

SC-122420JUD : 12V/24V, 20A Solar Charge Controller for LiFePO4 Batteries



Price: CAD \$69.99

SKU: BBSC122420JUD

Product Categories: [Charge Controllers](#), [PWM : 20A-29A](#), [Shop](#)

Product Tags: [20a](#), [20a controller](#), [bioenno sc-122420jud](#), [bioenno sc-122420jud canada](#), [canada](#), [lithium solar controller](#), [pwm](#), [pwm solar controller](#), [sc-122420jud](#), [sc-122420jud canada](#)

Product Page:

<https://www.modernoutpost.com/product/sc-122420jud-12v-24v-20a-solar-charge-controller-for-lifepo4-batteries/>

Product Summary

The SC-122420JUD is a solar charge controller configured specifically for LiFePO4 Batteries. This versatile PWM controller is a cost-effective way to protect your batteries by conditioning the output of small solar panel arrays up to 280W (@12V) or 560W (@24V). The handy integrated LCD display lets you know the charging

status at a glance.

Product Description

The SC-122420JUD is a solar charge controller configured specifically for LiFePO4 Batteries. This versatile PWM controller is a cost-effective way to protect your batteries by conditioning the output of small solar panel arrays up to 280W (@12V) or 560W (@24V). The handy integrated LCD display lets you know the charging status at a glance.

Although designed to charge LiFePO4 (Lithium Iron Phosphate) batteries, it can be easily adjusted to handle AGM/SLA batteries too. The SC-122420JUD controller accepts solar modules up to 50V (don't forget to temperature compensate!). Bioenno's proprietary CC/CV (Constant Current/Constant Voltage) circuitry provides a regulated voltage output for charging 12V or 24V LiFePO4 (and AGM/SLA batteries). The solar controller also provides a regulated 12V or 24V output for electrical loads (depending on whether a 12V or 24V battery is used).

Please note that for any solar setup in which you are using a panel in conjunction with a battery and/or a load a solar charge controller is absolutely necessary. DO NOT plug a panel directly into your battery or your load!

This controller does not boost voltage from the solar panel, but instead will regulate a high panel voltage from 50V downwards. DC Barrel Plugs included.

[SC-122420JUD User Manual \[PDF\]](#)

SC-122420JUD Specifications

System Voltage: 12V or 24V (automatic detection)

Allowable Range for Input Voltage (from solar panels): 12V to 50V (when using 12V or 24V LiFePO4 Batteries / AGM and SLA batteries)

Output Voltage to LiFePO4 Batteries (and AGM/SLA batteries): 12V or 24V

Output Voltage to Loads: 12V or 24V (depending on battery configuration)

Rated Charge Current (Current Delivered to Battery): Up to **20A**

Rated Load Current: Up to **20A**

Batteries Compatible w/ Controller: Lithium Iron Phosphate (LiFePO4)

Operating Temperature Range of the Controller: -31 F to 131 F (-30 C to 50 C)

No Load Loss: <13 mA

USB Port: 5VDC/1A

Charging Mode: CC/CV (constant current / constant voltage)

Dimensions: 6.5 in. x 3.46 in. x 1.5 in.(166 mm x 88 mm x 38 mm)

Weight: 0.59 lbs. (0.27 kg)

Warranty : 1 year

Compatible With 12V Lithium Iron Phosphate Batteries

Nominal Voltage: 12.8V

Charging Voltage: 14.4V

Float Voltage: 13.8V

Low Voltage Disconnect (LVD): 10.4V

Low Voltage Recovery (LVR): 11.16V

High Voltage Disconnect (HVD): 15.5V

Automated Charge Settings -- the controller detects the battery to charge:

"b00: Default for LiFePO4"

"b01: For AGM/SLA batteries"

Compatible With 24V Lithium Iron Phosphate Batteries

Nominal Voltage: 25.6V

Float Voltage: 28.8V

Low Voltage Disconnect (LVD): 20.8V

Low Voltage Recovery (LVR): 23.2V

High Voltage Disconnect (HVD): 31.0V

"b00: Default for LiFePO4"

"b01: For AGM/SLA batteries"

Use With Sealed Lead-Acid Batteries Too

To Charge AGM/SLA Batteries - Override Procedure

To charge AGM batteries, you have to setup an override in the controller as follows:

The solar controller has an override feature to charge LiFePO4, SLA and AGM

batteries. Attach the battery first to the controller, then see below:

- 1) The 1st screen is the battery voltage also known as the "home" screen.
 - 2) Push the left red button. The second screen is the float voltage of the solar panel to the battery (13.8VDC).
 - 3) The 3rd screen is the charge voltage of the battery (14.4VDC).
 - 4) The 4th screen is the regulated voltage to the load (12.6VDC)
 - 5) Screen 5 is the cutoff voltage (10.8VDC)
 - 6) Screen 6 is a timer screen that is not implemented
 - 7) Screen 7 is the battery type. By default "b00" is for Lithium Iron Phosphate batteries. To change SLA/AGM batteries, hold the left button for 6 seconds, and the "b00" display will start flashing, then push the right button to change to "b01".
- Screen 2, 3, 4, 5, 6 are hard-coded (hard-programmed) -- there's nothing that you would change on those screens.

Product Attributes

- Dimensions: 1 × 1 × 1 cm
- Weight: 1 kg