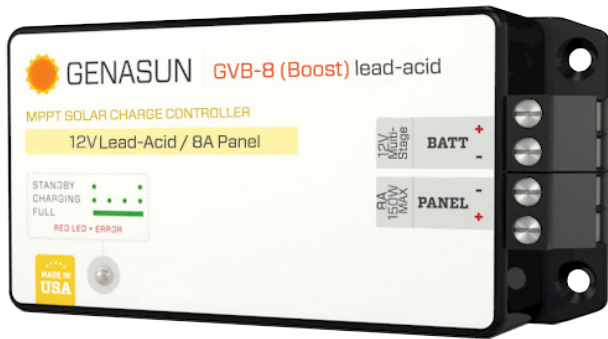




Reliability & efficiency down to a science.

Marine | RV | Portable | Military | Micro-Mobility | Off-Grid



Get your money's worth with Genasun. A true problem-solver, the unique GVB-8 Boost charge controller with MPPT allows a lower-voltage solar panel to charge higher-voltage batteries. Want to charge a 24 V battery with a 36-cell (12V-nominal) solar panel? No problem. A 48 V battery from a 60-cell (20V-nominal) panel? We've got you covered. With 99% peak efficiency and the ability to charge with as little as 5 V of input, they are the industry's most efficient voltage-boosting controllers.

GVB-8

8 A MPPT @ 12-48 V

Built-in fuse

99% peak efficiency

Ultra-fast true MPP Tracking

Excellent low-light performance

Compact for easy installation

Available for lithium batteries

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.



GENASUN GVB-8 BOOST DATA SHEET, REVISION 1.0 | 2021

Specifications:

GVB-8, 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	70 °C
Environmental Protection:	IP40, Nickel-Plated Brass & Stainless Hardware
Connection:	4-position terminal block for 10-30 AWG wire
Certifications:	cETLus, CE, FCC, RoHS
Weight:	6.5 oz., 185 g
Dimensions:	5.4" x 2.4" x 1.3" (13.7 cm x 6.2 cm x 3.3 cm)
Warranty:	5 years

GVB-8-Pb-12V

GVB-8-Pb-24V

GVB-8-Pb-36V

GVB-8-Pb-48V

GVB-8-Pb-CV

Charge Profile:	Multi-Stage with Temperature Compensation					
Nominal Battery Voltage:	12 V	24 V	36 V	48 V	(See specs for closest -Pb equivalent.)	
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:	13.8 V	27.6 V	41.4 V	55.2 V		
Re-Absorb (Re-Bulk): ⁵	12.5 V	25 V	37.5 V	50 V		
Battery Temperature Compensation (referred to 25 °C):	-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		

GVB-8-Li-14.2V

GVB-8-Li-25.0V

GVB-8-Li-28.4V

GVB-8-Li-41.7V

GVB-8-Li-56.8V

GVB-8-Li-CV

Battery type:	4S LiFePO ₄	6S Li-ion	8S LiFePO ₄	10S Li-ion	16S LiFePO ₄	Lithium
Maximum Recommended Panel Power:	105 W	210 W	210 W	325 W	350 W	(See specs for closest CC/CV voltage)
Maximum Recommended Panel Vmp:	13 V	20 V	26 V	39 V	43 V	
Charge Profile:	CC/CV					CC/CV or Multi-Stage
CV Voltage:	14.2 V	25.0 V	28.4 V	41.7 V	56.8 V	Custom
Battery Temperature Compensation:	Disabled					
Electrical Efficiency:	95% - 97% typical	96% - 98% typical	96% - 98% typical	96% - 98% typical	96% - 99% typical	(See specs for closest CC/CV voltage)
Night Consumption:	7 mA	6 mA	6 mA	6 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) 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.