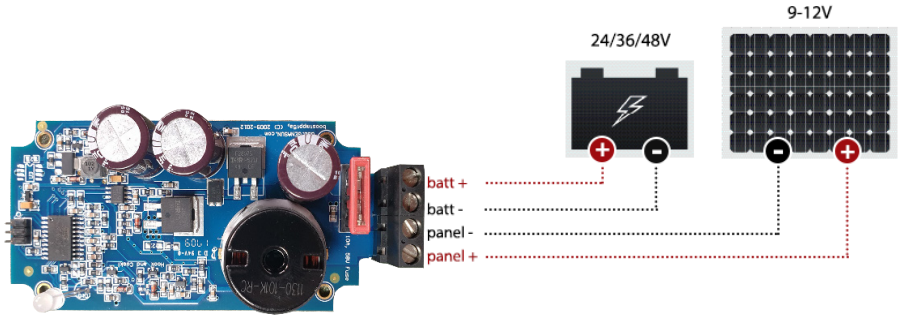
GENASUN

Reliability & efficiency down to a science.

EV'S | Military | Portable | Embedded | Off-Grid

A ready-to-go MPPT BOOST solar charge controller for OEM applications. The GVB-8-PCB is the first MPPT BOOST controller available as an easy-to-install PCB. It is light, compact, and packs advanced MPPT tracking technology. Boost your solar panel voltage up to a higher voltage battery bank. This series, as example, can take a standard 9-12 V panel and boost the voltage to charge a 24 V, 36 V, or 48 V battery pack. Many combinations are possible—in fact, the GVB-8-PCB will boost almost any panel voltage (Vmp) that's below your battery voltage. This makes finding a good panel easy. The GVB-8-PCB is available for lead-acid batteries (12 V, 24 V, 36 V, 48 V), $LiFePO_4$ (4S, 8S, 16S), Li-ion (10S), and can be programmed for any battery with a CC/CV or Multi-Stage charge profile. Available in bulk packaging (multiple of 50 units) for OEM applications.



GVB-8-PCB | 8 A @ 12 V-48 V MPPT

- 99% peak efficiency
- Ultra-fast MPPT BOOST technology
- Built-in fuse 10 A
- Excellent low-light performance
- PCB board for easy installation
- Great for lithium batteries

Take advantage MPPT Boost 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.

MADE IN USA · Intertek · CE · FC · RoHS COMPLIANT

Specifications:

	GVB-8-PCB, All Models
Rated Panel (Input) Current[1]:	8 A
Minimum Panel Voltage for Charging:	5 V
Minimum Battery Voltage for Operation:	9.5 V
Maximum Input Panel:	60 V
Trickle Charge to Recover Dead (0 V) Battery:	Yes
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
MPPT Tracking Speed:	15 Hz
Operating Temperature:	-40°C – 85°C
Maximum Full Power Ambient[4]:	70°C
Enviromental Protection:	Conformal Coating, Nickel-Plated Brass & Stainless Hardware
Connection:	4-position terminal block for 10-30 AWG wire
Certifications:	cETLus Safety, Recognized Component cETLus HazLoc (C1D2), CE, FCC, RoHS
Weight:	3.8 oz. (108 g)
Dimensions:	4.75 x 2.2 x 1.06" (12 x 5.5 x 2.7 cm)

	GVB-8-Pb-12V-PCB	GVB-8-Pb-24V-PCB	GVB-8-Pb-36V-PCB	GVB-8-Pb-48V-PCB	GVB-8-Pb-CV-PCB
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	
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	

	GVB-8-Li-14.2V-PCB	GVB-8-Li-28.4V-PCB	GVB-8-Li-41.7V-PCB	GVB-8-Li-56.8V-PCB	GVB-8-Li-CV-PCB
Battery type:	4S LiFePO4	8S LiFePO4	10S Li-ion	16S LiFePO4	Lithium
Charge Profile:	CC/CV				CC/CV or Multi-Stage
CV Voltage:	14.2 V	28.4 V	41.7 V	56.8 V	Custom
Battery Temperature Compensation:	Disabled				
Maximum Recommended Panel Vmp:	13 V	26 V	39 V	43 V	(See specs for closest CC/CV voltage)
Maximum Recommended Panel Power:	105 W	210 W	325 W	350 W	
Electrical Efficiency:	95% - 97% typical	96% - 98% typical	96% - 98% typical	96% - 99% typical	
Night Consumption:	7 mA	6 mA	6 mA	5 mA	

(1) 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 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 current.