

Zendure AIO2400

Zendure AIO 2400 Balcony Power Plant Storage System User Manual

Model: AIO2400

1. INTRODUCTION

The Zendure AIO 2400 is an innovative all-in-one energy storage solution designed for balcony power plants. It integrates a high-capacity LiFePO₄ battery, a microinverter, and advanced energy management features to maximize solar energy utilization and provide reliable power for your home. This manual provides essential information for the safe and efficient setup, operation, and maintenance of your Zendure AIO 2400 system.

2. PRODUCT OVERVIEW

The Zendure AIO 2400 combines several key components into a compact and efficient unit:

- **Integrated Design:** An all-in-one unit that includes a 2400Wh LiFePO₄ battery and an 800W microinverter (EZ1-M).
- **High Capacity Battery:** Features a 2400Wh LiFePO₄ battery, offering a long cycle life of up to 8,000 cycles to 70% capacity.
- **Dual MPPT Solar Input:** Supports up to 1200W solar input with dual Maximum Power Point Tracking (MPPT) for optimized solar energy harvesting.
- **AC Output:** Provides a 1200W AC output to power household appliances.
- **Smart Control:** Monitor and control your system via the Zendure App, offering real-time data and adjustable output settings (0-1200W with precise 1W/30W steps).
- **Durability:** IP65 rated for outdoor use, 0dB noise operation, and TÜV/EMC certified for safety and reliability.
- **Low-Temperature Operation:** Equipped with automatic self-heating for efficient operation down to -20°C.

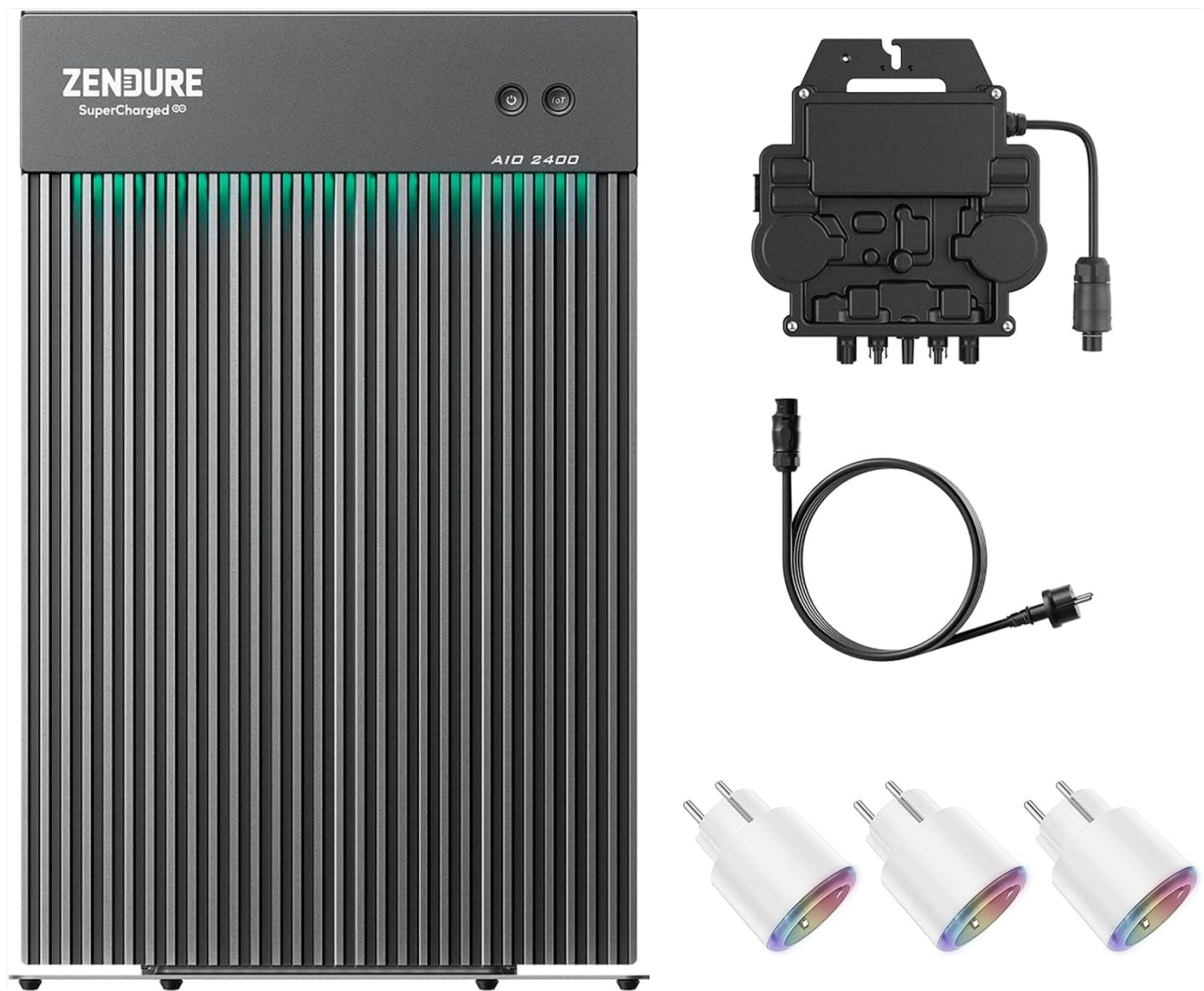
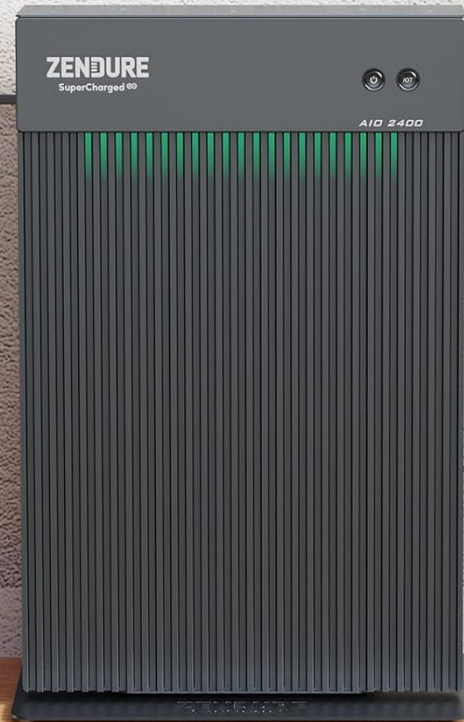


Figure 2.1: Zendure AIO 2400 system components.

ZENDURE

Balkonkraftwerk **AIO 2400** Zweifacher MPPT
Höhere Erzeugungskapazität. Größere Systemflexibilität.



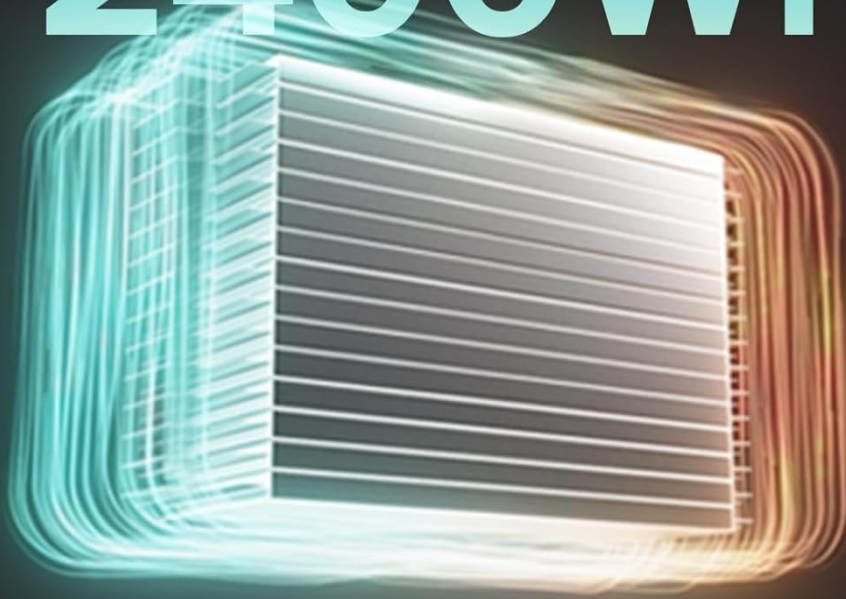
- 1) PV-Eingang 1: 16-60V $\rightleftharpoons$ 14A, 400W Max
- 2) PV-Eingang 2: 16-60V $\rightleftharpoons$ 20A, 800W Max
- 3) Unterstützt 1560W PV-Module
- 4) MPPT Wirkungsgrad: 99%

Figure 2.2: Zendure AIO 2400 with PV input details.

AIO 2400 mit 2400Wh LiFePO₄

Längere Lebensdauer
Schnellere Ladeeffizienz: 2h-3h Ladezeit

2400Wh



4000 Zyklen bis **≥80%** Kapazität
8000 Zyklen bis **≥70%** Kapazität

Figure 2.3: Zendure AIO 2400 LiFePO₄ battery capacity and lifespan.

3. SETUP AND INSTALLATION

The Zendure AIO 2400 is designed for straightforward, plug-and-play installation, minimizing the need for professional electricians.

3.1 Unpacking

Carefully unpack all components and verify against the packing list. Ensure no parts are damaged during transit. Keep packaging for future transport or storage.

3.2 Placement

Choose a suitable location for the AIO 2400. It can be installed outdoors due to its IP65 rating. Ensure the location is stable, well-ventilated, and allows for easy access to connections. Avoid direct prolonged exposure to extreme heat or cold beyond specified operating temperatures, although the unit has self-heating capabilities.

3.3 Connecting Solar Panels

Connect your solar panels to the designated PV input ports on the AIO 2400. The system supports dual MPPT inputs, allowing for flexible panel configurations. Ensure all connections are secure and properly polarized.





Figure 3.1: Rear view of AIO 2400 with microinverter connections.

3.4 Connecting to Grid/Household

Plug the AC output cable from the AIO 2400 into a standard household outlet. The system will automatically detect the grid connection and begin operation. The included Shelly Plus Plug S devices can be used to monitor and control individual appliances.

Höhere Sicherheit und leichtere Installation



Sie brauchen keine teuren Elektriker zu bezahlen, die AIO 2400 ist Plug and Play!

Starke Anwendbarkeit von Szenarien



IP65



0db Noise



TÜV- und EMC-zertifiziert






Figure 3.2: Easy and safe installation of Zendure AIO 2400.

4. OPERATION

Once installed, the Zendure AIO 2400 operates largely automatically. For advanced control and monitoring, use the Zendure App.

4.1 Initial Power-On

After connecting solar panels and the AC output, the unit will power on. Observe the multi-colored status light for operational status. Green indicates normal operation.

4.2 Zendure App Control

Download the Zendure App from your device's app store. Connect the AIO 2400 via Bluetooth or Wi-Fi. The app allows you to:

- Monitor real-time solar input and household consumption.
- Adjust the AC output power from 0-1200W.
- View historical energy generation and usage statistics (daily, weekly, monthly, yearly, total).
- Manage energy storage and discharge settings.



Figure 4.1: Zendure App interface for monitoring and control.

4.3 Energy Management

The AIO 2400 intelligently stores excess solar energy generated during the day for use during evening hours or when solar production is low. This optimizes self-consumption and reduces reliance on grid electricity.

Your browser does not support the video tag.

Video 4.1: Official Zendure AIO 2400 Balcony Power Plant with Storage overview, demonstrating features and benefits.

5. MAINTENANCE

The Zendure AIO 2400 requires minimal maintenance to ensure optimal performance and longevity.

- **Regular Cleaning:** Periodically wipe down the exterior of the unit with a soft, damp cloth to remove dust and debris. Ensure ventilation grilles are clear.
- **Connection Checks:** Annually inspect all cable connections (solar input, AC output) to ensure they are secure and free from corrosion or damage.
- **Software Updates:** Keep the Zendure App updated to the latest version to benefit from new features and performance improvements.
- **Low-Temperature Protection:** The unit features automatic self-heating to protect the battery in cold environments (below -20°C). No manual intervention is typically required for this function.

-20°C Niedrigtemperaturbetrieb

AIO 2400 ist im Inneren mit einer selbsterwärmenden Folie



Figure 5.1: Zendure AIO 2400 automatic self-heating for low-temperature operation.

6. TROUBLESHOOTING

If you encounter issues with your Zendure AIO 2400, refer to the following common troubleshooting steps:

Problem	Possible Cause	Solution
No power output	AC cable disconnected; Unit off; Low battery	Check AC connection; Press power button; Allow solar charging or charge via AC.
No solar input	PV cables disconnected; Insufficient sunlight; Damaged panels	Check PV connections; Ensure panels are in direct sunlight; Inspect panels for damage.

Problem	Possible Cause	Solution
App connection issues	Bluetooth/Wi-Fi off; Unit out of range; App outdated	Enable Bluetooth/Wi-Fi; Move closer to unit; Update Zendure App.
Unusual noise/smell	Internal fault	Immediately disconnect power and contact customer support.

If the problem persists after attempting these solutions, please contact Zendure customer support.

7. SPECIFICATIONS

Key technical specifications for the Zendure AIO 2400:

- **Model Number:** AIO2400
- **Battery Type:** LiFePO4
- **Battery Capacity:** 2400Wh
- **Microinverter Output:** 800W (EZ1-M)
- **Solar Input (Max):** Dual MPPT, 1200W (total)
- **AC Output (Max):** 1200W
- **Material:** Crystalline Silicon, Glass, Polyethylene Terephthalate, Aluminum
- **Protection Rating:** IP65
- **Noise Level:** 0dB
- **Certifications:** TÜV, EMC
- **Operating Temperature:** -20°C to 45°C (with self-heating)
- **UPC:** 850062175587

8. WARRANTY AND SUPPORT

Zendure products are built with quality and reliability in mind. The Zendure AIO 2400 comes with a 10-year warranty, ensuring long-term peace of mind. Flexible solar panels (if purchased separately) typically come with a 12-year warranty.

For technical support, warranty claims, or any questions regarding your Zendure AIO 2400, please visit the official Zendure website or contact their customer service team. Ensure you have your model number (AIO2400) and proof of purchase ready when contacting support.

Zendure Official Website: www.zendure.com

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question