

DATA SHEET

SBC100W

**100 Watt Solar Battery Charger for
Li-Ion and Ni-NH / Ni-Cad Batteries**

Highest quality solar powered battery charger



Overview

Sustainable electrical sources like solar photovoltaic arrays are becoming increasingly important as alternatives to fossil fuels, but it is not always easy to apply. Successful application of sustainable energy sources therefore depends on strict attention to efficiency in both power conversion and energy storage.

Ordinary battery chargers, even efficient ones, do an imperfect job of squeezing the last milli-watt from sustainable sources over realistic combinations of ambient and battery conditions.

The SBC100W addresses this problem by continuously optimizing the interface between the solar array and battery using "Maximum Power Point Tracking" (MPPT) techniques and switch mode technology. This makes the SBC100W very small in size, lightweight and reliable. The SBC100W uses internal processor for more flexibility in charger feature design and therefore have many advance features, which are not found in conventional chargers.

Features

- Very small size and light weight
- Wide range inputs from DC sources or from solar photovoltaic arrays
- Low voltage start (can charge deeply discharged battery)
- Voltage and current limit
- Short circuit protections
- Can charge up to four batteries simultaneously
- Automatic accommodation for illumination intensity
- Flexible charging algorithm, using internal programmable microcontroller

General Specification

Type of batteries to be charged:

Ni-Cd / Ni-MH	Simultaneously two MIL/TNC-2188 or equivalent
Li-Ion	Simultaneously two NI2040 or equivalent at the same time

Power source:

From solar photovoltaic arrays	Simultaneously two UNI-PAC-30 or equivalent
From external DC power source	10VDC-30VDC
Charge power	100Watt max

Charging mode for the Ni-Cd batteries:

Constant current mode	0.1Amp, 0.5Amp, 1Amp
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Charging mode for the Li-Ion batteries:

Constant current mode	0.1Amp, 0.8Amp, 1.6Amp, 2.5Amp
Constant voltage mode	12.6V

Miscellaneous:

Interface to the Li-Ion batteries	Via SMB Interface
System Controlled by	Programmable Microcontroller with internal FLASH memory
Charger efficiency	>85%
Circuit protection	According to MIL STD 1275A Over voltage protection for the inputs Over current protection for the outputs EMI/RFI filters Over temperature protection
Operating Temperature Range	0 – 50°C
Dimensions (L x W x H)	320 x270 x100mm

* Specifications are subject to change



Applications

Mobile army-units
TV's
Communications (field radio, mobile phones)
Heating pads
Professional photographers
Indoor/Outdoor lighting
Portable audio devices
Portable computers
Emergency power

About SeBo Technologies

SeBo Technologies design, manufacture and integrate innovative, practical and easy to implement solutions. These solutions provide our customers a fast track to either incorporate technology within their current products, or to simply design a new product range.

SeBo Technologies can customize everything from the solar panel to the housing of your custom requested solar panel. We also specialize in prototyping in addition to full production runs for OEM manufactures and small businesses.

By leveraging our expertise we are able to offer products and services to our customers to enable cost effective, rapid time to market solutions.

More Information...

For more information on our products, please use the following contact:

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