

Portable Solar Modules

SunGrid MSP

Operating Instructions

ACTIVE

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► Ready to get ECTIVE!

Quick-Start Guide

1. Familiarize yourself with the Safety Instructions on page 2.
2. Connect and operate your ECTIVE SunGrid solar panel according to the instructions on page 4.
3. Use efficient, free and sustainable solar power to supply your electrical devices with energy!

Welcome!

Hi, nice to meet you! Ready to get ECTIVE?

Thank you for choosing a solar module from ECTIVE's SunGrid series!

ECTIVE SunGrid panels are extremely light and powerful solar modules that can be folded up to the size of an A4 sheet of paper. This makes them ideal for festivals, wall camping or as a compact solar module for behind the windscreen.

Please read these instructions carefully before using the solar module. Please also read and follow the operating instructions in the manuals for all devices that you wish to use with this solar module, such as solar charge controllers, inverters with integrated MPPT charge controllers or all-in-one solutions such as the ECTIVE BlackBox or ECTIVE AccuBox.

Scope of Delivery

Solar modules from the ECTIVE SunGrid series are supplied with practical accessories that make them easy and safe to use. Please check that the scope of delivery is complete before installation and commissioning:

- **1 × ECTIVE SunGrid**

Lightweight, foldable solar panel with high efficiency and integrated USB ports.

- **1 × Carrying Bag**

Robust and stylish carrying bag for storing the ECTIVE SunGrid including cables.

- **2 × Connection Cables (XT30 to MC4 / Anderson Small to MC4)**

Thanks to the included cables, you can connect the SunGrid module directly to your ECTIVE BlackBox or ECTIVE AccuBox, or connect it to another suitable device.



Safety Instructions

Read the following safety instructions carefully before installing and using your ECTIVE SunGrid. Also follow the operating instructions for any devices that you use with the ECTIVE SunGrid. This includes solar charge controllers, inverters with integrated MPPT charge controllers or all-in-one solutions such as the ECTIVE BlackBox or ECTIVE AccuBox.

- Do not use the ECTIVE SunGrid if the solar module, cable or a connected device is damaged or does not function properly.
- Do not touch any contacts of the connections and, in the event of damage, do not touch any exposed wires or metallic components.
- The connections of the ECTIVE SunGrid are dustproof to IP65 and protected against light splash water. No water may penetrate a connected charge controller or other connected electrical devices.
- Protect the surface of the solar module from sharp objects, direct heat sources, acids and other external influences that could damage the surface of the solar module.
- Ensure that all cables are connected correctly and securely. Avoid short circuits and ensure that all requirements for cable cross-sections and fuses are met. Read the operating instructions for the connected devices.
- ECTIVE SunGrid solar modules do not contain any components that can be serviced by the user. Do not disassemble the solar module or attempt to repair it. In the event of problems or defects, please contact our customer service.

Product Overview & Technical Specifications



Useful Connections

The ECTIVE SunGrid transmits the solar power generated to a solar charge controller via the XT30 connection. This can either be a stand-alone device, such as the ECTIVE SC 20 Silent, or a charge controller that is installed in another device, such as an ECTIVE SSI inverter or an ECTIVE BlackBox or AccuBox. Two USB ports (USB-A and USB-C) supply small consumers such as smartphones or cameras directly with power.

	MSP 72 SunGrid	MSP 162 SunGrid	MSP 216 SunGrid
Rated power (Wp)	72 W	162 W	216 W
Rated voltage UMPP (V)	20 V	20 V	26,7 V
Rated current IMPP (A)	3,6 A	8,1 A	8,1 A
Power tolerance		+/- 3 %	
Open-circuit voltage UoC		24,40 V	
Short-circuit current Isc	3,82 A	8,59 A	8,60 A
Dimensions	934 × 578 × 5 mm	1185 × 866 × 3 mm	1744 × 866 × 3 mm
Dimensions (folded)	288 × 200 × 50 mm	295 × 200 × 90 mm	295 × 200 × 100 mm
Weight	2,4 kg	4,3 kg	5,7 kg
Number of cells	72	108	144
Cell efficiency		23 %	
Power/temperature coefficient		- 0,36 % / °C	
Voltage/temperature coefficient		- 0,28 % / °C	
Current/temperature coefficient		- 0,06 % / °C	
Operating temperature range		- 40 to + 85 °C	
Connector protection		Protection class IP65	
Connections		XT30 + Kabel XT30 to MC4	



Easy Set-Up

The useful eyelets in the corners of the ECTIVE SunGrid allow the solar module to be attached flexibly and easily. For instance, you can attach suction cups which allow you to quickly mount your solar panel to the side of your vehicle. This means that the ECTIVE SunGrid can be positioned perfectly at any time, depending on the situation and the position of the sun.

Operating Instructions

Observe the following instructions when using your ECTIVE SunGrid solar module. Also read and follow the ‘Safety instructions’ section and the operating instructions for all devices connected to the solar module.

- Unfold the solar module and orientate it towards the sun. Hang the module in a place exposed to sunlight that is free of branches and other obstacles. This will maximise the power output of the module. The perfect angle at which the solar module should be orientated depends not only on the time of day but also on the geographical location and the time of year.
- Check the surface of the solar module, the cables and the connections on the solar module and charge controller for any damage. If these are all undamaged, connect the solar module to the corresponding inputs of a compatible solar charge controller. Connect the battery that you want to charge to the corresponding outputs of the charge controller.
- Some inverters (e.g. the ECTIVE SSI series) and all-in-one solutions for self-sufficient power supply (e.g. ECTIVE BlackBox and ECTIVE AccuBox) have an integrated MPPT charge controller. Of course, the ECTIVE SunGrid solar module can also be connected to these combined devices.
- Ensure that all connections are secure and avoid short circuits.
- After use, disconnect the ECTIVE SunGrid solar module from the solar charge controller, fold it up and store it safely in the supplied bag.

With a suitable charge controller, this solar module can be used to charge or power the following battery technologies:

- Lead-acid batteries (wet)
- Gel batteries
- AGM batteries
- Lithium batteries

ECTIVE SunGrid solar modules have two built-in USB ports (USB-A and USB-C), which you can use to power or charge small devices such as smartphones, tablets, cameras, navigation devices, etc.

Cleaning and Maintenance

Remove dust and dirt from the surface of the solar module with a soft brush and then wipe it clean with a damp cloth. Bird droppings should be removed as quickly as possible to avoid a negative effect on the performance of the solar module.

Troubleshooting

If the connected battery does not charge even though the solar module is facing directly towards the sun, there may be various reasons for this:

- **Problem with the connections:** Make sure that the solar module is correctly connected to the solar charge controller and that this in turn is correctly connected to the battery. Make sure that no connections are loose or have come loose.
- **Problem with the charge controller:** If there is no charge, the solar charge controller may be defective or damaged. Make sure that the charge controller is working as expected and have it repaired or replaced if necessary.
- **Incompatibility between charge controller and battery:** Ensure that the charge controller used supports the battery technology used. Read the operating instructions for the charge controller.
- **Problem with the battery:** Batteries can become deeply discharged if used or stored improperly. Find out whether the battery used can be restored or replaced.
- **Problem with the solar module:** If all other sources of error have been ruled out, the solar module is defective. In this case, please contact our customer service.

Any questions?

If you encounter problems that you cannot solve yourself, please contact our customer service. We are happy to provide you with qualified help!

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The SunGrid in the ECTIVE Eco System

ECTIVE MPPT Solar Charge Controller

Solar charge controllers are the link between the solar module and the battery, enabling a self-sufficient power supply in which the batteries are charged with solar power. The technically advanced MPPT charge controllers from ECTIVE adjust their input voltage so that the solar system always delivers maximum power.

Supplement your mobile power supply with a charge controller from the ECTIVE SC, ECTIVE DSC or ECTIVE SC PRO series to utilise solar power and be truly independent:



ECTIVE SC Silent



ECTIVE DSC



ECTIVE SC PRO

Our ECTIVE SC 20 Silent solar charge controller is particularly suitable for use with mobile solar modules such as the ECTIVE SunGrid. This high-quality, fully automatic charge controller uses MPPT technology to maximise charging efficiency: charging times and energy losses due to inefficiencies are thus reduced. The ECTIVE MPPT SC 20 Silent is also quiet, lightweight, compact and extremely user-friendly. It is maintenance-free and offers various protective functions to protect your batteries from damage.

ECTIVE Batteries

In combination with ECTIVE PRO inverters, modern ECTIVE LiFePO4 batteries are ideal for a reliable and efficient stand-alone power supply. The **LC LT**, **LC Slim LT**, **LC Under Seat LT** and **LC Marine LT** series offer high maximum capacities, continuous discharge currents, useful Bluetooth function and numerous other features. Of course, you can also use batteries with other technologies (e.g. AGM or gel).

ECTIVE All-in-One Solutions for Fully Self-Sufficient Power Supply

The ECTIVE portable solar modules in combination with our all-in-one devices from the ECTIVE BlackBox and ECTIVE AccuBox series form the dream team for absolute mobility and self-sufficiency.

These can be thought of as a giant power bank with many more connections and application options. While the BlackBox is light and compact and can be carried anywhere, the AccuBox offers more power and is ideal for outdoor power supply. In general, the larger the battery capacity, the longer the self-sufficient power supply works and the heavier the all-in-one device is. The special advantage: Both the BlackBox and AccuBox have an integrated MPPT solar charge controller. This allows the ECTIVE SunGrid solar module to be connected directly to the BlackBox or AccuBox.

These in turn supply a wide variety of consumers with power: thanks to their integrated inverter, the all-in-one devices also supply power for demanding consumers such as televisions or refrigerators via the 230 V connections, just like the socket at home. USB ports and 12 V connections are available for smaller devices. In emergencies, an all-in-one device is even suitable as a jump-start for broken-down vehicles.



ECTIVE BlackBox

3 models
512 to 1497 Wh



ECTIVE AccuBox

3 models
1536 to 3840 Wh

Service and Complaints

If you have any questions about your device after purchase or during operation, we are happy to help you. To speed up the process, please provide information by email in advance, whenever possible with an explanation of the issue and photos. To contact us and for product returns, please use the following service address:

batterium GmbH, Robert-Bosch-Straße 1,
71691 Freiberg am Neckar, Germany
T: +49 7141 / 560 90 40
info@ective.de
ective.de

Tip: When contacting us directly, please have your customer or invoice number and the article number ready.

In case you would like to return a product to us, please follow these guideline to ensure a quick and secure handling of the issue

- If possible use the original packaging as shipping carton.
- If you no longer have the original packaging, please use suitable (UN-certified) packaging to ensure adequate protection during transport.
- If the goods are not shipped in the original packaging or a UN-certified packaging, the goods are considered damaged and will therefore need to be billed when the item is returned.

Please enclose the following with the return shipment:

- Copy of the invoice
- (Service Form)
- Reason for return
- An exact and detailed error description

Disposal

- Please dispose of all packaging material correctly or recycle it.
- In Germany, the Electrical and Electronic Equipment Act [ElektroG] regulates the placing on the market, disposal and recycling of electrical and electronic appliances.
- When decommissioning the appliance, please contact the nearest recycling centre or your point of sale and ask for information about the current disposal regulations.



Stay in Touch!

You would like to learn more about ECTIVE and our products? Visit our [Website!](#)

You want to stay up to date or are looking for inspiration for your next camper conversion? Follow us on [Instagram!](#)

Still have a specific question? Our [Customer Service Team](#) will be happy to take care of you. There you will receive fast, qualified help with concerns about our products!

Our goal is to make your life easier with our ECTIVE products. No matter if you are on the road with your camper, your boat or just your backpack. No matter if it's a trip, a festival or a professional photo shoot: You should be able to fully concentrate on your adventure or project. A reliable power supply that runs efficiently and safely in the background strengthens your back and you can take care of the essentials: Experiencing unforgettable moments and creating priceless memories.



batterium GmbH

Robert-Bosch-Straße 1 | 71691 Freiberg am Neckar
T: +49 7141 1410870 | info@ective.de | ective.de

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