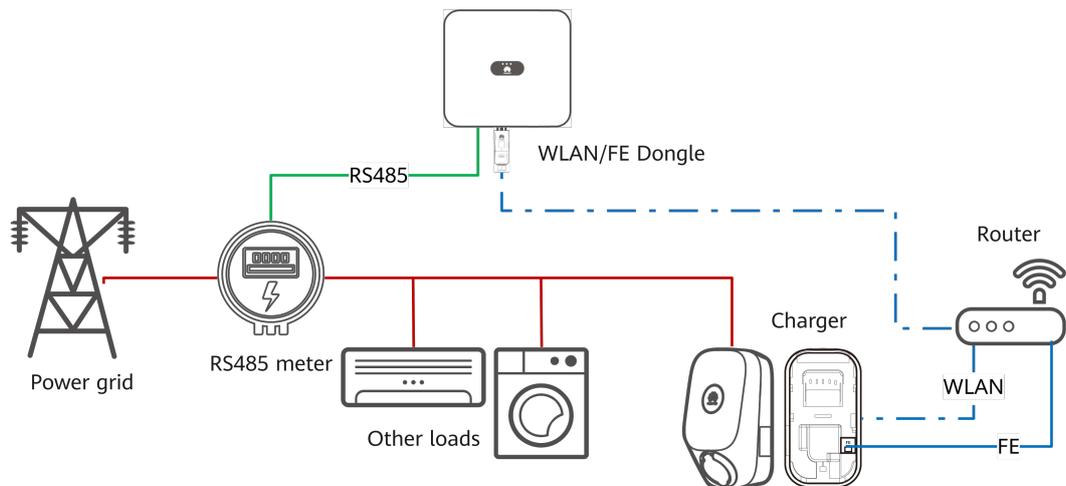
For details about the commissioning procedure, see **3.4 Charger Using a Virtual Meter**.

3.1 Charger FE Port Directly Connected to a Meter

1. Log in to the FusionSolar app as an installer, tap **Setup wizard** on the home screen, and scan the QR code of the charger.

📖 **NOTE**

- The last six digits of the product WLAN name are the same as the last six digits of the product SN.
- Use the initial password upon the first power-on and change the password immediately after login. To ensure account security, protect the password by changing it periodically, and keep it secure. Your password might be stolen or cracked if it is left unchanged for extended periods. If a password is lost, devices cannot be accessed. In these cases, the Company shall not be liable for any loss.

2. Log in to the app as an **Installer**.

← Log In

SN:XXXXXXXXXXXX

Installer   ▼

password   👁

Log In

📖 **NOTE**

For the first login, the initial password is **Changeme**. If the system prompts you to set a password, set the login password as prompted.

3. Commission the device according to the wizard procedure.

✕ Quick Settings

Parameter configuration ─── Device Management ─── Finish
Communication networking

Main Circuit Breaker Capacity — 60 A

Set the total capacity of the main circuit breaker.

Sync with Phone
Date, time, and time zone

Local Time Zone — GMT+8 ›

Maximum Charge Power — 22.0 kW

Set the maximum charge power, which cannot be greater than the rated charge power of the charger.

‹ Back   Next ›

✕ Quick settings

Device Management
...ter configuration   Communications N...

Device connection

Network Config

Connection mode — WLAN ▾

Select WLAN.

WLAN ›

Password 👁

Router Connection

Select the router you want to connect, enter the password, and tap Connect Router.

Add Device

PowerMeter — Online
xxx.xxx.xxx.xxx

If the meter is not displayed, tap Add Meter, enter the meter IP address, and manually add the meter.

‹ BACK   NEXT ›

✕ Quick Settings

Parameter configuration ─── Device Management ─── Finish
Communication networking

☑ I have been authorized by the user to connect to the management system.

Management System Parameters

Domain Name — solarcharge.opowercloud.huawei.com

Port — 31220

Set the Domain name to solarcharge.opowercloud.huawei.com and Port number to 31220.

If the network is not ready, skip this step.

‹ Back   Next ›

✕ Quick settings

Device Management
Parameter configuration   Commun...

Connectivity

Device info

Power meter status — Online

‹ BACK   COMPLETE

📖 **NOTE**

Set the capacity of the main circuit breaker based on site requirements. If the set value is greater than the actual capacity, the circuit breaker trips due to overcurrent. If the capacity of the circuit breaker is too low, the charger cannot work.

3.2 Charger FE Port Directly Connected to a Router

1. Log in to the FusionSolar app as an installer, tap **Setup wizard** on the home screen, and scan the QR code of the charger.
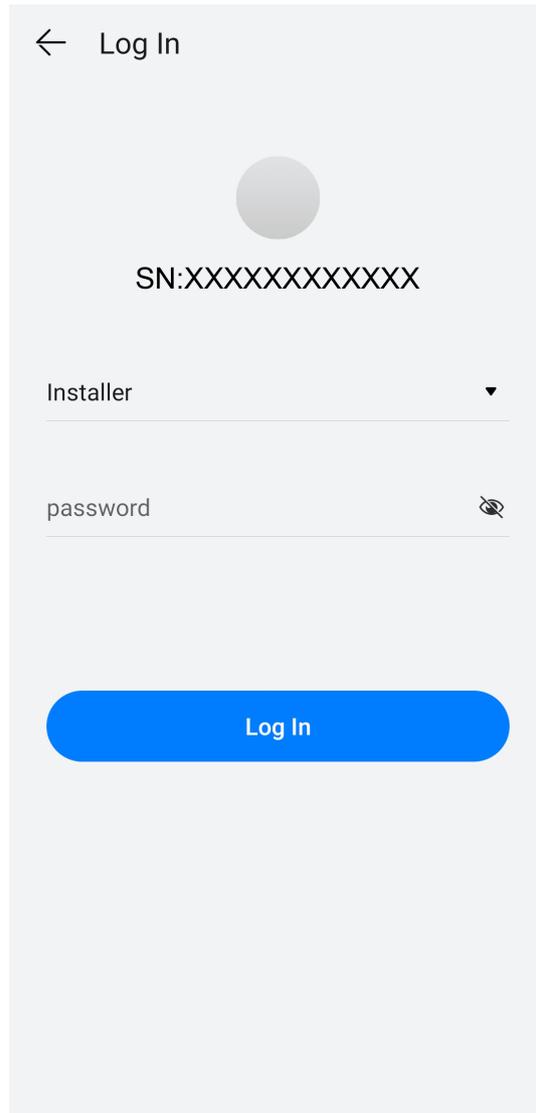
NOTE

- The last six digits of the product WLAN name are the same as the last six digits of the product SN.
- Use the initial password upon the first power-on and change the password immediately after login. To ensure account security, protect the password by changing it periodically, and keep it secure. Your password might be stolen or cracked if it is left unchanged for extended periods. If a password is lost, devices cannot be accessed. In these cases, the Company shall not be liable for any loss.

2. Log in to the app as an **Installer**.

NOTE

For the first login, the initial password is **Changeme**. If the system prompts you to set a password, set the login password as prompted.

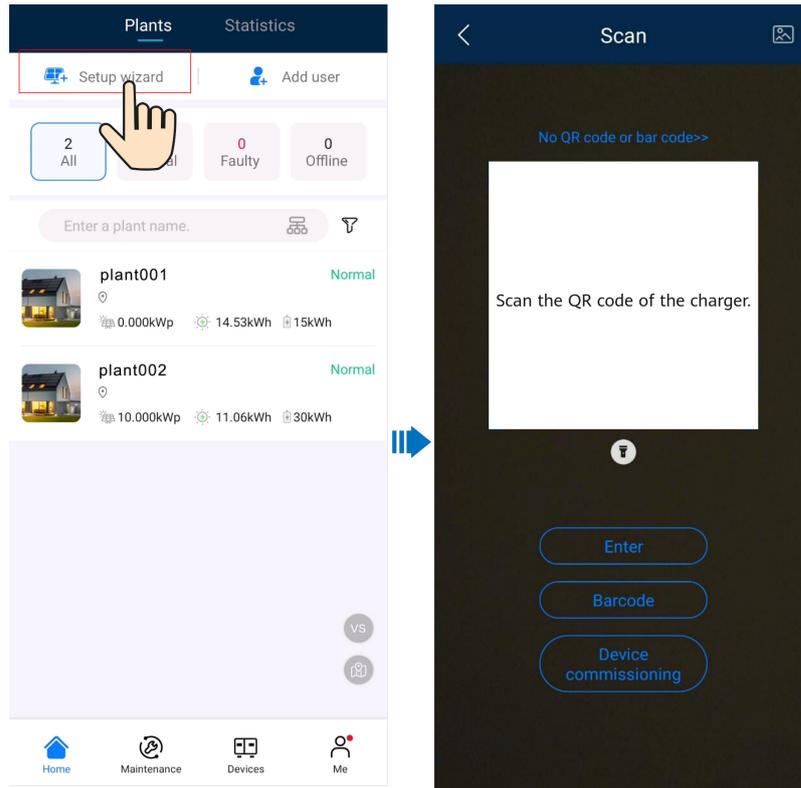3. Commission the device according to the wizard procedure.

Screenshot 1 - Quick Settings:

Quick Settings

Device Management — Finish
Parameter configuration — Communication networking

Main Circuit Breaker Capacity — 60 A

Set the total capacity of the main circuit breaker.

Sync with Phone
Date, time, and time zone

Local Time Zone — GMT+8

Maximum Charge Power — 22.0 kW

Set the maximum charge power, which cannot be greater than the rated charge power of the charger.

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Screenshot 2 - Quick settings:

Quick settings

Device Management
Parameter configuration — Communications N

Device connection

Network Config

Connection mode — *Select FE.* — FE ▾

DHCP — *This function is enabled by default. In this case, the router automatically assigns an IP address to the charger.*

Add Device

PowerMeter — Online
XXX.XXX.XXX.XXX

If the meter is not displayed, tap Add Meter, enter the meter IP address, and manually add the meter.

< BACK — NEXT >

When the charger FE port is directly connected to the router, do not select WLAN. Otherwise, the meter will fail to be connected.

If the router does not support DHCP, disable DHCP and manually assign an IP address.

Screenshot 3 - DHCP details:

DHCP

IP Address — XXX.XXX.XXX.XXX

Subnet Mask — 255.255.255.0

Default Gateway — 192.168.0.1

Primary DNS Server — 0.0.0.0

Secondary DNS server — 0.0.0.0

Router Connection

Enter the IP address as prompted and tap Connect Router.

Screenshot 4 - Quick Settings:

Quick Settings

Device Management — Finish
Parameter configuration — Communication networking

☑ I have been authorized by the user to connect to the management system.

Management System Parameters

Domain Name — solarcharge.opowercloud.huawei.com

Port — 31220

Set the Domain name to solarcharge.opowercloud.huawei.com and Port number to 31220.

If the network is not ready, skip this step.

< Back — Next >

Screenshot 5 - Quick settings:

Quick settings

Device Management
Parameter configuration — Commur

Connectivity

Device info

Power meter status — Online

< BACK — COMPLETE

📖 **NOTE**

Set the capacity of the main circuit breaker based on site requirements. If the set value is greater than the actual capacity, the circuit breaker trips due to overcurrent. If the capacity of the circuit breaker is too low, the charger cannot work.
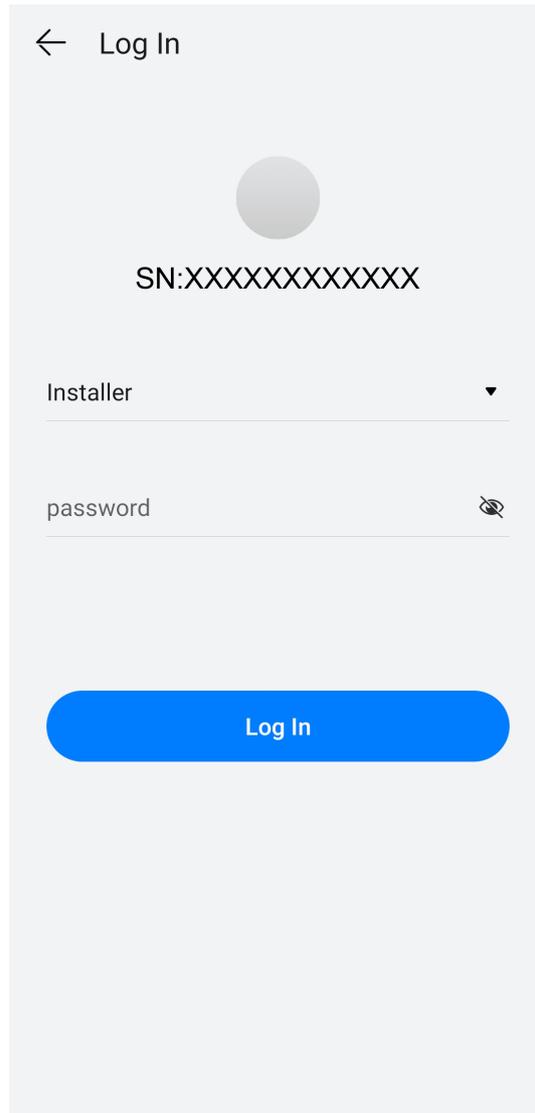
3.3 Charger Connected to a Router Through WLAN

1. Log in to the FusionSolar app as an installer, tap **Setup wizard** on the home screen, and scan the QR code of the charger.
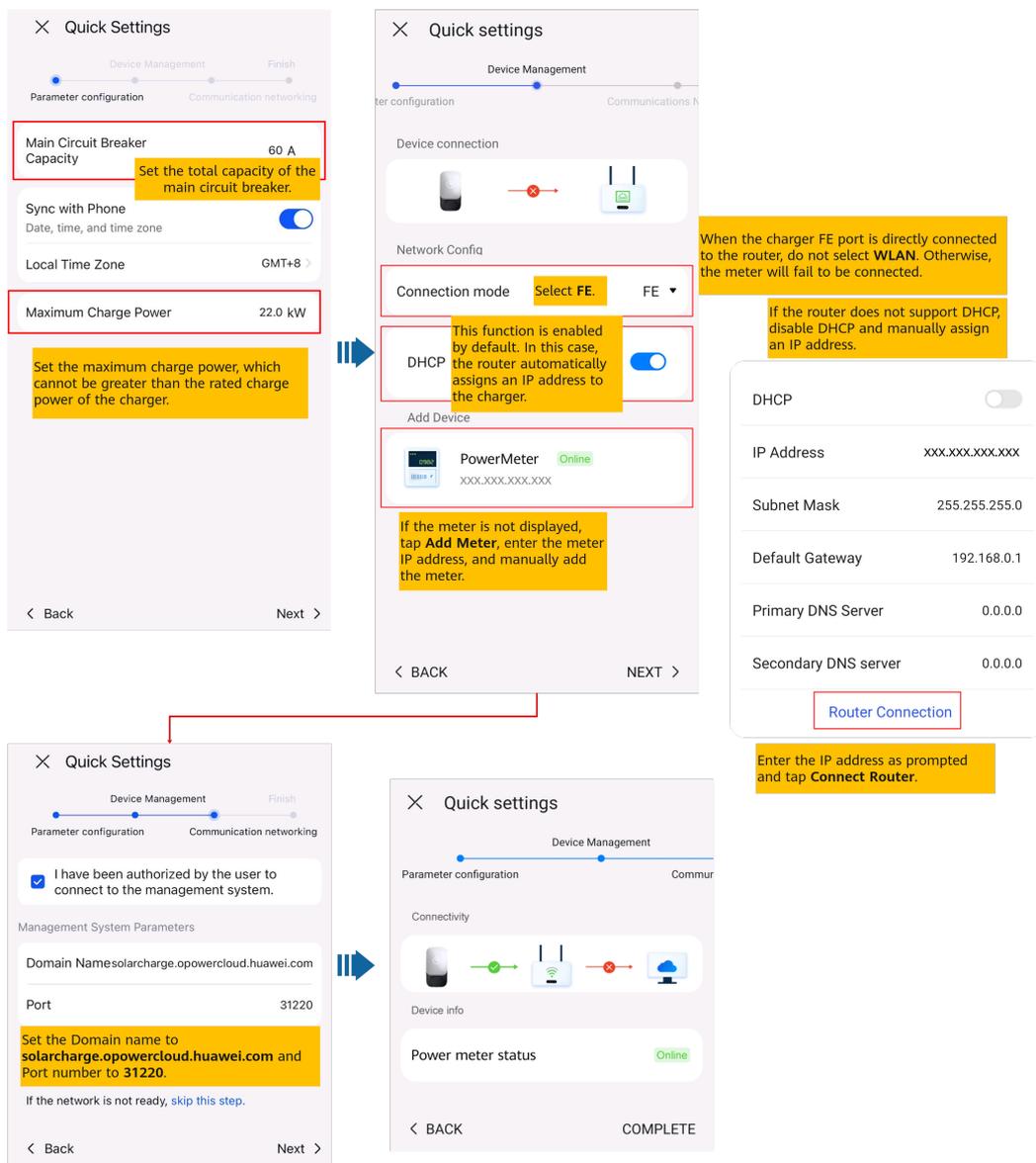
NOTE

- The last six digits of the product WLAN name are the same as the last six digits of the product SN.
- Use the initial password upon the first power-on and change the password immediately after login. To ensure account security, protect the password by changing it periodically, and keep it secure. Your password might be stolen or cracked if it is left unchanged for extended periods. If a password is lost, devices cannot be accessed. In these cases, the Company shall not be liable for any loss.

2. Log in to the app as an **Installer**.

←   Log In

SN:XXXXXXXXXXXX

Installer   ▼

password   👁

Log In

📖 **NOTE**

For the first login, the initial password is **Changeme**. If the system prompts you to set a password, set the login password as prompted.

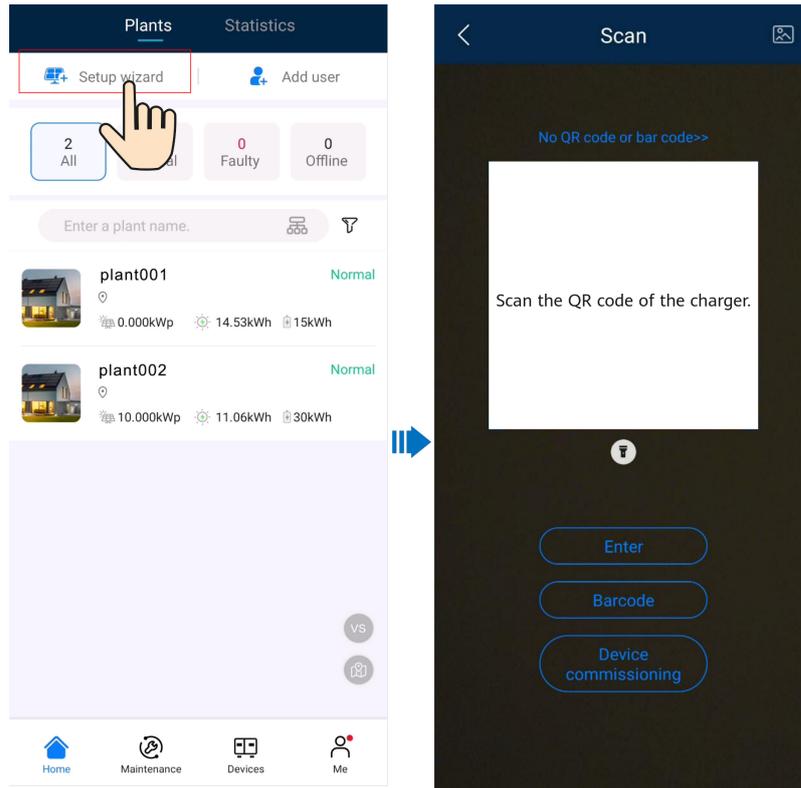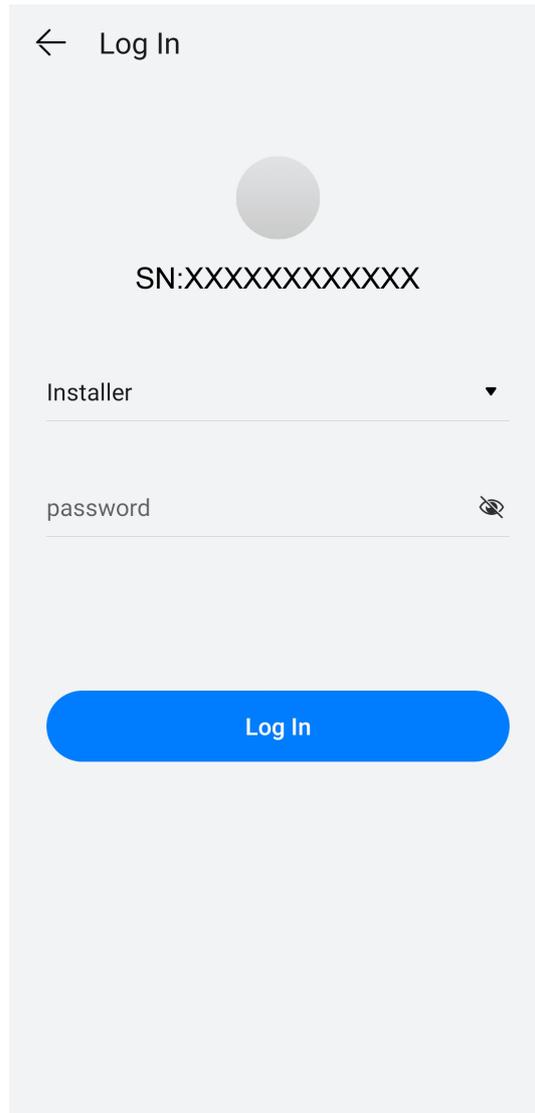3. Commission the device according to the wizard procedure.

Quick Settings

Parameter configuration — Device Management — Finish — Communication networking

Main Circuit Breaker Capacity — 60 A

Set the total capacity of the main circuit breaker.

Sync with Phone
Date, time, and time zone

Local Time Zone — GMT+8

Maximum Charge Power — 22.0 kW

Set the maximum charge power, which cannot be greater than the rated charge power of the charger.

Back — Next

Quick settings

Parameter configuration — Device Management — Communications N

Device connection

WLAN

Password

Router Connection

Select the router you want to connect, enter the password, and tap **Connect Router**.

Add Device

PowerMeter — Online
XXX.XXX.XXX.XXX

If the meter is not displayed, tap **Add Meter**, enter the meter IP address, and manually add the meter.

BACK — NEXT

Quick Settings

Parameter configuration — Device Management — Finish — Communication networking

☑ I have been authorized by the user to connect to the management system.

Management System Parameters

Domain Name — solarcharge.opowercloud.huawei.com

Port — 31220

Set the Domain name to **solarcharge.opowercloud.huawei.com** and Port number to **31220**.

If the network is not ready, skip this step.

Back — Next

Quick settings

Parameter configuration — Device Management — Commun

Connectivity

Device info

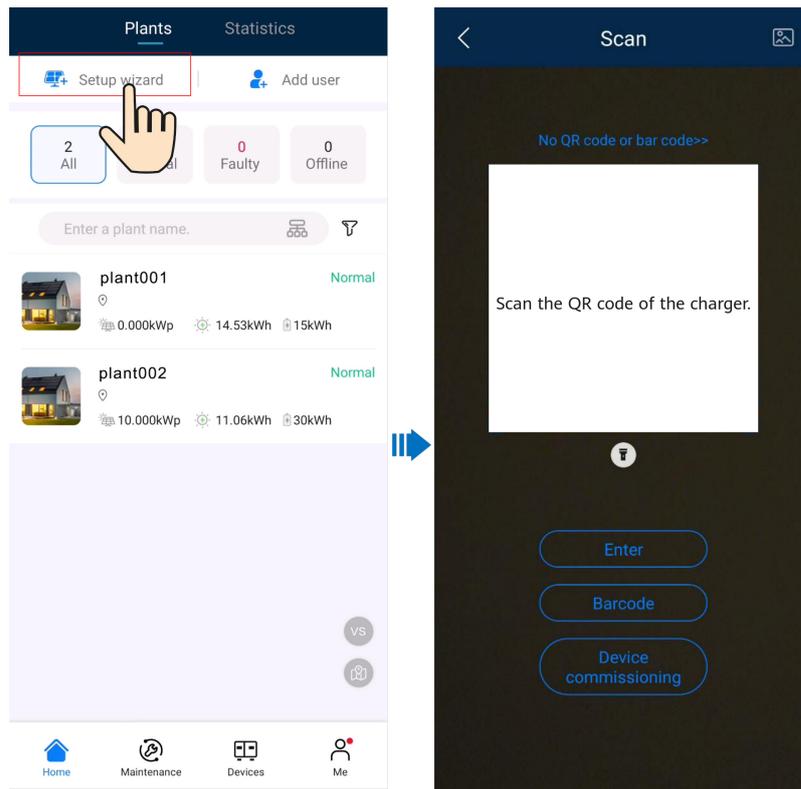Power meter status — Online

BACK — COMPLETE

📖 **NOTE**

Set the capacity of the main circuit breaker based on site requirements. If the set value is greater than the actual capacity, the circuit breaker trips due to overcurrent. If the capacity of the circuit breaker is too low, the charger cannot work.
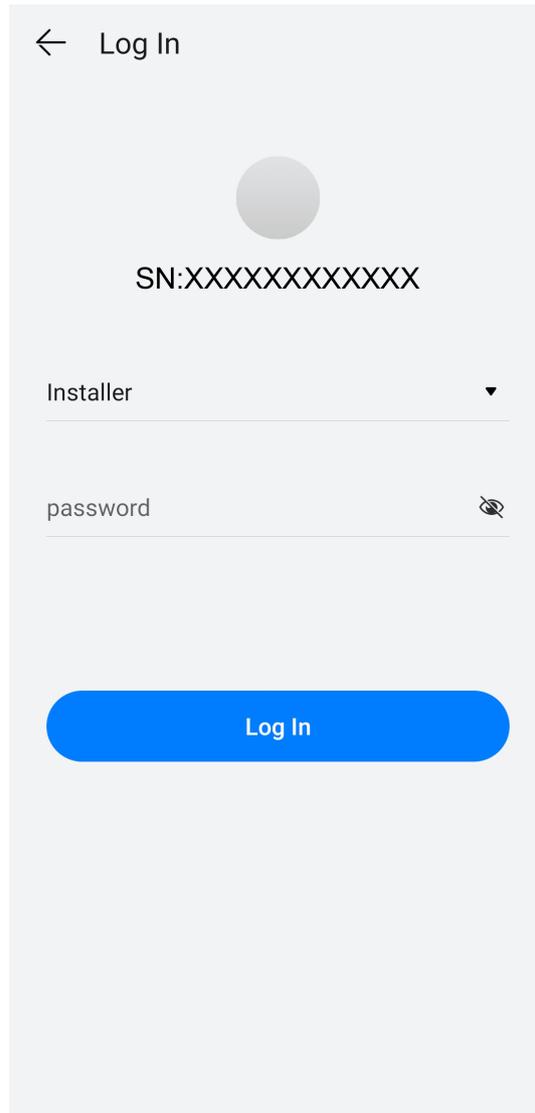
3.4 Charger Using a Virtual Meter

◫ NOTE

> If a virtual meter is used, log in to the inverter connected to the Dongle, choose **Settings** > **Communication configuration** > **Dongle parameter settings**, and set Modbus TCP to **Enable (unrestricted)**. If an FE meter is used, set Modbus TCP to **Disable**.

1. Log in to the FusionSolar app as an installer, tap **Setup wizard** on the home screen, and scan the QR code of the charger.

◫ NOTE

- The last six digits of the product WLAN name are the same as the last six digits of the product SN.
- Use the initial password upon the first power-on and change the password immediately after login. To ensure account security, protect the password by changing it periodically, and keep it secure. Your password might be stolen or cracked if it is left unchanged for extended periods. If a password is lost, devices cannot be accessed. In these cases, the Company shall not be liable for any loss.

2. Log in to the app as an **Installer**.

← Log In

SN:XXXXXXXXXXXX

Installer ▼

password 👁‍🗨

Log In

📖 **NOTE**

For the first login, the initial password is **Changeme**. If the system prompts you to set a password, set the login password as prompted.

3. Commission the device according to the wizard procedure.

Quick Settings

Device Management   Finish

Parameter configuration   Communication networking

Main Circuit Breaker
Capacity   60 A

Set the total capacity of the main circuit breaker.

Sync with Phone
Date, time, and time zone

Local Time Zone   GMT+8

Maximum Charge Power   22.0 kW

Set the maximum charge power, which cannot be greater than the rated charge power of the charger.

< Back   Next >

Quick settings

Device Management

ter configuration   Communications N

Device connection

Network Config

Select FE or WLAN as required. FE is used as an example.

Connection mode   FE ▼

DHCP

This function is enabled by default. In this case, the router automatically assigns an IP address to the charger.

Add Device

PowerMeter   Online
XXX.XXX.XXX.XXX

If the meter is not displayed, tap Add Meter, enter the meter IP address, and manually add the meter.

< BACK   NEXT >

If the router does not support DHCP, disable DHCP and manually assign an IP address.

DHCP

IP Address   XXX.XXX.XXX.XXX

Subnet Mask   255.255.255.0

Default Gateway   192.168.0.1

Primary DNS Server   0.0.0.0

Secondary DNS server   0.0.0.0

Router Connection

Enter the IP address as prompted and tap Connect Router.

Quick Settings

Device Management   Finish

Parameter configuration   Communication networking

☑ I have been authorized by the user to connect to the management system.

Management System Parameters

Domain Name solarcharge.opowercloud.huawei.com

Port   31220

Set the Domain name to solarcharge.opowercloud.huawei.com and Port number to 31220.

< Back   Next >

Quick settings

Device Management

Parameter configuration   Commun

Connectivity

Device info

Power meter status   Online

< BACK   COMPLETE

📖 **NOTE**

Set the capacity of the main circuit breaker based on site requirements. If the set value is greater than the actual capacity, the circuit breaker trips due to overcurrent. If the capacity of the circuit breaker is too low, the charger cannot work.
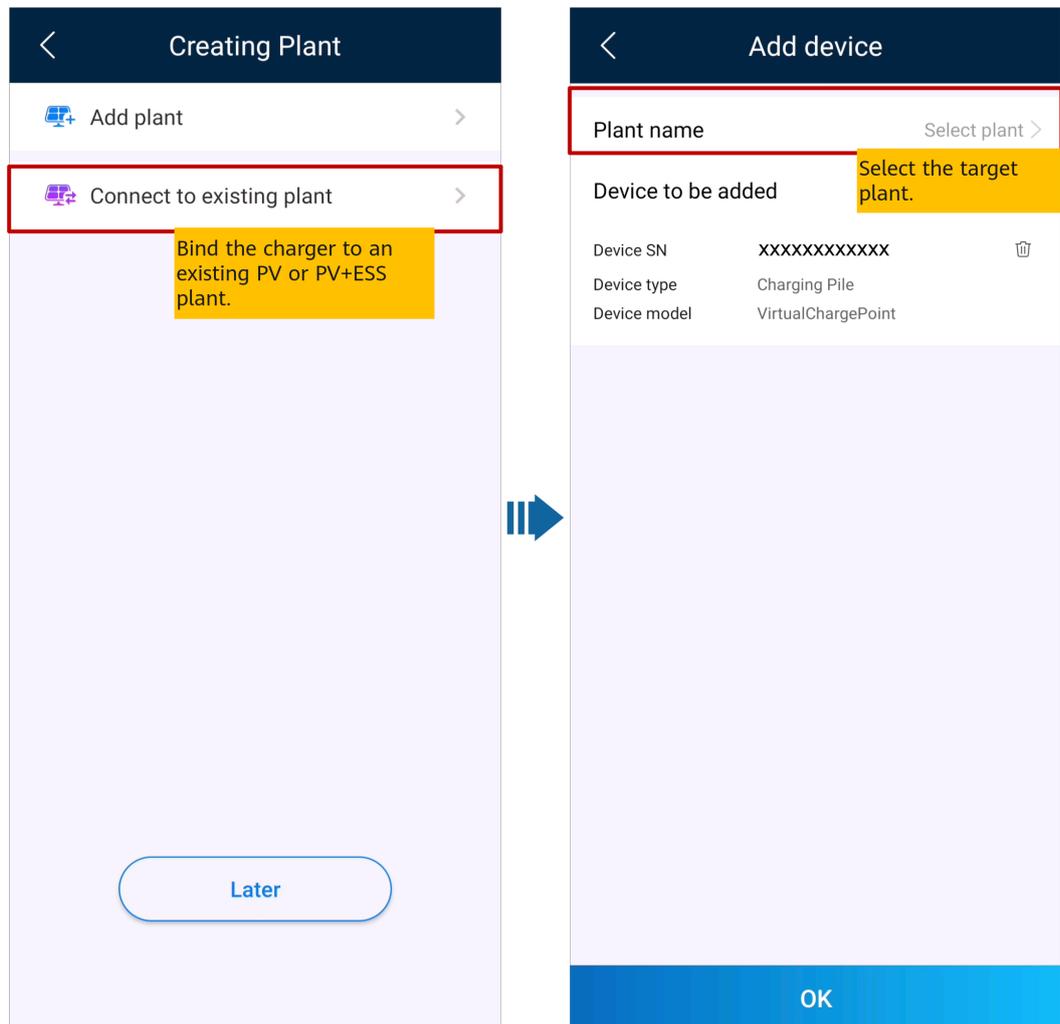
4 Connecting to a Plant

After devices are commissioned, you can create a PV plant and configure basic information on the FusionSolar app to implement unified device monitoring and O&M.

- If the owner does not have a PV (or PV+ESS) plant on FusionSolar SmartPVMS (Cloud) or FusionSolar app, see **4.1 Connecting to a New Plant** to connect the charger to a new plant.

- If the owner has a PV (or PV+ESS) plant on FusionSolar SmartPVMS (Cloud) or FusionSolar app, see **4.2 Connecting to an Existing Plant** to connect the charger to an existing plant.

- If PV and energy storage devices and chargers are not provided by the same installer, see **4.3 Connecting Devices to a Plant with Multiple Installers** to connect them to a plant.

4.1 Connecting to a New Plant
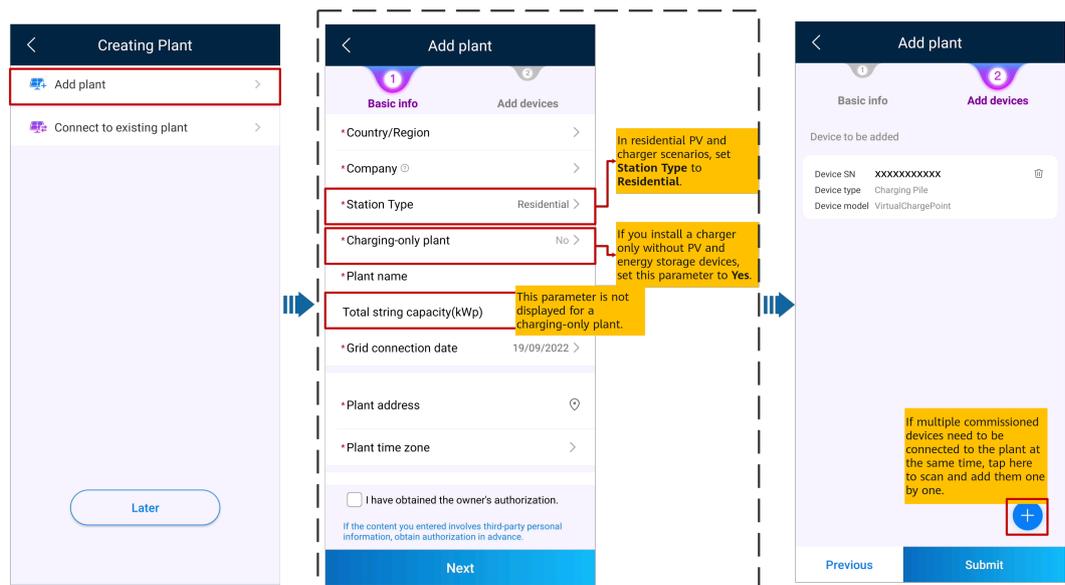
4.2 Connecting to an Existing Plant

4.3 Connecting Devices to a Plant with Multiple Installers

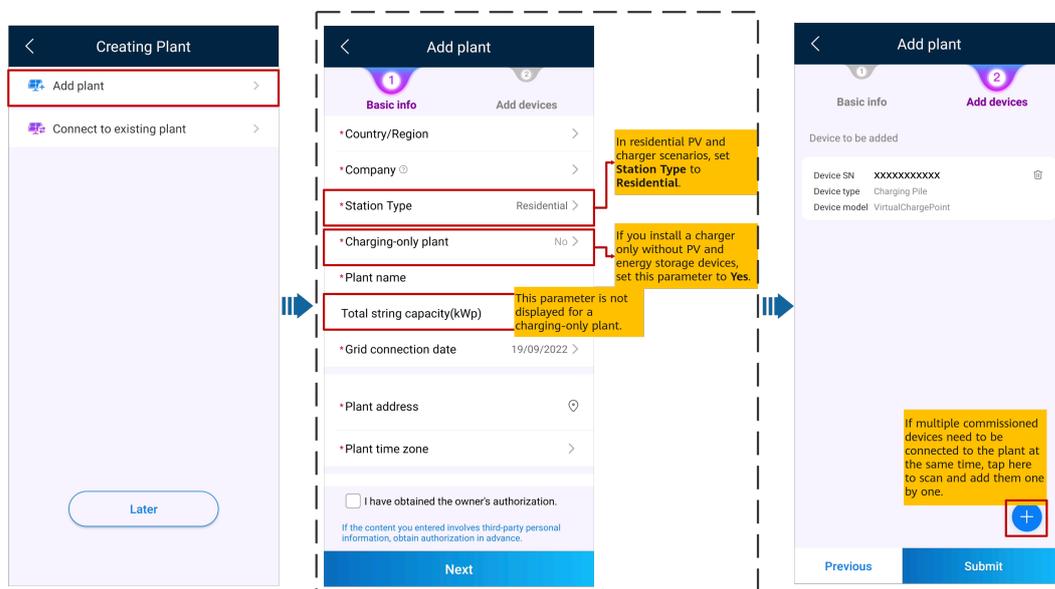**Charging-Only Plant Created by Installer A and PV Devices Connected by Installer B**

1. The owner logs in to the FusionSolar app and unbinds the charger from the plant created by installer A.

   a. On the **Overview** screen, tap **Plant details**.

   b. Tap **Add devices**.

   c. Tap 🗑 and select **Unbind Device** based on the site requirements.

 NOTE

- After a device is unbound, the running data of the device and its subdevices is stored in the database. The default data retention period is six months. To change the retention period, contact the system administrator.
  - If a device is rebound to a plant within the data retention period, the device inherits the retained data.
 - If a device is not bound to a plant within the data retention period, the data will be automatically deleted.
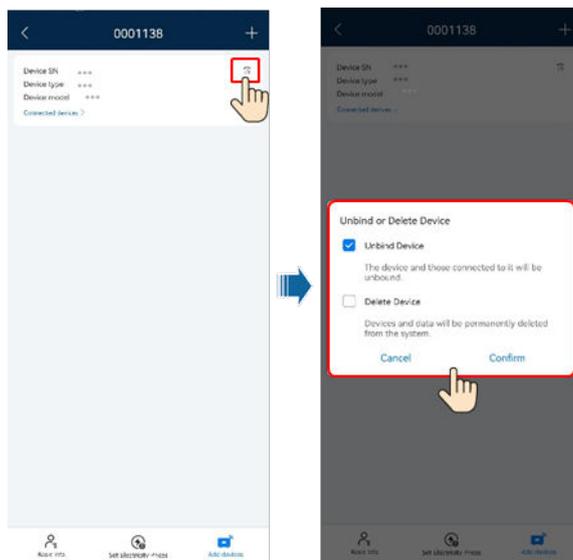
2. Installer B connects the commissioned PV devices and charger to a new PV plant.

PV Plant Created by Installer A and Charger Connected by Installer B

Installer B does not bind the charger to a plant after commissioning. The owner sends the SN or QR code of the charger to installer A, and installer A connects the charger to an existing PV plant.

1. Tap **Home** > **Plants**, and tap **Setup wizard**. Scan the QR code of the target charger.
2. On the **Creating Plant** screen, tap **Connect to existing plant**.
3. On the **Add device** screen, select the target plant.
4. Tap **OK**.
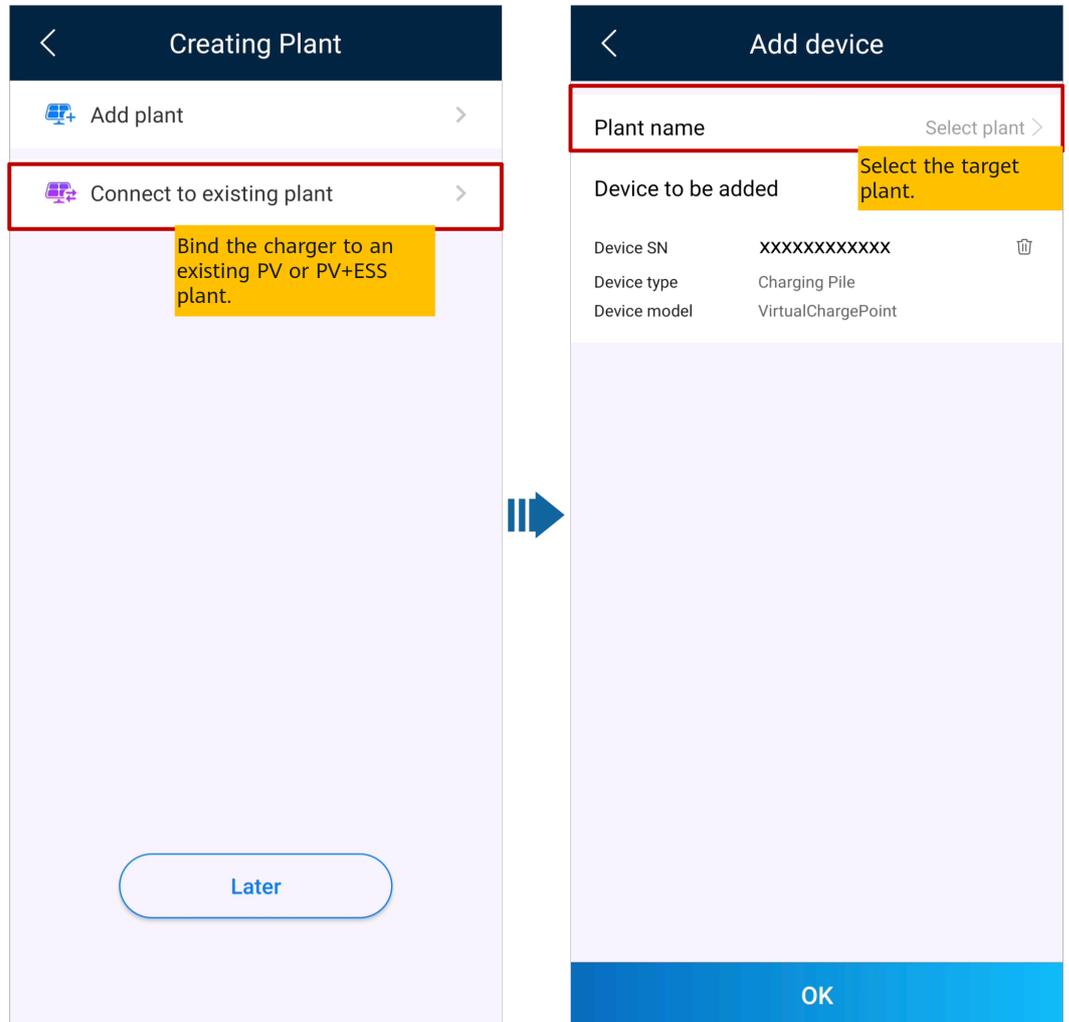
5 Creating a User

An installer can create owner user accounts and installer user accounts on the FusionSolar app. Owner users can monitor the running status, energy yield, and revenue of plants. Installer users can perform wizard-based site deployment and commissioning, monitor the running status of the plants, manage devices, query alarms, and perform mobile O&M.

When creating a user, ensure that the PV plant to be associated is available. If your company has created a plant, you can directly create a user and associate the user to the plant. If your company has not created a plant, create a plant and then add a user. For details, see **4 Connecting to a Plant**.

Creating an Owner User

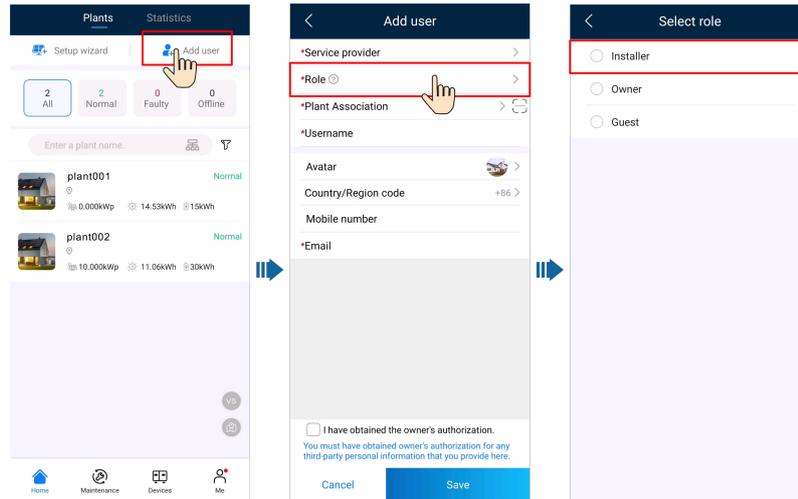On the **Home** screen, tap **Plants**. Tap **Add user** and create an account as prompted.
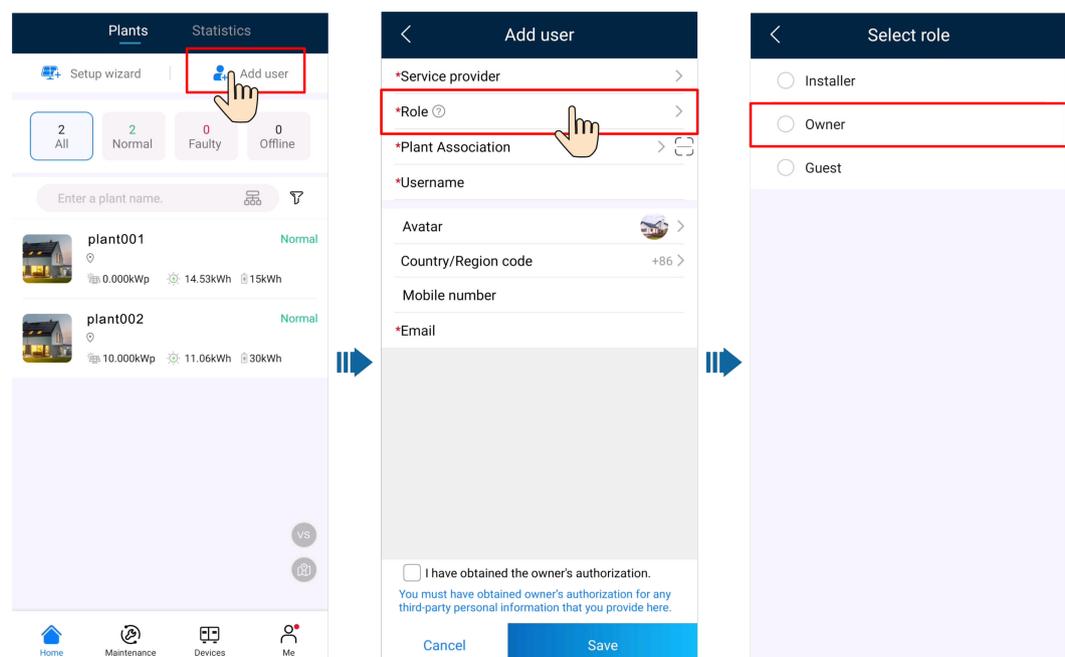
 NOTE

> After an account is created, the system sends a notification to the entered email address.
> Then the user can use the received username and password to log in to the FusionSolar app
> or SmartPVMS WebUI.

Creating an Installer User

On the **Home** screen, tap **Plants**. Tap **Add user** and create an account as prompted.

 NOTE

- For a new user who is assigned the **Installer** role, if the user is associated with only PV plants, the installer can manage the associated PV plants within the permission of the role but cannot create a PV plant. If the installer is associated with a company, the installer can manage all PV plants of the associated company and has the permission to create PV plants.

- After an account is created, the system sends a notification to the entered email address. Then the user can use the received username and password to log in to the FusionSolar app or SmartPVMS WebUI.

6 FAQs

6.1 How Do I Reset the Default Password of a Charger Using an RFID Card When I Forgot the Password?

Description

If you forgot the password, you can reset the password by swiping the card.

Precautions

- This operation will reset both the WLAN password and login password. The charger login password will be reset to **Changeme**. The WLAN connection password will be reset to the initial password.

- Before resetting the password, ensure that the charger is idle.

Procedure

1. Swipe the card for five consecutive times (at an interval of less than 5s). The indicator on the charger is steady white for 3s and the charger enters the swipe protection state. Stop swiping the card now.

2. After 3s, the indicator blinks white fast for 20s. If you swipe the card again within this 20s, the indicator turns off and pulsates after 3s, indicating that the charger password has been successfully reset.
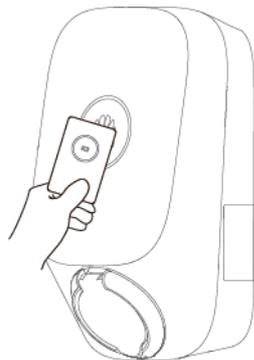
📖 **NOTE**

> If you swipe your card in the swipe protection state, the swipe protection time will start again.

6.2 How Do I Connect to a Charger When I Cannot Log In to the FusionSolar App Due to Poor Network Connection?

📖 **NOTE**

> Before connecting to the WLAN of the charger, disable the mobile network function and ensure that the mobile phone cannot connect to the Internet. When connecting to the WLAN of the charger, enable the WLAN as prompted.

1. On the app login screen, tap **…** > **Device commissioning (When no network available)**.

2. Tap **Charger** and connect to the WLAN of the charger as prompted.