

Smart Mobile-4G-EU Quick Guide

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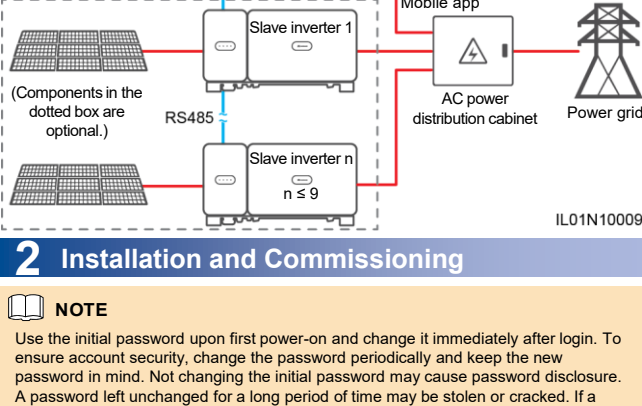
NOTICE

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The Smart Mobile-4G-EU (4G module for short) is a 4G communications expansion module used to connect an inverter to the management system through a 4G network.

1 Overview

- The SUN2000-50KTL-M0/SUN2000-60KTL-M0 inverter can separately connect to the management system through the 4G module. It can also connect to the management system through the 4G module while functioning as the master inverter in RS485 cascading communication.
- The master and slave inverters are cascaded through RS485. The slave inverter model can be different from the master inverter model. A maximum of nine slave inverters can be configured.



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2 Installation and Commissioning



NOTE

Use the initial password upon first power-on and change it immediately after login. To ensure account security, change the password periodically and keep the new password in mind. Not changing the initial password may cause password disclosure. A password left unchanged for a long period of time may be stolen or cracked. If a password is lost, devices cannot be accessed. In these cases, the user is liable for any loss caused to the PV plant.

2.1 Setting Communications Parameters for the Master Inverter on the SUN2000 App

NOTICE

Before setting communications parameters for the master inverter, ensure that the following conditions are met:

- Access the Huawei App Store (<http://appstore.huawei.com>) or Google Play (<https://play.google.com>), search for "SUN2000," and download the app installation package. The app version should be 3.2.00.001 or later.
- Check that the AC or DC sides of the master and slave inverters have been powered on.
- You have connected a Bluetooth module, a WLAN module, or a USB data cable of the mobile phone to the USB port on the master inverter to enable communication between the master inverter and the SUN2000 app.

Bluetooth or WLAN connection

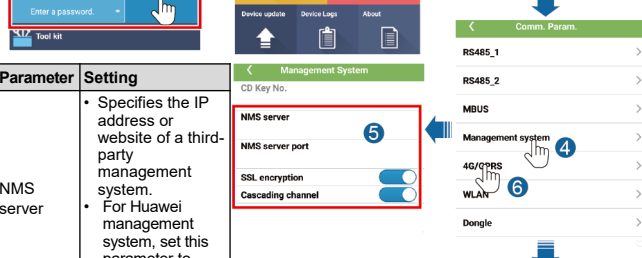


USB data cable connection



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Log in to the SUN2000 app as **Advanced User**, and set the management system and 4G parameters for the master inverter.



Parameter	Setting
NMS server	<ul style="list-style-type: none"> Specifies the IP address or website of a third-party management system. For Huawei management system, set this parameter to intl.fusionsolar.huawei.com.
NMS server port	<ul style="list-style-type: none"> Set the port number of the management system to which the inverter connects over a network protocol. For Huawei management system, set this parameter to 27250.
SSL encryption	Set this parameter to Enable .
Cascading channel	<ul style="list-style-type: none"> If a single inverter connects to the management system, set this parameter to Disable. If multiple inverters are cascaded to the management system, set this parameter to Enable.
APN mode	<ul style="list-style-type: none"> Set the parameters related to the SIM card. The parameters are obtained from the SIM card carrier. When APN mode is set to Automatic by default, APN, APN dialup number, APN user name, and SIM user password are not displayed. When APN mode is set to Manual, APN related parameters are displayed. You can set the parameters.
Identification type	
APN	
APN dialup number	
APN user name	
SIM user password	
PIN	

Management System

CD Key No.

NMS server

NMS server port

SSL encryption

Cascading channel

Management system

4G/GPRS

WLAN

Dongle

4G/GPRS

Network mode

APN mode

Identification type

APN

APN dialup number

APN user name

APN user password

PIN

NOTE

The UI screenshots are from the SUN2000 app version 3.2.00.001 (Android).

NOTICE

- The **CD Key No.** is automatically generated by the inverter and serves as a credential for creating a site on the management system.
- If **SSL encryption** is set to **Disable**, data is exchanged between the inverter and the management system without being encrypted, which poses security risks.
- In the scenario where multiple inverters are cascaded to the management system, if **Cascading channel** is set to **Disable** for the master inverter, the slave inverters cannot connect to the management system.
- The management system and 4G parameters do not need to be set for the slave inverters, and **Cascading channel** should be kept as **Disable** for the slave inverters.
- When the inverter connects to a third-party management system, ensure that the system supports the standard Modbus-TCP protocol and configure the access point table based on the inverter interface definitions. Set **NMS server** and **NMS server port** based on the system requirements and replace the client certificate. The system must comply with the inverter interface definitions. For details about the inverter port definitions, contact Huawei technical support. This document describes how to connect the inverter to Huawei management system.

2.2 Installing the 4G Module

NOTICE

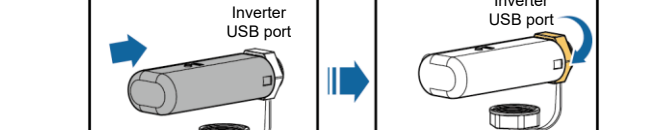
- Before installing the 4G module, remove the Bluetooth module, WLAN model or USB data cable.
- An inverter has only one USB port. When you perform local maintenance on the master inverter, remove the 4G module. Then, communication between the master inverter and the network management system is interrupted. After local maintenance is complete and the 4G module is reinstalled, the communication is restored automatically.

- Install a SIM card.



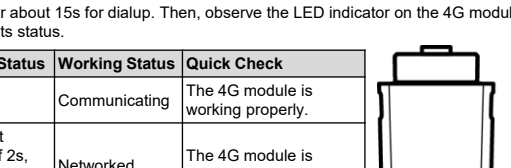
NOTE

- The 4G module is not configured with the SIM card. You need to prepare a standard 4G card (dimensions: 25 mm x 15 mm, capacity ≥ 64 kB, traffic ≥ number of inverters x 30 MB/month).
- When installing the SIM card, determine the SIM card installation direction based on the screenshot and arrow on the card slot.
- Press the SIM card in place to lock it. The SIM card is correctly installed.
- When removing the SIM card, push it inwards to eject it.
- When reinstalling the 4G module cover, ensure that the buckle springs back in place.
- Remove the 4G module from the inverter before removing the SIM card.



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- Install the 4G module.



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- Wait for about 15s for dialup. Then, observe the LED indicator on the 4G module to check its status.

Indicator Status	Working Status	Quick Check
Steady on	Communicating	The 4G module is working properly.
Blinking: at intervals of 2s, once per cycle, on for 0.1s and off for 1.9s	Networked successfully	The 4G module is waiting for communication setup.
Blinking: at intervals of 2s, twice per cycle, on for 0.1s and off for 0.1s, then on for 0.1s and off for 1.7s	No service	The SIM card is not installed, not in good contact, or has no traffic.
Off	Not powered on	The 4G module is not properly connected or damaged, or the USB port is not energized.

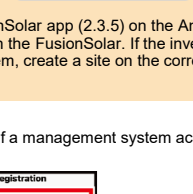
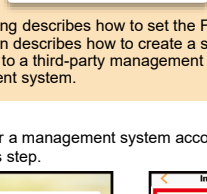


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2.3 Deploying Plants in a Remote Management System Using the FusionSolar App

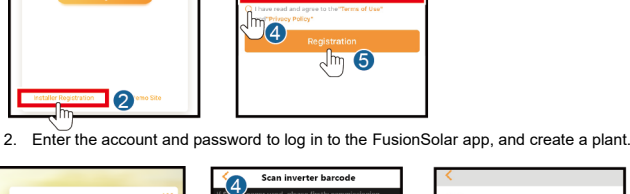
NOTICE

- Log in to Google Play and search for **FusionSolar** or scan the QR code to download and install the app. The app version is 2.3.5 or later.



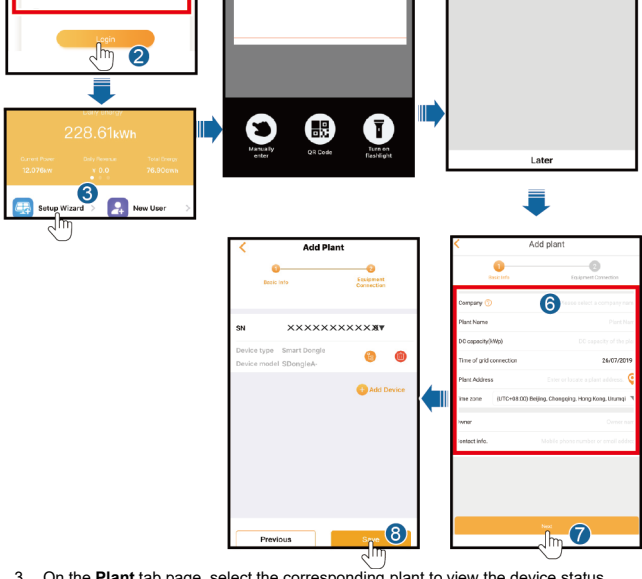
- The following describes how to set the FusionSolar app (2.3.5) on the Android UI.
- This section describes how to create a site on the FusionSolar. If the inverter is connected to a third-party management system, create a site on the corresponding management system.

- Register a management system account. If a management system account exists, skip this step.



Verify the mailbox and activate the account.

- Enter the account and password to log in to the FusionSolar app, and create a plant.



- On the **Plant** tab page, select the corresponding plant to view the device status.

3 Performance Parameters

Parameter	Description	Parameter	Description
Power supply	5 V DC, 1 A, USB 3.0 terminal	LED	Communication indicator
Device dimensions	130 mm x 48 mm x 33 mm	Net weight	0.09 kg
Operating temperature	-30°C to +60°C	Relative humidity	5%–95% RH
Highest altitude	4000 m	Pollution level	Level 2
Corrosion level	Level C	Storage temperature	-40°C to +70°C
Storage humidity	5%–95% RH	Typical power consumption	3.5 W
Certification	CE	N/A	N/A
Carriers	Taiwan: <ul style="list-style-type: none"> • Chunghwa Telecom 4G/3G • FET 4G/3G • Taiwan Mobile 4G/3G • T STAR 4G/3G India: <ul style="list-style-type: none"> • Bharti Airtel India 4G/3G/2G • Vodafone India 4G/3G/2G • Idea India 4G/3G/2G Thailand: <ul style="list-style-type: none"> • AIS Thailand 3G/2G • DTAC Thailand 4G/3G/2G • TrueMove Thailand 4G/3G/2G Vietnam: <ul style="list-style-type: none"> • MobiFone Vietnam 3G/2G • Viettel Mobile Vietnam 4G/3G/2G • Vinaphone Vietnam 3G/2G Philippines: <ul style="list-style-type: none"> • Globe Philippines 4G/3G/2G • Smart Philippines 4G/3G/2G Malaysia: <ul style="list-style-type: none"> • Celcom 4G/3G/2G • Maxis 4G/3G/2G • Digi 4G/3G/2G Singapore: <ul style="list-style-type: none"> • Singtel 4G/3G • M1 4G/3G • Starhub 4G/3G Netherlands: <ul style="list-style-type: none"> • Vodafone 4G/3G/2G • KPN 4G/3G/2G • T-Mobile 4G/3G/2G 	Network standards	<ul style="list-style-type: none"> • LTE (FDD): B1, B2, B3, B4, B5, B7, B8, B20 • DC-HSPA+/HSPA+/HS PA/UMTS: 850/900/1900/2100 MHz • GSM/GPRS/EDGE: 850/900/1800/1900 MHz