GENASUN

Reliability & efficiency down to a science.

Marine | Industrial | Military | Golf-Cart | eBike

Get your money's worth with Genasun. A true problem-solver, the unique GVB-8 Boost waterproof charge controller with MPPT allows a lower-voltage solar panel to charge higher-voltage batteries. Want to charge a 24 V battery with a 48-cell (20 V nominal) solar panel? No problem. A 48 V battery from a 36-cell (12 V nominal) 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-carts, marine, and ebikes. Available for lead-acid and lithium battery.

- 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) | 8 A MPPT @ 12-48 V

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.

CE FC RoHS COMPLIANT

Specifications:

GVB-8-WP, All Models

Rated Panel (Input) Current:[1]	8 A
Minimum Panel Voltage for Charging:	5 V
Minimum Battery Voltage for Operation:	9.5 V
Trickle Charge to Recover Dead (0V) Battery:	Yes
Maximum Input Panel:	60 V
Recommended Max Panel Voc at STC:	50 V
Input Voltage Range:	0-60 V
Maximum Input Short Circuit Current:[1,2]	8 A
Maximum Input Current:[3]	15 A
Tracking Efficiency:	99+% typical
MPPT Tracking Speed:	15 Hz
Operating Temperature:	-40 °C – 85 °C
Maximum Full Power Ambient:[4]	50 °C
Enviromental Protection:	IP68, Waterproof
Connection:[5]	Flying Leads, 12 AWG tinned wire, pre-stripped
Weight:	10.3 oz (290 g)
Dimensions:	5.5" x 3.2" x 2.2", (14 cm x 8.1 cm x 5.5 cm)
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:	12 V	24 V	36 V	48 V
Maximum Recommended Panel Vmp:	13 V	26 V	41 V	43 V
Maximum Recommended Panel Power (8A Panel w/~155mm cells):	105 W	210 W	325 W	350 W
Bulk Voltage:	14.4 V	28.8 V	43.2 V	57.6 V
Absorption Voltage:	14.2 V	28.4 V	42.6 V	56.8 V
Absorption Time:	2 Hours			
Float Voltage:[6]	13.3 V	26.6 V	39.9 V	53.2 V
Re-Absorb (Re-Bulk):[7]	12.5 V	25 V	37.5 V	50 V
Battery Temperature Compensation:	-28 mV/°C	-56 mV/°C	-84 mV/°C	-112 mV/°C
Electrical Efficiency:	95% - 97% typical	96% - 98% typical	96% - 98% typical	96% - 99% typical
Night Consumption:	7 mA	6 mA	6 mA	5 mA

MODEL (GVB-8-**)	Li-14.2V-WP	Li-28.4V-WP	Li-41.7V-WP	Li-42.6V-WP	Li-50.0V-WP	Li-54.2V-WP	Li-56.8V-WP	Li-58.4V-WP
Battery type:	4S LiFePO$_4$	8S LiFePO$_4$	10S Li-ion	12S LiFePO$_4$	12S Li-ion	13S Li-ion	16S LiFePO$_4$	14S Li-ion
Maximum Recommended Panel Power:	105 W	210 W	325 W	325 W	350 W	350 W	350 W	350 W
Maximum Recommended Panel Vmp:	13 V	26 V	39 V	39 V	43 V	43 V	43 V	43 V
Charge Profile:	CC/CV							
CV Voltage:	14.2 V	28.4 V	41.7 V	42.6 V	50.0 V	54.2 V	56.8 V	58.4 V
Battery Temperature Compensation:	Disabled							
Electrical Efficiency:	95% - 97% typical	96% - 98% typical	96% - 98% typical	96% - 98% typical	96% - 99% typical	96% - 99% typical	96% - 99% typical	96%-99%
Night Consumption:	7 mA	6 mA	6 mA	6 mA	5 mA	5 mA	5 mA	5 mA

(1) Panel ratings have increased since we designed the GVB-8. 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-8, we feel comfortable recommending the GVB-8 for panels with Imp up to 9 A.
(2) Panel Isc. Max input power and maximum input voltage requirements must also be respected.
(3) Max current that the controller could draw from an unlimited source. This specification is not intended for determining PV input.
(4) Max ambient temperature for full operating power.
(5)(6) Starting from S/N 188100, flying leads are 12 AWG instead of 16 AWG and the Float Voltage was reduced on Pb models. For the previous version, please refer to datasheet revision 1.0 | 2021
(7) If the battery voltage drops below this point, the controller will attempt to run an absorption cycle. Otherwise, it will charge to the float voltage.