

# Reliability & efficiency down to a science.

Marine | RV | Industrial | Military | Street Lighting | Off-Grid



Get your money's worth with Genasun. A true problem-solver, the unique GVB charge controller with MPPT allows a lower-voltage solar panel to charge higher-voltage batteries. Want to charge a 24V battery with a 48-cell solar panel? No problem. A 48V battery from a 12V panel? We've got you covered. With 99% peak efficiency, they are the industry's most efficient voltage-boosting controllers. True MPPT delivers consistent performance, unlike the "Nominal MPPT" of competitors. The advanced electronics inside the controller are encased in a proprietary potting compound making them ideal for golf-cart, marine, and vehicle applications.

- Waterproof •
- 99% peak efficiency •
- In-line fuse •
- Ultra-fast true MPP Tracking •
- Excellent low-light performance •
- Wire leads for easy installation •

## GVB-8-WP (BOOST)

## 8A MPPT @ 12-48V

Take advantage of Genasun's advanced MPPT technology and enjoy more reliable power from smaller panels.



**+10%**  
additional power  
in the summer.  
No panel is too  
hot to handle.



**+30%**  
more power on  
those shorter,  
colder winter days.



**+50%**  
increase in  
energy harvest  
from partially  
shaded panels.

Typical power gains from Genasun MPPT controllers vs the best PWM controllers available.

Certifications:   

# Specifications:

## GVB-8-WP, All Models

Rated Panel (Input) Current:	8A*
Minimum Panel Voltage for Charging:	5V
Minimum Battery Voltage for Operation:	9.5V
Maximum Input Panel:	60V
Recommended Max Panel Voc at STC:	50V
Input Voltage Range:	0-60V
Maximum Input Short Circuit Current**:	8A*
Maximum Input Current***:	15A
Tracking Efficiency:	99+% typical
MPPT Tracking Speed:	15Hz
Operating Temperature:	-40°C – 85°C
Maximum Full Power Ambient:	70°C
Environmental Protection:	IP68, Waterproof
Connection:	Flying Leads, 16 AWG tinned wire, pre-stripped
Weight:	10.3oz (290g)
Dimensions:	5.5x3.2x2.2", (14x8.1x5.5cm)
Warranty:	5 years

### GVB-8-Pb-12V-WP

### GVB-8-Pb-24V-WP

### GVB-8-Pb-36V-WP

### GVB-8-Pb-48V-WP

Charge Profile:	Multi-Stage with Temperature Compensation			
Nominal Battery Voltage:	12V	24V	36V	48V
Maximum Recommended Panel Vmp:	13V	26V	41V	43V
Maximum Recommended Panel Power (8A Panel w/~155mm cells):	105W	210W	325W	350W
Bulk Voltage:	14.4V	28.8V	43.2V	57.6V
Absorption Voltage:	14.2V	28.4V	42.6V	56.8V
Absorption Time:	2 Hours			
Float Voltage (Pb models) or CV Voltage (Li models):	13.8V	27.6V	41.4V	55.2V
Battery Temperature Compensation:	-28mV/°C	-56mV/°C	-84mV/°C	-112mV/°C
Electrical Efficiency:	95% - 97% typical	96% - 98% typical	96% - 98% typical	96% - 99% typical
Night Consumption:	7mA	6mA	6mA	5mA

### GVB-8-Li-14.2V-WP

### GVB-8-Li-28.4V-WP

### GVB-8-Li-41.7V-WP

### GVB-8-Li-54.2V-WP

### GVB-8-Li-56.8V-WP

### GVB-8-Li-58.4V-WP

Battery type:	4S LiFePO <sub>4</sub>	8S LiFePO <sub>4</sub>	10S Li-ion	13S Li-ion	16S LiFePO <sub>4</sub>	14S Li-ion
Charge Profile:	CC/CV					
CV Voltage:	14.2V	28.4V	41.7V	54.2V	56.8V	58.4V
Battery Temperature Compensation:	Disabled					
Maximum Recommended Panel Vmp:	13V	26V	39V	43V	43V	43V
Maximum Recommended Panel Power:	105W	210W	325W	350W	350W	350W
Electrical Efficiency:	95% - 97% typical	96% - 98% typical	96% - 98% typical	96% - 99% typical	96% - 99% typical	96%-99%
Night Consumption:	7mA	6mA	6mA	5mA	5mA	5mA

\*Panel ratings have increased since we designed the GVB. Although we don't believe in changing specifications without a corresponding engineering change, based on both our customers' experiences over the years as well as the headroom we designed into the GVB, we feel comfortable recommending the GVB for panels with Imp up to 9A.

\*\*Panel Isc. Maximum input power and maximum input voltage requirements must also be respected.

\*\*\*Maximum current that the controller could draw from an unlimited source. This specification is not intended for determining PV input.

Copyright © 2019 SunForge LLC. All rights reserved. Changes are periodically made to the information herein which will be incorporated in revised editions of this publication. SunForge may make changes or improvements to the product(s) described in this publication at any time and without notice.