FusionSolar App

Quick Guide (EMMA)

 Issue
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Huawei Digital Power Technologies Co., Ltd.

Address: Huawei Digital Power Antuoshan Headquarters

Futian, Shenzhen 518043

People's Republic of China

Website: https://digitalpower.huawei.com

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Downloading and Installing the App

NOTICE

- Mobile phone operating system: Android 8.0, iOS 11.0, or later versions.
- To ensure the stability of each function, you are advised to use mobile phones running Android 8.0, iOS 13.0, or later versions. (For the mobile phones running iOS, iPhone 6 and later versions are supported, but iPhone SE is not supported.)
- Use mobile phones that support the access to the Internet.
- Use mobile phones that support the WLAN function.
- The router supports 2.4 GHz WLAN, and the WLAN signal reaches the device.
- The WPA, WPA2, or WPA/WPA2 encryption mode is recommended for routers. The Enterprise mode is not supported (such as airport WLAN and other public hotspots that require authentication). WEP and WPA TKIP are not recommended because they have serious security vulnerabilities. If the access fails in WEP mode, log in to the router and change the encryption mode of the router to WPA2 or WPA/WPA2.

Procedure

Method 1: Download and install the app from the app store.

- Huawei mobile phone users: Search for **FusionSolar** in Huawei AppGallery.
- iPhone users: Search for **FusionSolar** in the App Store.
- Other mobile phone users: Select method 2.



Method 2: Scan the QR code to download and install the app.



NOTE

Users who select method 2 can select the download method based on the mobile phone type.

- Huawei mobile phone users: Download from Huawei AppGallery.
- Non-Huawei phone users: Download on a browser.

When you select **Download via the Browser**, if a security warning message is displayed indicating that the app is from an external source, tap **ALLOW**.

2 Registering the Company's First 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.

NOTE

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

Procedure

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

After the account is registered, you can log in to the FusionSolar app with the registered username and password.

2 Registering the Company's First Installer Account

English 🕶 🔡	← Role	\leftarrow Installer Registration
	Real-time monitoring of plant operation Ask your installer to create an	Note: If your company has been registered in the system, skip this step and ask your administrator to add you to the user list.
FusionSolar		Company name
	Um an installer Quick setup, O&M, operation monitoring	Select a country/region.
Username or email		Enter an email address.
Password 🕸		Enter your username.
No account? Forgot password?		Enter the password. 🛷
		Confirm password
Log In		Verification code Send Code
Demo site		I agree to the Terms of Use and I have read the Privacy Policy.
		Register
https://intlfusionsolar.huawei.com		

3 Registering an Owner Account or Another Installer Account

- If self-service registration is not supported in your region, your installer needs to **create an account** for you and bind a plant. After the account is created, the system will send you the username and initial password by email.
- If self-service registration is supported in your region, your installer needs to initiate an **invitation**. After receiving an invitation email from the installer, you can **register an account** on the registration screen according to the instructions.

After the account is registered, you can log in to the FusionSolar app with the registered username and password.

1. Invite a user.

2.

Plants Statistics	\leftarrow Invite User
砼 Setup wizard 은, Invite User	Service provider
1 1 0 All Normal Faulty	*Role ⑦ >
Q. Enter a plant name. 😹 🏹	*Plant Association > 🖯
My DV Plant Normal	• Email
Hy PV Plant China mainland xxx ▲ 0.000kWp ④ 0.00kWh ⊡ 100.00kWh	
vs (2)	I have obtained the owner's authorization. You must have obtained owner's authorization for any third-party personal information that you provide here.
Home Maintenance Devices Me	Cancel Save
Register an account. FusionSolar English V D Log In Account Registration * Country/Region	
* Email xxx@xx.xxx * Username	The email address should be the same as that in the invitation and cannot be changed during registration.
* Password	
* Confirm password	
* Email verification code Send Code	
I agree to Terms of Use and I have read Privacy Policy.	
Submit	

4 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**.

5 Device Commissioning (EMMA)

5.1 Setting Router Parameters of the Charger

When the charger is connected to the router over WLAN, you need to set the route parameters of the charger so that the charger and EMMA are connected to the same router. Otherwise, the EMMA cannot identify the charger in the network.

NOTE

Skip this section if no charger is available or the charger is directly connected to the router through the FE port.

1. Connect to the local commissioning screen of the charger. For details, see **9.1** How Do I Connect to the Local Commissioning Screen of the Charger?.

2. Tap **O&M** > **Route Management** and select **WLAN**.

0&M		\leftarrow Route Management
TCP-Modbus Settings	>	wlan >
Login Password	>	Password
Date and Time	>	Select the router to be
Route Management	>	connected and enter the password.
Restore factory settings	>	
Exit		
Home Alarm	Mainteni pe	

5.2 Quick Settings

The charger must be upgraded to the FusionCharge V100R023C10 to match the EMMA networking. Otherwise, the EMMA cannot find the charger. **Connect to the charger** as an installer. For details about the upgrade operations, see **9.3 Upgrading the Charger Software Version**.

1. Log in to the FusionSolar app as an installer, tap **Setup wizard** on the **Home** screen, scan the QR code of the device, and follow the instructions to connect to the WLAN.

Plants Statistics	\leftarrow Scan to Create Plant
Setup wizard 3 All All All All All All All	No QR code or barcode detected. ⑦ Scan the device QR code to connect the device to the Huawei SmartPVMS. If there is no QR code, tap "Enter SN".
Q. Enter a plant name. 🛛 🗸 🏹	

Normal	Scan the QR code of the device.
******************* Faulty ****************** ***** ▲ 0.000kWp ④ 0.00kWh *** *** • 5.42kWh ****	Tashlight On
vs Ø	Enter SN Commission Image Device
Home Maintenance Devices Me	QR code Barcode

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 to log in for the first time and change the password as prompted.
- 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.
- If the login screen is not displayed after you scan the QR code, check whether the device is correctly connected to the WLAN network. If not, manually select and connect to the WLAN network.
- If the **This WLAN network has no Internet access. Connect anyway?** message is displayed when you connect to the device WLAN, tap **CONNECT**. Otherwise, you cannot log in to the system. The actual UI and messages may vary with mobile phones.
- 2. Log in to the app as **installer** and commission the device according to the wizard.

NOTE

Change the initial password as prompted at the first login. Ensure account security by changing the password periodically.

- Setting router parameters

Connect the EMMA to the home router to ensure that the charger in the network can be detected.

< Quick settin	gs	< c	uick settings
Device magt n Basic Parameter parameters configuration	nmunication etworking Completed	Device m Basic parameters	Communication networking Parameter Completed configuration
*Country/Region	xxxxx >	*Country/Reg	ion xxxxx >
Sync phone time		Sync phone ti	me
Time 2023-0	08-23 11:46:26	Time	2023-08-23 11:46:20
Time zone (UTC-	+08:00)Beijing $ \sim $	Time zone	(UTC+08:00)Beijing $ \smallsetminus $
Home Router Connection (D	Home Router	Connection ⑦
🔵 WLAN 💿 Wired Netw	vork	• WLAN) Wired Network
DHCP		WLAN	$_{\rm XXXXX}$
IP address	0.0.0.0	Password	
Subnet mask	0.0.0.0		
Gateway address	0.0.0.0		
Primary DNS server	192.168.8.1		
Secondary DNS server	0.0.0.0	wLAN: Select password.	WLAN and enter the
Next			Next
Wired network (FE): DHCP default. If the router does n DHCP, disable it and manua address.	s enabled by ot support the lly assign an IP		

- Ensure that the router supports 2.4 GHz WLAN and the WLAN signal reaches the device.
- If a charger is used, ensure that the charger and EMMA are connected to the same router. Otherwise, the charger cannot be connected.
- Device management

< Quick settings	< Quick settings
Communication Device magt networking Basic Parameter Completed parameters configuration	Communication Device magt networking Basic Parameter Completed parameters configuration
Device list ⑦	Grid code Select a grid code ∨
SUN2000	SUN2000
Charger 2pcs ~	✓ ********** Grid code *****
Other Devices 2pcs ~	
Check whether the devices in the list are consistent with those in the actual network. If they are inconsistent, ensure that the communication connection is normal and tap Search for device .	Select the local grid code.
	local grid code. If so, go to the next step.
Previous Next	Previous Next

- Parameter configuration

< Quick settings	< Quick settings	< ESS Photographing
Device magt networking Basic Parameter Complet parameters configuration	d Device magt Communication Device magt networking Basic Parameter Completed parameters configuration	© Camera
EMMA Configuration Meter Connection Mode	ESS Installation Select V Environmen t	Barcode label Waterproof ESS front side
Meter measurement mode	ESS Photographing	① Camera
Rated Current of Main Circuit	All Uncompleted Completed	ESS left side ESS right side
Seamless switchover (1)	(DCDC) ******** SN Device rec	 Ensure that you have obtained authorization from the customer. Ensure that the photos are of the devices in the actual
Charger Configuration Maximum Power ** kW Py Ohrging Pile St. *******	Upload photos of the ESS installation	installation site. When taking photos of waterproof terminals, refer to the example figure. Ensure that all waterproof terminals are included. . Photos much not contain personal information (such as facial images and license plate numbers) or infringe upon others' legitimate rights or interests. . Photos will be uploaded to the FusionSolar server during PV plant binding.
ESS Configuration	environment for future use to ensure the safety of the ESS installation environment.	
Working mode settings ③	Note: If there is no ESS, skip this step.	prompted after installation.
Maximum grid power during 0W battery discharge		
Previous Next	Previous Next	FINISH
Set key parameters of the devices.		

Table 5-1 Parameter description

Device	Parameter	Description
EMMA Main Circuit Breaker		Used for home appliance overload protection. Set the rated current of the main circuit breaker based on the site requirements.
Сарасіту	When the EMMA detects that the actual current exceeds the preset value, it limits the power purchased from the grid and shuts down loads by power consumption priority in ascending order until the actual current is lower than the preset value. NOTE The feed-in power is not limited by this parameter.	
	Meter Connectio n Mode	Based on the actual cable connection mode of the power meter.
	Meter	Measures the home current.
r e	measurem ent mode	The internal CT can collect a maximum of 63 A current. When the home current is greater than 63 A, an external CT is required.
	External CT Ratio	When Meter measurement mode is selected as External CT connection, the external CT ratio needs to be configured.

Device	Parameter	Description
	Seamless switchover	 Enabled: When the power grid fails, the system switches to the off-grid state within 20 ms to ensure that loads are not powered off. Disabled: Loads will be powered off temporarily during the on/off-grid switchover. NOTE This parameter needs to be configured only in the SmartGuard scenario.
Charger	Maximum Power	Maximum charge power of the charger (less than or equal to the rated power of the charger).
ESS	Working	Maximum self-consumption
	mode	PV energy is preferentially supplied to loads, and then the surplus PV energy is charged to the ESS. If the ESS is fully charged or is being charged at full power, the surplus PV energy is fed to the power grid. When PV energy is insufficient or no PV energy can be generated at night, the ESS discharges energy to loads. This improves the self-consumption rate and energy self-sufficiency rate, and reduces electricity costs. The grid cannot charge the ESS.
		Fully fed to grid : This mode maximizes the PV energy fed to the grid. When the generated PV energy in the daytime is greater than the maximum output capability of the inverter, the surplus energy is used to charge the ESS. When the generated PV energy is less than the maximum output capability of the inverter, the ESS discharges energy to the inverter to maximize the energy fed from the inverter to the grid. The grid cannot charge the ESS. Note: The grid cannot charge the ESS.

Device	Parameter	Description
		TOU : Charge and discharge time segments are manually set.
		During the charge period, the grid can charge the ESS. During the discharge period, the ESS can supply power to the loads. In other time segments, the ESS does not discharge power. The PV system and grid supply power to loads, and the PV system can charge the ESS. (In on/ off-grid mode, if the grid fails, the ESS can discharge power at any time.)
		Note: In some countries, the grid is not allowed to charge the ESS. In this case, do not use this mode.

Communication networking



3. Tap **Connection Test** to check the communication status between devices and the WLAN signal strength of devices to identify possible faults. You can identify and rectify faults by viewing rectification suggestions to ensure that the system runs properly.

< Quick	settings
Device magt Basic Pai parameters conf	Communication networking rameter Completed iguration
Network settings	
♥→	≥ -∞→ _
Device list	Connection Test
SUN2000	cs ^
**************************************	-1)
Charger	2pcs へ
My Charging Pile SN:************ My Charging Pile SN:***********	•
Other Devices	2pcs 🔨
SN:********	•
Previous	Finish

4. Tap **Finish** and connect devices to a plant as prompted. For details, see **6 Connecting to a Plant**.

6 Connecting to a Plant

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

6.1 Connecting to a New Plant



The Plant Profile function is not supported in some regions. The actual screen may vary.

6.2 Connecting to an Existing Plant



7 Creating a User

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

When creating a user, ensure that the 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 6 Connecting to a Plant.

Creating an Owner User

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

Plants Statistics	
। ∰ Setup wizard	Add user
3 2 1	*Service provider >
All Normal Faulty	*Role ⑦ >
Q. Enter a plant name. 😹 🏹	*Plant Association > 🖯
Normal	*Username
▲ 0.000kWp ① 0.00kWh ***** № 15.00kWh 函	Avatar 🕁 >
**************************************	Country/Region code +86 >
	Mobile number
Faulty	* Email
 ▲ 0.000kWp ④ 0.00kWh *** ● 5.42kWh 	
vs	I have obtained the owner's authorization.
2	You must have obtained owner's authorization for any third-party personal information that you provide here.
Home Maintenance Devices Me	Cancel Save

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 SmartPVMS or FusionSolar app.

Creating an Installer User

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

Plants Statistics		
ⓒ Setup wizard Ado	d user	Add user
3 2 1 All Normal Eaulty		*Service provider >
All Normal Paulty		*Role ⑦ >
Q Enter a plant name.	ふ マ	*Plant Association > 🖯
***************************************	Normal	*Username
		Avatar 🔬 >
****************	Normal	Country/Region code +86 >
		Mobile number
***************************************	Faulty	* Email
 ▲ 0.000kWp ① 0.00kWh ➡ 5.42kWh 	***	
	VS	I have obtained the owner's authorization.
	CS1	You must have obtained owner's authorization for any third-party personal information that you provide here.
Home Maintenance Devices	Me	Cancel Save

NOTE

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

8 Commissioning Functions

8.1 Adding a Smart Appliance (Owner)

You can add a smart appliance to the FusionSolar app for management.

Smart appliances include smart switches (smart relays, sockets, and circuit breakers), heat pumps, and chargers.

- The EMMA controls the SG Ready heat pump directly or through an external relay.
- A smart relay, socket, or circuit breaker can connect to the same router as the EMMA over WiFi or FE.
- A charger can connect to the same router as the EMMA over WiFi or FE; or the FE port of the charger is directly connected to the LAN port of the EMMA. A charger can be automatically discovered during the deployment commissioning of the EMMA, no need to manually add it as a smart appliance.

Appliance Settings

NOTE

- The smart switches can work properly only when there are stable WLAN signals. If the signals are unstable, the switches may fail to connect to WLAN or frequently go offline. Different brands of smart switches may have different WLAN requirements. For details, see the product manuals or contact your supplier.
- Before the installation, ensure that the home router can cover the position of the smart switches with stable network connection, and perform the commissioning and verification.

1. Connect a smart switch to the same router as the EMMA. For details, see the quick guide delivered with the smart switch.

2. Open the FusionSolar app, choose **Devices** > **Appliances**, add the smart switch, and set the parameters such as the PV power parameters and power consumption priorities.

NOTE

In the SmartGuard networking scenario, **Off-grid Load Control** does not take effect for smart appliances connected to non-backup power ports.

Connecting to Multiple Smart Switches

To avoid confusion when multiple smart switches are powered on at the same time, power on and commission them one by one.

For example, if two smart circuit breakers (Shelly Pro 2PM) are installed in the living room, perform the following steps:

1. When installing the smart circuit breakers, record their positions by taking photos and notes, and number them.

Table 8-1 Recording	the names	of the smart	switches
---------------------	-----------	--------------	----------

Shelly Pro 2PM	Shelly Pro 2PM
Living room 1	Living room 2

- 2. Power on the smart circuit breaker "Living room 1," search for it in the Shelly app, and connect it to the router.
- 3. Log in to the FusionSolar app as an owner, search for it, and change its name. Bind it to the corresponding load based on the actual cable connection.

	×
Custom Device Parame	eters
Channel 1	
Device Icon	<u> </u>
Device Name	DO load1 $>$
Device Type	General Load
Channel 2	
Device Icon	₩ >
Device Name	DO load2 $>$
Device Type	General Load

4. Repeat steps 2 and 3 to power on and commission the smart circuit breaker "Living room 2."

D NOTE

If multiple smart switches have been powered on without records in advance, you can power them on or off on the Shelly app to distinguish them.

Adding Appliances on the FusionSolar App

- 1. Log in to the FusionSolar app as the owner.
- 2. Choose **Devices** > **Appliances**, and tap **Add Device**.
- 3. Tap a discovered appliance and it will be automatically connected to the app.



8.2 (Optional) Setting Limited Feed-in Parameters

Function Description

If surplus PV energy is fed to the grid, the limited feed-in parameters can be set to ensure that the feed-in power is within the range specified by the grid company.

When the functions of the limited feed-in and scheduling via the DI port are enabled at the same time, the system calculates the output power thresholds for both functions respectively, and then sends the smaller value to the inverter.

Procedure

- 1. Log in to the local commissioning screen of the EMMA. For details, see 9.2 How Do I Connect to the Local Commissioning Screen of PV Products?.
- 2. Tap **Power adjustment** > **Limited Feed-in** and set related parameters as prompted.

< Limited	l Feed-in
Control mode	Limited feed–in (kW) $ \smallsetminus $
Limitation mode	Total power $ \smallsetminus $
Power lowering adjustment period	0.5 s >
Maximum protection time	5.0 s >
Power raising threshold	0.500 kW >
Active power output limit when meter fails	0.0 % >
Maximum grid feed-in power	0.000 kW >

Parameter	Description	
Control mode	Sets the power control mode at the grid connection point.	
	Disabled : The inverter output power is not limited, and the inverter runs at full load.	
	Grid connected with zero power : The inverter output power is limited, with zero feed-in power at the grid connection point.	
	• Limited feed-in (kW): The inverter output power is limited, with the specified maximum active output power at the grid connection point.	
	• Power-limited grid connected (%) : The inverter output power is limited based on the plant capacity percentage at the grid connection point.	
Limitation mode	Sets the export limitation mode at the grid connection point.	
	• Total power : indicates export limitation of the total power at the grid connection point.	
	• Single phase power : indicates export limitation of the power in each phase at the grid connection point. (This mode can be used only for a three-phase four-wire system.)	
Power lowering adjustment interval	Specifies the shortest interval for a single export limitation adjustment.	
Maximum protection time	Specifies the time for detecting power meter data. If the EMMA does not detect the power meter data within the preset time, the EMMA sends the value of Active power output limit when meter fails to the inverter for protection.	

Parameter	Description
Power raising threshold	Specifies the deadband for adjusting the inverter output power. If the power fluctuates within the power raising threshold, the power is not adjusted. You are advised to set this parameter to 1%–2% of the total rated output power of the inverter.
Active power output limit when meter fails	Specifies the derating value of the inverter active power by percentage. The active power percentage derating value is sent to the inverter when no power meter data is detected.
Maximum grid feed- in power (kW)	Sets the maximum active feed-in power at the grid connection point. This parameter is valid when the control mode is set to Limited feed-in (kW) .
Maximum grid feed- in power (%)	Sets the percentage of the maximum active power at the grid connection point to the plant capacity. This parameter is valid when control mode is set to Power- limited grid connected (%) .

8.3 (Optional) Setting Scheduling via DI Port Parameters

Function Description

This function applies to scenarios where the grid company performs remote scheduling through dedicated ripple control receivers. The grid company remotely sends a scheduling command (%) to the plant with a wireless transmitting apparatus. Then, the wireless receiving apparatus receives the scheduling command and converts it into a DI signal. The plant monitoring device controls the inverter to output the corresponding power.

Ensure that the inverter is correctly connected to the ripple control receiver when setting this function. (In Germany and some other European areas, the ripple control receiver is used to convert a power grid scheduling signal to a dry contact signal, in which a dry contact is needed.)

NOTE

When the functions of the limited feed-in and scheduling via the DI port are enabled at the same time, the system calculates the output power thresholds for both functions respectively, and then sends the smaller value to the inverter.

Procedure

- Log in to the local commissioning screen of the EMMA. For details, see 9.2 How Do I Connect to the Local Commissioning Screen of PV Products?.
- 2. Tap **Power adjustment** > **Scheduling via DI Port** and set related parameters as prompted.

< Schedu	ling via DI Port
Scheduling via DI Po	t 💽
DI active sch <u>ed</u> uling	DI reactive power scheduling
NO. DI1 DI2	DI3 DI4 Percentage
	+
c	ubmit
Parameter	Description
Scheduling via DI Port	Enables or disables the scheduling via DI port funct for a plant.
DI active scheduling	Sets the DI scheduling signals and the correspondin active output power percentage levels.

D NOTE

DI reactive

scheduling

power

• The two scheduling modes support 16 levels of percentages. The percentage levels of DI1–DI4 must differ from each other. Otherwise, an exception will occur during command parsing.

reactive output power percentage.

Sets the DI scheduling signal and the corresponding

• If the actual input DI signal is inconsistent with the setting, the EMMA generates an **Abnormal DI Instruction** alarm.

8.4 (Optional) Setting Peak Shaving Parameters

Function Description

This function applies to areas that have peak demand charges. The demand limit function allows you to lower the peak power drawn from grid in maximum self-consumption or TOU mode during peak hours, reducing electricity fees.

NOTE

- If the ESS working mode is **Fully fed to grid**, the demand limit function is unavailable.
- Before enabling **Peak Shaving**, enable **Charge from AC**.

Procedure

- 1. Log in to the local commissioning screen of the EMMA. For details, see 9.2 How Do I Connect to the Local Commissioning Screen of PV Products?.
- 2. Tap **Power adjustment** > **Peak Shaving** to set the demand limit working mode.

< Peak Shaving			
Limitation m	node		\sim
Backup pow SOC for pea shaving	ver k		>
Start date	End date	Peak Power(kW)	+
00:00	23:59		団
Day		everyd	ay >
	Cultural		
	Submit		

Parameter	Description	
Peak Shaving	 No control Active power limit Apparent power limit 	
Backup power SOC for peak shaving	The value of this parameter affects the peak shaving capability. A larger value indicates stronger peak shaving capability.	
	Backup power SOC for peak shaving > Backup power SOC (when Off-grid mode is enabled) > End-of- discharge SOC	

Parameter	Description
Start Time	• Set the peak power range based on the start time
End Time	and end time. The peak power is configured based o electricity prices in different time segments. You are advised to set the peak power to a low value when the electricity price is high.
Peak Power (kW)	
	• A maximum of 14 time segments can be set.

8.5 (Optional) Setting WLAN Antenna Parameters

By default, the EMMA has a built-in WLAN antenna. If the signal quality is poor, install an external antenna to enhance WLAN signals. If an external antenna is used, set the antenna in the built-in WLAN parameters to an external antenna.

Procedure

- 1. Log in to the local commissioning screen of the EMMA. For details, see 9.2 How Do I Connect to the Local Commissioning Screen of PV Products?.
- 2. Tap Settings > Communication settings > Inverter WLAN settings and set Selected antenna to External.

lnv <	erter WLAN settings	Finish
WLAN name		****
Encryption mode		***
New password		
Security level:		
Confirm new password		
Selected antenna		Embedded \checkmark
WLAN AP		Always ON 🗸
SSID broadcast		Enable 🗡
	Embedded	
	External	
	Cancel	

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9.1 How Do I Connect to the Local Commissioning Screen of the Charger?

- 1. Log in to the FusionSolar app and choose **Me** > **Commission Device**.
- 2. Connect to the WLAN of the charger as prompted.



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 to log in for the first time and change the password as prompted.
- 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.
- If the login screen is not displayed after you scan the QR code, check whether the device is correctly connected to the WLAN network. If not, manually select and connect to the WLAN network.
- If the This WLAN network has no Internet access. Connect anyway? message is displayed when you connect to the device WLAN, tap CONNECT. Otherwise, you cannot log in to the system. The actual UI and messages may vary with mobile phones.
- 3. Select a login user and enter the password.

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.

9.2 How Do I Connect to the Local Commissioning Screen of PV Products?

- 1. Log in to the FusionSolar app and choose **Me** > **Commission Device**.
- 2. Select the target device and connect to the WLAN of the device as prompted.



D 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 to log in for the first time and change the password as prompted.
- 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.
- If the login screen is not displayed after you scan the QR code, check whether the device is correctly connected to the WLAN network. If not, manually select and connect to the WLAN network.
- If the This WLAN network has no Internet access. Connect anyway? message is displayed when you connect to the device WLAN, tap CONNECT. Otherwise, you cannot log in to the system. The actual UI and messages may vary with mobile phones.
- 3. Select a login user and enter the password.

NOTE

If the system prompts you to set a password upon the first power-on, set the password and then log in. If not, use the initial password **00000a** to log in.

9.3 Upgrading the Charger Software Version

9.3.1 What Should I Do If the Upgrade Package Obtained from an iPhone Cannot Be Selected on the Upgrade Screen?

Cause

In the iOS system, the upgrade package can be selected only from the software installation path. If the upgrade package is not in the software installation path, the upgrade cannot be performed. You need to place the upgrade package in the installation path before the upgrade.

Procedure

Method 1: Share the upgrade package to the FusionSolar app.

Deselect All	1 Item		Done	Deselect All	1 Item		ne
Q Search				Q Search			
SUN2000LV2 OOR0ge.zip 2022/10/11 2.1 MB				SUN2000LV2 00R0ge.zip 2022/10/11 2.1 MB			
				zip SUN2000LV2 ZIP Archive · 2.1	00R001C00SPC	2124_p	×
				AirDrop FusionS	olar More		
				Сору)	ß	ť
				Quick Look		٢	>
1 item,	19.33 GB availa	ble		Add Tags		\bigcirc	>
		创	\odot	Save to Files		Ē	3

Method 2: Save the upgrade package to the specified path (FusionSolar/ SolarMate/upGradePatch) of the FusionSolar app.



9.4 What Should I Do If the Device Is Disconnected from the App When I Switch the Local Commissioning Screen to the Background?

Symptom

During local commissioning, you may need to switch the app to the background (for example, uploading an upgrade package, uploading a photo, or scanning a QR code for WLAN connection). When you switch back to the app screen, a message is displayed, indicating that the device is disconnected from the app and you need to log in again.

Solution

- 1. Tap Settings > Apps & services, and choose App launch.
- 2. Tap Manage manually > Run in background for the FusionSolar app.



NOTE

The menu name may vary according to the mobile phone brand.

9.5 How Can I Change the WLAN Password of a Device?

1. Access the FusionSolar app and tap :: > WLAN Configuration on the login screen.

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- 2. In **PV Products**, select the target device and connect to the WLAN of the device as prompted.
- 3. After the login is successful, the screen for resetting the WLAN password is displayed.



9.6 How Can I Delete the Offline Legacy Devices in the FusionSolar SmartPVMS After I Use a New SmartGuard?

Cause

After a new SmartGuard is used and a new EMMA is connected to the plant, the new EMMA automatically inherits the legacy devices of the old EMMA. In this case, you need to log in to the FusionSolar SmartPVMS to delete the offline legacy devices.

Solution

- 1. Log in to the FusionSolar SmartPVMS as an owner.
- 2. Choose **Monitoring** > **Monitoring** from the main menu.
- 3. In the navigation pane, select a company or plant, and click the **Device Management** tab page.
- 4. Select the legacy devices to be deleted from the device list and click **Delete**.