

EPEVER WiFi-2.4G-RJ45-D

EPEVER WiFi Adapter for Solar Charge Controller User Manual

Model: WIFI-2.4G-RJ45-D

1. PRODUCT OVERVIEW

The EPEVER WiFi Adapter (Model: WIFI-2.4G-RJ45-D) is designed to enable wireless monitoring and parameter setting for EPEVER solar charge controllers, inverters, and inverter/chargers equipped with an RJ45 communication port. This adapter facilitates real-time data transmission and supports both local monitoring and cloud-based operation.



Figure 1: Front view of the EPEVER WiFi Adapter.



Figure 2: Back view of the EPEVER WiFi Adapter, showing the serial number (SN:04510146093XRJTQ-00759) and QR code for easy setup.

Key Features:

- Applicable to EPEVER controls, inverters, or inverters/chargers with an RJ45 port.
- Immediate use after connection, ensuring easy and convenient operation.
- Direct power supply via the communication port, eliminating the need for external power.
- Communication distance of up to 20 meters.
- Supports local monitoring and "EPEVER Cloud" working mode.

2. SETUP AND INSTALLATION

Before installation, ensure your EPEVER device has an RJ45 communication port. The WiFi adapter draws power directly from this port.

2.1 Compatibility

The EPEVER WiFi Adapter is compatible with various EPEVER controllers, including:

WiFi Adapter Fit for EPEVER Controllers



The EPEVER WiFi 2.4G RJ45 D WiFi adapter is mainly used for real-time transmission of various power generation data from EPEVER controllers, inverters, hybrid inverter chargers, etc. to the EPEVER cloud server. It supports wireless monitoring and parameter setting of on-site devices via cloud servers, mobile apps, or large screens.



Figure 3: EPEVER WiFi Adapter compatibility with Tracer-AN, XTRA, TRIRON-N, VS-BN, Tracer-BP, Tracer-BN, and iTracer series controllers.

2.2 App Download and Installation

To monitor and control your device, download the "Solar Guardian" app. Search for "EPEVER Guardian" in your device's app store.



Figure 4: QR codes for downloading the Solar Guardian App from [Google Play](#) and [Apple App Store](#).

2.3 Connecting the Adapter

Plug the EPEVER WiFi Adapter into the RJ45 port of your compatible EPEVER solar charge controller or inverter. The adapter will power on automatically.

3. OPERATING THE DEVICE

The EPEVER WiFi Adapter supports two main operating modes: Local Offline Monitoring and Online Monitoring via EPEVER Cloud.

3.1 Local Offline Mode Operation

This mode allows direct connection to the adapter's Wi-Fi hotspot for local monitoring and parameter adjustment without an internet connection. The communication distance is up to 20 meters.

1. Download the "SOLAR GUARDIAN" app.
2. Click on "Local Connection" within the app.
3. Select "Wi-Fi" and click "Add".
4. Select "Products Series" to choose the solar controller that meets your needs. For "Communication ID number", note: Controller, Hybrid Default 1 WiFi Gateway. Click "Select WiFi Gateway" and select "Add".
5. Click "Select WiFi Gateway" to select the "HN-EP*****" network. It should show as connected.

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Video 1: Demonstrates the local offline connection process for the EPEVER WiFi Adapter, including app navigation and device

selection.

DOWNLOAD APP Solar Guardian



For Android

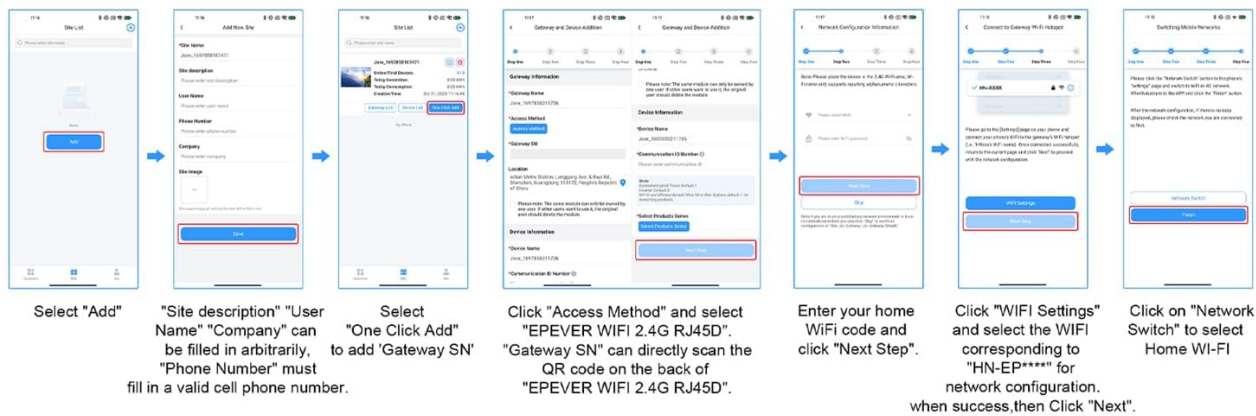


Google Play



Apple App Store

Online Mode Operation



Local Offline Mode Operation

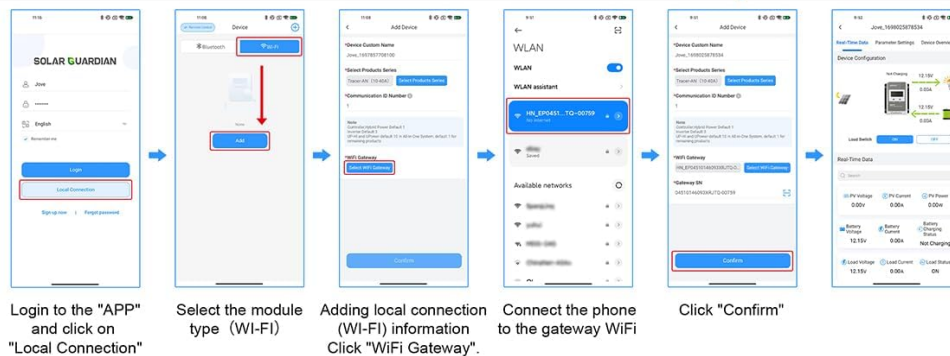


Figure 5: Detailed steps for both Online Mode and Local Offline Mode operation within the Solar Guardian App. This image illustrates the user interface for adding a new site, selecting the product series, and connecting to the WiFi gateway.

3.2 Online Mode Operation (EPEVER Cloud)

For remote monitoring and control, connect the adapter to your home Wi-Fi network and link it to the EPEVER Cloud. A 2.4 GHz Wi-Fi network is required.

1. Download the "SOLAR GUARDIAN" app.
2. Login to the app. For first-time login, you need to register your account.
3. Click "Add".
4. Fill in "Site description", "User Name", "Company" (arbitrarily), and a valid "Phone Number".
5. Select "One Click Add".
6. Click "Access Method" and select "EPEVER WIFI 2.4G RJ45D". The "Gateway SN" can be scanned directly from the QR code on the back of the adapter. Ensure "Location" is checked and fill in the "Communication ID Number" according to prompts. Select the corresponding product series.
7. Enter your home Wi-Fi code and click "Next Step".

8. Click "WIFI Settings", select the Wi-Fi corresponding to "HN-EP*****" for network configuration. The configuration is successful when it shows "Connected".
9. Switch to your home Wi-Fi. You can click "Network Switch" to switch to Home Wi-Fi.
10. The display of "Online" indicates a successful connection.

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Video 2: Illustrates the online connection process for the EPEVER WiFi Adapter, guiding users through app login, adding a device, and connecting to a home Wi-Fi network.

3.3 Real-Time Data Monitoring

After a successful connection, the app will automatically read and display real-time parameters of your solar system, including PV voltage, current, power, battery voltage, current, temperature, and load information.

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Video 3: Shows how to monitor real-time data from your EPEVER solar system through the app, including PV information, load information, and battery status.

4. PARAMETER SETTINGS

The app allows for manual adjustment of various parameters for your solar charge controller. The system automatically reads current parameters, which can then be modified as needed.

4.1 Battery Parameter Setting

You can manually set battery parameters such as battery capacity, boost charging time, equalize charging time, and temperature limits. The system automatically reads the data, and you can apply changes manually.

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Video 4: Demonstrates how to access and modify battery parameters within the app, including setting battery capacity and temperature limits.

4.2 Battery Control Parameter

The system automatically reads battery control parameters. If you need to modify them, select "Rated voltage" as 12V/24V and "Battery Type" as "User". You can then adjust parameters like overvoltage disconnect, charging limit, and float charging voltage. Click "Reset" to restore default parameters.

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Video 5: Guides through adjusting battery control parameters, such as voltage settings and battery type, and how to reset to default values.

4.3 Load Configuration

Load control modes include Manually Setting, Load pure light control setting, Load pure light control + Timer, and Timing Control. We recommend selecting "Manually Setting". You can also set the "Manually Default Switch" to "Manually off by default" or "Manually on by default".

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Video 6: Explains how to configure load settings, including manual control and default switch settings.

4.4 Device Parameter Settings

Device-specific parameters can be manually configured, such as backlight timeout, internal temperature upper limit, and internal over temperature limit.

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Video 7: Details how to adjust device parameters like backlight timeout and temperature limits.

4.5 Basic Parameter Settings

This section allows you to turn the load switch ON/OFF, return to default settings (Recovery), and clear accumulated energy data.

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Video 8: Shows how to manage basic settings, including turning the load on/off and clearing accumulated energy data.

5. DATA ANALYSIS AND ALARMS

The Solar Guardian app provides tools for data analysis and alarm information to help you monitor your system's performance and health.

5.1 Data Analysis

View daily generation, monthly generation, annually generation, total generation, daily usage, monthly usage, annually usage, and total usage. This helps in understanding the energy flow and consumption of your solar system.

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Video 9: Demonstrates how to access and interpret data analysis charts for daily generation and battery charging status.

5.2 Alarm Information

The app provides an overview of device parameters and any active alarms, ensuring you are promptly informed of any issues with your system.

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Video 10: Shows how to view device overview and alarm information within the app.

6. SPECIFICATIONS

Parameter	EPEVER WiFi 2.4G RJ45 D
Working voltage	5V±0.5V (Powered by RS485 com. port)
Power consumption	Peak emission: 150mA; Idle: 310uA
Communication protocol	EPEVER communication protocol V1.1
Communication para	115200Bps, 8N1
Communication method	RS485
Interface standard	EPEVER general communication standard V1-1.0
Operating frequency	2.4 ~ 2.4835GHz
Environment temperature	-40°C ~ 85°C
Enclosure	IP54

Parameter	EPEVER WiFi 2.4G RJ45 D
Dimension	63 mm x 19 mm x 10 mm
Net weight	7.7g

Figure 6: Technical Specifications of the EPEVER WiFi 2.4G RJ45 D adapter.

Note: The WiFi adapter working voltage is 4.5V~5.5V and peak emission is 150mA, which is only suitable for devices that meet this requirement.

7. MAINTENANCE AND TROUBLESHOOTING

7.1 Maintenance

- Keep the adapter clean and free from dust and moisture.
- Ensure proper ventilation around the connected EPEVER device.
- Regularly check for firmware updates for the adapter and the Solar Guardian app to ensure optimal performance and compatibility.

7.2 Troubleshooting

- **Connection Issues:** Ensure the adapter is securely plugged into the RJ45 port. Verify that your mobile device's Wi-Fi is enabled and connected to the correct network (either the adapter's hotspot for local mode or your home Wi-Fi for online mode).
- **App Not Connecting:** Check if the Solar Guardian app is the latest version. Ensure the adapter is within the 20-meter communication range for local mode. For online mode, confirm your home Wi-Fi is 2.4 GHz and has a stable internet connection.
- **Data Not Updating:** Refresh the data in the app. Ensure the adapter has a stable connection to both the EPEVER device and the network.
- **Parameter Setting Issues:** Ensure you are in the correct mode (local or online) for parameter adjustment. Some parameters may be read-only if the "Rated voltage" is set to "Auto". Change it to 12V/24V and "Battery Type" to "User" to enable modification.

8. WARRANTY AND SUPPORT

8.1 Warranty Information

Please refer to the warranty card included with your product for detailed warranty terms and conditions. Keep your purchase receipt as proof of purchase for warranty claims.

8.2 Customer Support

For technical assistance or support, please contact EPEVER customer service. You can find contact information on the official EPEVER website or in the product packaging.

If you need help, contact us: support@szgoland.com

