WI-FI CONNECTION GUIDE

Your solar power station on your phone

POWLAND SMS-12KW 12kW 48V WiFi

The «Solar of Things» app shows how much the sun is producing, how charged the battery is and what the house is consuming, from anywhere with internet access.



Solar of Things

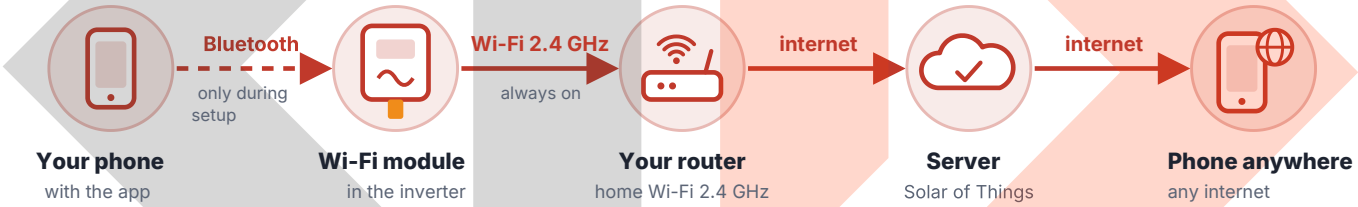
A free app for Android and iPhone. Point your phone camera at the QR code of your store or search the store for **Solar of Things.**

The app interface is in English; button names in this guide are given as they appear on screen.

App Store
iPhone

Google Play
Android

How it works



Bluetooth is needed **only once:** for the phone to pass the name and password of your Wi-Fi network to the module. After that, the module sends the inverter data through the router to the server by itself, and you can view it from anywhere: at home, at work, on holiday.

What to prepare

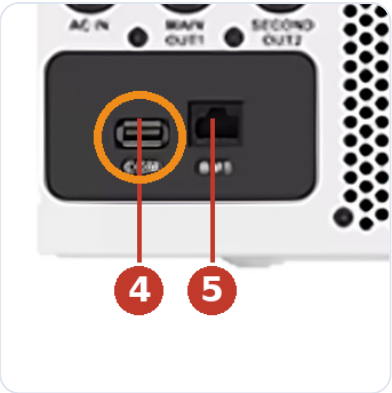
- **A phone with internet** (Android or iPhone). Turn on **Bluetooth;** on Android also turn on **location:** without it the phone may not find the module.
- **Wi-Fi module.** The Wi-Fi module plugs into the WIFI port (USB socket) on the bottom panel.
- **Inverter switched on,** from the battery or the sun. The module is powered by the inverter.
- **The name and password of a 2.4 GHz Wi-Fi network.** The module cannot see 5 GHz networks. The password is case-sensitive.
- **Module ID.** Take a photo of the module sticker: the ID (number) and QR code are needed in steps 3 and 4.
- **Wi-Fi signal near the inverter.** Stand next to the inverter with your phone and check that the home network reaches it.

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1 Plug the module into the WIFI (USB) port

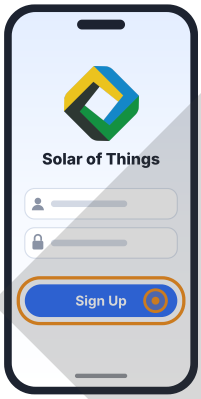
1. Find the **WIFI (USB)** port on the bottom panel of the inverter (it may be labelled COM in promotional photos); it is circled in the photo.
2. Push the Wi-Fi module in all the way. If the module has a latch (screws), tighten it.
3. Switch on the inverter and wait about a minute: the **PWR** (power) indicator on the module lights up.
4. Not the **BMS port** (No.5): that one is for the battery link cable.

> On the inverter housing, the module port is labelled **WIFI (USB);** next to it is the **BMS** (RJ45) port for the battery.



④ **WIFI (USB):** Wi-Fi module (labelled COM in this photo). ⑤ **BMS:** battery communication cable.

2 Install the app and sign up

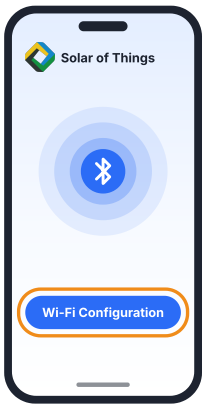


1. Install **Solar of Things** using the QR code on the first page. On first launch, allow the app access to Bluetooth, location and the camera: without them it will not find the module or scan the QR code.
2. On the start screen, tap **Sign Up** and fill in your details as prompted on screen.
3. Log in to the app with your new username and password.

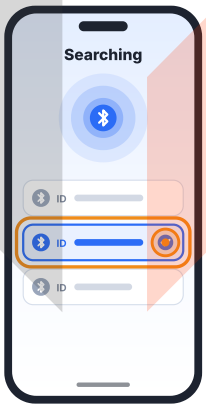
> **Write down your username and password.** With them you can log in to the app on another phone, and your family can view the same station.

3 Give the module your Wi-Fi details (via Bluetooth)

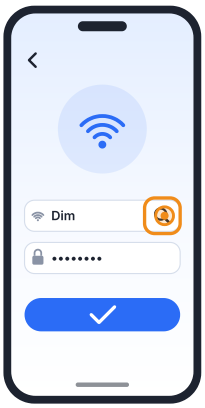
Stand next to the inverter with your phone (1–3 m), with Bluetooth on and the PWR indicator on the module lit.



Tap **Wi-Fi Configuration** to set up Wi-Fi.



The **Searching** page shows nearby modules. Select the one whose **ID matches the sticker.**

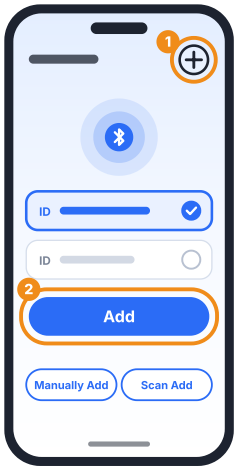


Tap the search icon, select your network **2.4 GHz.** Enter the password and confirm.

The module remembers the network. You only need to repeat this step if you change the router, network name or password. The screen images are for guidance: the look depends on the app version.

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4 Add the inverter to your account



Keep the phone close to the inverter. Choose any of these methods:

Automatically. On the home screen, tap + in the top right corner **(1).**
The app finds nearby modules by itself. Select the ID that matches the module sticker and tap **Add (2).**

Manually. Manually Add: enter the module ID, the station name (for example «Home») and other details as prompted.

By QR code. Scan Add: point the camera at the QR code on the sticker of the module.

Check the ID before scanning. If there is no ID sticker on the module or the inverter, the ID is shown on the Wi-Fi setup page in the app (step 3).

5 Check that everything works

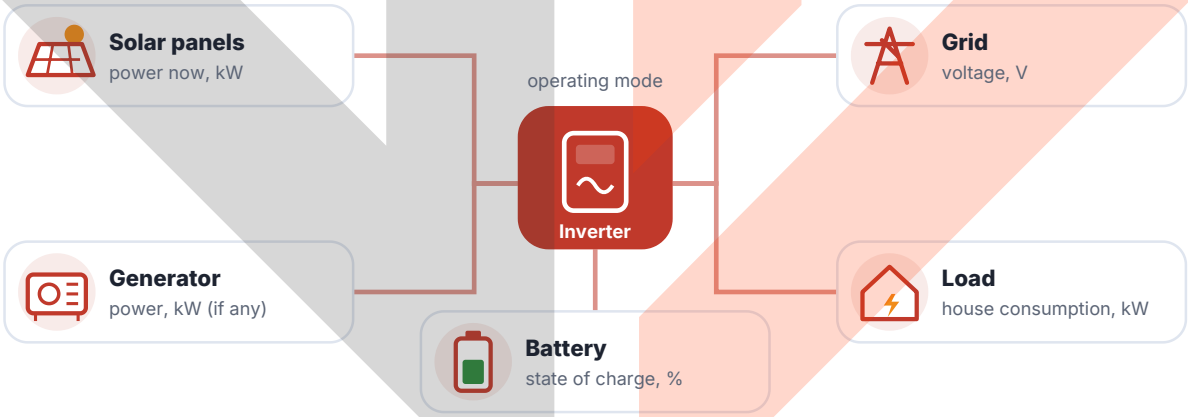
On the module:

- **NET** stays on and briefly goes off: the module has connected to the router.
- **SRV** on: there is a connection to the server, data flow to the app.

In the app:

- The inverter appears in the device list with the status «normal», not «offline».
- The first data appear a few minutes after adding.

What you see in the app



Today	This month	All time	Charts
produced, kWh	produced, kWh	produced, kWh	output by day and month

Normal · Alarm · Offline

Device status in the list. **Alarm:** the inverter is reporting an error or warning; **offline:** the module is not sending data (no Wi-Fi, internet or power).

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Wi-Fi module indicators

Indicator	How it lights	What it means
PWR	on off	power is on, the module is working no power: the module is not fully inserted or the inverter is off
COM	flashing off	the module is exchanging data with the inverter (as it should) no data exchange with the inverter
NET	on 3 s, off 0.3 s flashing fast (0.3 s / 0.3 s)	connected to the router not connected to the router: repeat step 3
SRV	on off	connected to the Solar of Things server no connection to the server: check the internet on the router

Indicators as described by the module manufacturer. Yours may have fewer of them or label them differently.

Router requirements

- **2.4 GHz** network. If the router broadcasts 2.4 and 5 GHz under one name, separate them in the router settings (for example «Home» and «Home_5G»).
- Network name and password in Latin characters, without spaces or special characters.
- WPA or WPA2 encryption (not WPA3 only).
- MAC address filter off, or the module added to the allowed list.
- A metal housing and walls weaken the signal: if reception near the inverter is poor, install a range extender (repeater).

POWLAND SMS-12KW specifics

- A model with two solar inputs (PV1, PV2) and two outputs: the app shows the total solar power.

> **Important.** The Wi-Fi module goes **only into the WIFI (USB) port,** the battery communication cable only into the **BMS port.** Do not change settings in the app that you are not sure about: wrong voltages and currents can damage the battery. Check against the inverter manual.

If it does not work

Problem	What to do
First, «Diagnose»	After a successful or failed setup, tap **Diagnose** in the top right corner: the app checks the module and shows at which stage the problem is.
The Searching page is empty	Check that Bluetooth and location are on and that the app has the permissions. Move closer (1–3 m). Check that PWR is lit. Remove the module for 10 s, plug it back in and restart the app.
The module does not connect to Wi-Fi	Is the network 2.4 GHz? Is the password correct (upper and lower case)? Restart the router and repeat step 3. Do not set up via a hotspot on the same phone.
Device «offline», data not updating	Check the internet on the router and the signal near the inverter; look at NET and SRV. If you changed the router or password, repeat only step 3; there is no need to add the device again.
Device already added to another account	Ask the person who added it to remove the device from their account, or log in with their username and password. If that does not work, contact us (contacts at the bottom of the page).

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