

ELECAENTA UT-25H

ELECAENTA 25W Mini Portable Solar Charger UT-25H User Manual

Model: UT-25H

1. INTRODUCTION

This manual provides instructions for the safe and efficient use of your ELECAENTA 25W Mini Portable Solar Charger, Model UT-25H. This device is designed to convert solar energy into electrical power for charging various portable electronic devices via USB-A and USB-C ports. It features high-efficiency HPBC solar cells and an IP68 waterproof rating, making it suitable for outdoor use.

2. PRODUCT OVERVIEW

Key Features:

- **High Conversion Efficiency:** Utilizes HPBC solar cells with up to 25.4% conversion efficiency for faster charging.
- **Dual Output Ports:** Equipped with one USB-A (Quick Charge 3.0) and one USB-C port for simultaneous charging of multiple devices.
- **Portable Design:** Lightweight (0.42kg) and foldable, making it compact for easy transport and storage.
- **IP68 Waterproof:** Designed to withstand rain, splashes, and dust, suitable for various outdoor environments. Note: The charging port box is not waterproof and must be protected from water during use.
- **Smart Charging:** Features an intelligent chip that automatically recognizes connected devices and adjusts current for optimal charging. Automatic activation in low light conditions ($>50\text{W/m}^2$).
- **Safety Protections:** Includes protection against overvoltage, overcurrent, overheating, short circuit, and reverse charging.



Figure 2.1: High-efficiency HPBC solar cells with 25.4% conversion rate.

DOTATO DI PORTE DI USCITA DUALI USB-C E USB-A

Supporta 2 porte di uscita per caricare contemporaneamente (massimo 5/4A 20W)

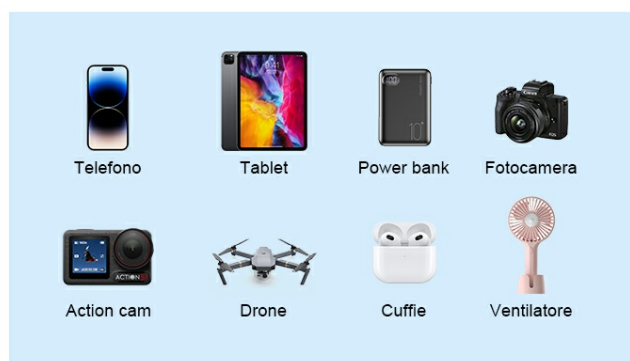


Figure 2.2: Internal structure and layers of HPBC solar cells.

Included Components:

- 1 x ELECAENTA 25W Portable Solar Panel
- 1 x USB-C to USB-C Cable
- 2 x Carabiners
- 1 x User Manual (this document)



Figure 2.3: Package Contents - Solar panel, USB-C cable, carabiners, and user manual.

3. SETUP

1. **Unfold the Solar Panel:** Carefully unfold the solar panel completely to expose all solar cells.
2. **Positioning:** Place the solar panel in direct sunlight. For optimal performance, ensure the panel is angled directly towards the sun. Avoid shaded areas, as even partial shading can significantly reduce charging efficiency.
3. **Securing the Panel:** Use the included carabiners to attach the solar panel to a backpack, tent, or other suitable object to maintain its position and angle towards the sun, especially during outdoor activities like hiking or camping.



Figure 3.1: Proper positioning of the solar panel for charging.

4. OPERATING INSTRUCTIONS

1. **Connect Your Device:** Once the solar panel is exposed to sufficient sunlight, connect your electronic device (smartphone, tablet, power bank, etc.) to either the USB-A or USB-C output port using a compatible charging cable.
2. **Automatic Charging:** The solar charger will automatically detect your device and begin charging. No power button is required. A small LED indicator on the port box may illuminate to confirm power output.
3. **Dual Device Charging:** You can charge two devices simultaneously. The total power output will be intelligently distributed between the two ports. For maximum charging speed for a single device, connect only one device.

4. **Monitoring Charging:** Monitor your device's charging indicator to confirm it is receiving power. Charging efficiency may vary based on sunlight intensity and angle.
5. **Disconnecting:** Disconnect your device once it is fully charged or when solar conditions are no longer optimal.



Figure 4.1: Connecting devices to the USB-A and USB-C ports.

5. MAINTENANCE

- **Cleaning:** Wipe the solar panels with a soft, damp cloth to remove dust or dirt. Do not use harsh chemicals or abrasive materials. Ensure the panel is dry before folding or storing.
- **Storage:** When not in use, fold the solar panel and store it in a cool, dry place away from direct sunlight and extreme temperatures.
- **Port Protection:** Always ensure the charging port box is protected from water, especially during rain or in wet conditions, as it is not waterproof.
- **Inspection:** Periodically inspect the panel and cables for any signs of damage. Do not use if damaged.



Figure 5.1: IP68 waterproof rating for the solar panel surface. Remember to protect the port box.

6. TROUBLESHOOTING

Problem	Possible Cause	Solution
Device not charging.	Insufficient sunlight. Incorrect panel angle. Damaged cable or device. Port box is wet.	Move panel to direct sunlight. Adjust panel angle towards the sun. Try a different cable or device. Ensure port box is dry and protected.
Slow charging speed.	Partial shading on the panel. Low sunlight intensity (cloudy day). Charging multiple devices.	Ensure no shadows fall on the panel. Optimize panel position for maximum light. Charge one device at a time for faster speed.
LED indicator not lit.	No power output from the panel. Insufficient sunlight.	Ensure panel is in direct sunlight. Check for any obstructions.

7. SPECIFICATIONS

Feature	Detail
Model Number	UT-25H
Maximum Power	25 Watt
Solar Cell Efficiency	25.4% (HPBC cells)
Output Ports	1 x USB-A (QC3.0), 1 x USB-C
Output Voltage	5 Volt (USB-A: 5V/3A, USB-C: 5V/3A single use; 5V/4A total simultaneous use)
Material	ETFE, HPBC
Product Dimensions (Folded)	18L x 11.3W x 3.8H cm (approx. 180x113x38mm)
Product Weight	0.42 kg
Waterproof Rating	IP68 (for solar panel surface)
Country of Origin	China



Figure 7.1: Compact dimensions and lightweight design.

8. WARRANTY AND SUPPORT

The ELECAENTA 25W Mini Portable Solar Charger (Model UT-25H) comes with a **2-year warranty** from the date of purchase. This warranty covers manufacturing defects and material faults under normal use.

For warranty claims, technical support, or any inquiries regarding your product, please contact ELECAENTA customer service through the retailer where the product was purchased or visit the official ELECAENTA website for contact information.

Please retain your proof of purchase for warranty validation.

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

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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