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› [ECTIVE SSI 25 2500W/12V Pure Sine Wave Inverter with MPPT Charge Controller, Charger, NVS and UPS Function User Manual](#)

ECTIVE SSI252

ECTIVE SSI 25 2500W/12V Pure Sine Wave Inverter

Model: SSI252 | Brand: ECTIVE



Front view of the ECTIVE SSI 25 2500W/12V Pure Sine Wave Inverter, showcasing its robust design and branding.

INTRODUCTION

This user manual provides essential information for the safe and efficient operation of your ECTIVE SSI 25 2500W/12V Pure Sine Wave Inverter. This device integrates an MPPT charge controller, a battery charger, and features Network Priority Switching (NVS) and Uninterruptible Power Supply (UPS) functions, making it a versatile solution for off-grid and mobile power needs. Please read this manual thoroughly before installation and use to ensure optimal performance and safety.

IMPORTANT SAFETY INSTRUCTIONS

Failure to follow these instructions may result in electric shock, fire, or serious injury. Save these instructions for future reference.

- **Electrical Safety:** All electrical work must be performed by qualified personnel. Ensure proper grounding.
- **Ventilation:** Install the inverter in a well-ventilated area to prevent overheating. Do not block ventilation openings.
- **Environment:** Avoid exposure to water, moisture, direct sunlight, and extreme temperatures.
- **Battery Connection:** Connect batteries with correct polarity. Reverse polarity can damage the unit.
- **Load Capacity:** Do not exceed the inverter's rated power output. Overloading can cause damage or fire.
- **Maintenance:** Disconnect all power sources before performing any maintenance or cleaning.
- **Children:** Keep the device out of reach of children.

Maximale Sicherheit



Robustes
Gehäuse



Überlast-
schutz



Überhitz-
schutz



Netzvorrang-
schaltung



This image illustrates the robust housing, overload protection, overheat protection, and network priority switching features of the ECTIVE SSI 25 inverter, along with its dimensions (520mm length, 220mm width, 150mm height).

PRODUCT OVERVIEW

The ECTIVE SSI 25 is a high-performance pure sine wave inverter designed to provide reliable AC power from a 12V DC source. It features an integrated MPPT solar charge controller and a battery charger, offering a comprehensive power management solution.

Key Features

- **Pure Sine Wave Output:** Provides clean and stable AC power suitable for sensitive electronics.
- **Integrated MPPT Solar Charge Controller:** Efficiently charges batteries from solar panels (up to 550W, 70V).
- **Built-in Battery Charger:** 20A integrated charger for charging batteries from shore power.
- **Network Priority Switching (NVS):** Automatically switches between battery and shore power.
- **Uninterruptible Power Supply (UPS) Function:** Ensures continuous power supply during outages.
- **High Power Output:** Delivers 2500W continuous power.
- **Multiple Connection Ports:** Includes USB, remote control port, shore power input, and solar input.



The image shows the ECTIVE SSI 25 inverter, a black and blue device with a prominent 'SSI 25' label. A circular badge on the left side of the device indicates a '3 YEARS WARRANTY'.

ECTIVE
SSI25 – WECHSELRICHTER

3 YEARS WARRANTY
ECTIVE

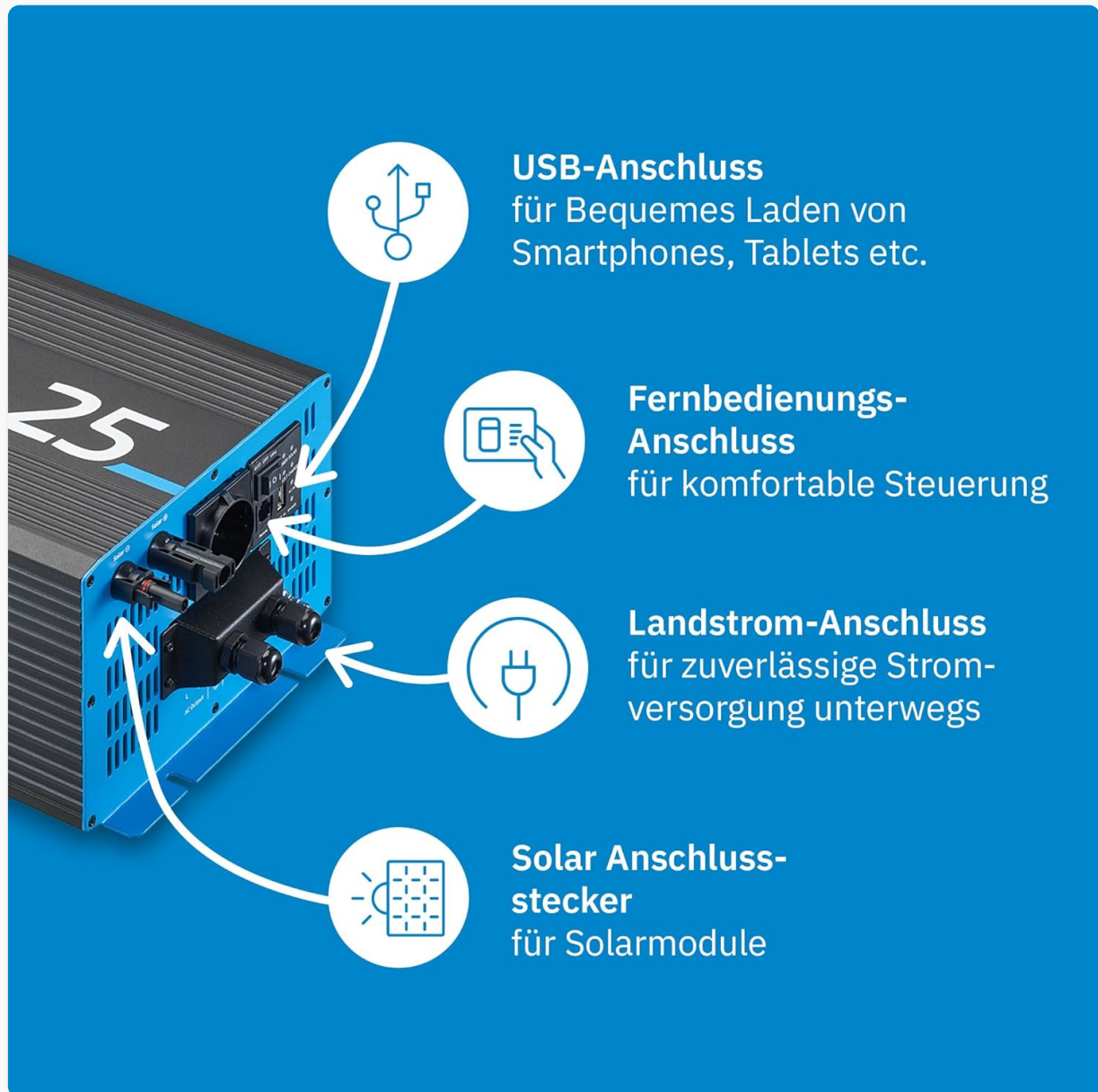
SSI 25

- 
Für Geräte bis 2500W Leistung
- 
Integriertes 20-A Batterieladegerät
- 
Integrierter MPPT-Solarladeregler (550W zu 70V)

This image visually represents the main features of the SSI 25: suitability for devices up to 2500W, an integrated 20A battery charger, and an integrated MPPT solar charge controller (550W to 70V).

Components and Connections

Familiarize yourself with the various components and connection points of the SSI 25 inverter.



This image details the connection points: a USB port for charging smartphones and tablets, a remote control port for convenient operation, a shore power connection for reliable power supply on the go, and solar connection plugs for solar modules.

- **DC Input Terminals:** For connecting to the 12V battery bank (red for positive, black for negative).
- **AC Output Socket:** Standard AC outlet for connecting appliances.
- **AC Input Terminal:** For connecting to shore power (e.g., campsite hookup).
- **Solar Input Terminals:** For connecting solar panels to the MPPT controller.
- **USB Port:** For charging small electronic devices.
- **Remote Control Port:** For connecting an optional remote display.
- **Cooling Fans:** Ensure proper airflow.

INSTALLATION AND SETUP

1. Mounting the Inverter

Choose a dry, cool, and well-ventilated location for mounting the inverter. Ensure there is sufficient space around the unit for airflow, especially around the cooling fans. Mount the inverter securely using appropriate fasteners.

2. Battery Connection

1. Ensure the inverter is turned off and all loads are disconnected.
2. Connect the positive (+) battery cable (red) to the positive (+) terminal on the inverter.
3. Connect the negative (-) battery cable (black) to the negative (-) terminal on the inverter.
4. Ensure all connections are tight and secure to prevent voltage drop and overheating.
5. It is recommended to install an appropriate fuse or circuit breaker close to the battery for protection.

3. Solar Panel Connection (Optional)

If using solar panels, connect them to the dedicated solar input terminals. Ensure the solar panel voltage and current are within the inverter's specifications (max 550W, 70V). Observe correct polarity.

4. AC Input (Shore Power) Connection (Optional)

Connect a standard AC power cord from your shore power source to the AC input terminal on the inverter. This enables the integrated battery charger and NVS/UPS functions.

5. AC Output Connection

Plug your AC appliances into the AC output socket(s) on the inverter. Ensure the total power consumption of your appliances does not exceed the inverter's 2500W continuous output.

WECHSELRICHTER BY ECTIVE

Hochwertiger Sinusstrom

WIE ZU HAUSE – ABER UNTERWEGS



This image depicts the inverter providing high-quality pure sine wave power, similar to household electricity, enabling the use of sensitive electronics like laptops while on the go.

OPERATION

Turning On/Off

After all connections are securely made, press the power button on the inverter to turn it on. The indicator lights will illuminate, showing the operational status. To turn off, press the power button again.

Monitoring

The inverter may feature an LCD display or LED indicators to show battery voltage, output power, charging status, and error codes. Refer to the specific display details for your model.

Using the MPPT Charge Controller

When solar panels are connected and sufficient sunlight is available, the integrated MPPT controller will automatically begin charging the connected battery bank. It optimizes the power extraction from the solar panels to maximize charging efficiency.

Using the Battery Charger and NVS/UPS

When shore power is connected, the integrated battery charger will automatically charge the battery bank. The Network Priority Switching (NVS) function ensures that connected AC loads are primarily powered by shore power. If shore power is disconnected or fails, the UPS function will seamlessly switch the load to be powered by the inverter from the battery bank, providing an uninterrupted power supply.

VIELSEITIGE ANWENDUNG

Überall stets verbunden

Ideal in Wohnmobilen,
beim Camping, im Boot
oder als Notstrom-
versorgung für
Haushaltsgeräte

GEEIGNET FÜR:



Mobiles
Klimagerät



Haartrockner



Elektrogrill



Spülmaschine



Kleiner
Backofen

This image illustrates the versatile applications of the ECTIVE SSI 25, suitable for mobile air conditioners, hair dryers, electric grills, dishwashers, and small ovens, highlighting its utility in motorhomes, camping, boats, or as an emergency power supply for household appliances.

MAINTENANCE

Regular maintenance ensures the longevity and reliable operation of your ECTIVE SSI 25 inverter.

- **Cleaning:** Periodically clean the exterior of the inverter with a dry, soft cloth. Do not use liquid cleaners or solvents.
- **Ventilation:** Ensure the cooling vents are free from dust and debris. Use compressed air to clear any

blockages if necessary.

- **Connections:** Regularly check all electrical connections (battery, solar, AC input/output) for tightness and corrosion. Tighten any loose connections.
- **Battery Health:** Monitor the health of your battery bank. A healthy battery is crucial for optimal inverter performance.

Do not attempt to open the inverter casing or perform internal repairs. Refer to qualified service personnel for any internal issues.

TROUBLESHOOTING

This section provides solutions to common issues you might encounter.

Problem	Possible Cause	Solution
Inverter not turning on	No battery power; Loose battery connections; Blown fuse/breaker.	Check battery voltage; Tighten connections; Check/replace fuse.
No AC output	Overload; Overheat; Low battery voltage; Faulty appliance.	Reduce load; Allow unit to cool; Recharge battery; Test appliance on another source.
Solar charging not working	Insufficient sunlight; Incorrect solar panel connection; Faulty solar panel.	Ensure adequate sunlight; Check solar panel polarity and connections; Test solar panel output.
Battery not charging from shore power	No shore power; Loose AC input connection; Charger fault.	Check shore power source; Verify AC input connection; Contact support if issue persists.

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

TECHNICAL SPECIFICATIONS

Parameter	Value
Model	SSI252
Continuous Power Output	2500 W
Input Voltage (DC)	12 V
Output Voltage (AC)	230 V
Output Waveform	Pure Sine Wave
Integrated Battery Charger	20 A
MPPT Solar Charge Controller Max Power	550 W

Parameter	Value
MPPT Solar Charge Controller Max Voltage	70 V
Dimensions (L x W x H)	520 x 220 x 150 mm
Weight	6.5 kg

Mehr Power nötig?

SSI 10



Dauerleistung: 1000 W
Spannung: 12/24 V zu 230 V
Maße: 380 x 220 x 150 mm
Gewicht: 5,8 kg

SSI 15



Dauerleistung: 1500 W
Spannung: 12/24 V zu 230 V
Maße: 450 x 220 x 150 mm
Gewicht: 6,8 kg

SSI 20



Dauerleistung: 2000 W
Spannung: 12/24 V zu 230 V
Maße: 500 x 220 x 150 mm
Gewicht: 7,9 kg

SSI 25



Dauerleistung: 2500 W
Spannung: 12/24 V zu 230 V
Maße: 520 x 220 x 150 mm
Gewicht: 8,5 kg

SSI 30



Dauerleistung: 3000 W
Spannung: 12/24 V zu 230 V
Maße: 500 x 220 x 150 mm
Gewicht: 9,7 kg

ECTIVE

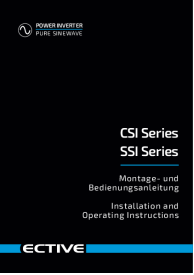

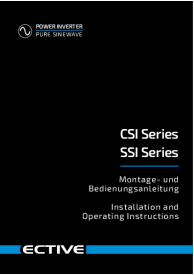
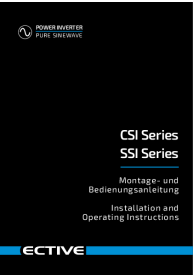

This image provides a comparison of various ECTIVE SSI models (SSI 10, SSI 15, SSI 20, SSI 25, SSI 30), detailing their continuous power output, voltage, dimensions, and weight, allowing users to understand the range of products available.

WARRANTY AND SUPPORT

ECTIVE products are designed for reliability and performance. For specific warranty terms and conditions, please refer to the warranty card included with your product or visit the official ECTIVE website. For technical support, troubleshooting assistance, or spare parts, please contact ECTIVE customer service through their official channels.

Online Resources: For additional information, FAQs, and product updates, visit the [ECTIVE Store on Amazon](#).

Related Documents - SSI252

	<p>Ective CSI & SSI Serien: Installations- und Bedienungsanleitung für reine Sinus-Wechselrichter</p> <p>Umfassende Installations- und Bedienungsanleitung für Ective CSI und SSI Serien reine Sinus-Wechselrichter. Enthält Informationen zu Funktionen, Spezifikationen, Sicherheit und Fehlerbehebung für zuverlässige Stromversorgung.</p>
	<p>Ective CSI and SSI Series Inverter: Installation and User Manual</p> <p>Comprehensive guide for the Ective CSI and SSI series inverters, covering installation, operation, safety, and troubleshooting. Learn about pure sine wave inverters, battery configurations, and technical specifications.</p>
	<p>ECTIVE CSI/SSI Series: Installation and Operating Instructions</p> <p>Comprehensive guide for installing and operating ECTIVE CSI and SSI series inverters. Covers features, safety, technical specifications, and troubleshooting for reliable off-grid power solutions.</p>
	<p>ECTIVE CSI & SSI Serie: Montage- und Bedienungsanleitung für reine Sinus-Wechselrichter</p> <p>Umfassende Anleitung zur Installation und Bedienung der ECTIVE CSI und SSI Serie von reinen Sinus-Wechselrichtern. Enthält wichtige Sicherheitshinweise, technische Daten, Betriebsmodi (ECO, UPS) und Fehlerbehebung für Off-Grid-Anwendungen.</p>
	<p>Manuel d'utilisation et d'installation des onduleurs Ective Série CSI et SSI</p> <p>Ce manuel fournit des instructions détaillées pour le montage, l'utilisation, la sécurité et le dépannage des onduleurs Ective des séries CSI et SSI, offrant une onde sinusoïdale pure.</p>



[ECTIVE 2024/2025 Catalog: Mobile & Self-Sufficient Power Solutions](#)

Explore the ECTIVE 2024/2025 catalog for comprehensive mobile and self-sufficient power solutions, including solar panels, batteries, inverters, and all-in-one systems for campers, boats, and off-grid living. Visit ective.de for more.