

## GV-5-PB-12V : 5A MPPT Solar Charge Controller by Genasun



Price: CAD \$129.99

**SKU:** GV-5-PB-12V

**Product Categories:** [MPPT : 4A-9A](#), [Charge Controllers](#), [Shop](#)

**Product Tags:** [5a solar charge controller](#), [65W](#), [canada](#), [genasun](#), [genasun gv-5](#), [genasun gv-5 pro](#), [genasun gv-5-pb-12v canada](#), [GV-5-PB-12V](#), [gv5](#), [gv5-pb-12v canada](#), [lithium](#), [MPPT](#), [solar charge controller](#)

**Product Page:**

<https://www.modernoutpost.com/product/gv-5-pb-12v-5a-mppt-solar-charge-controller-by-genasun/>

### Product Summary

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**GV-5-PB-12V 65W 5A 12V Features...** - 99.85% Peak Efficiency -

Electrolytic-Free, Ceramic Capacitors - Doesn't wear out from heat -

High-Speed MPPT - IP40 - Advanced electronic protections - 10 Year Warranty -

Compatible with lithium and lead-acid batteries

### Surviving the Storm with Low Power Burn

Every controller uses power. While a typical PWM controller burns 9mA, the Genasun GV-5-PB-12V burns a scant 0.125mA. That slow burn is perfect for waiting out a snow-covered panel, or a few bad weeks of clouds.

### Partial Shade - In-City Applications

Genasun controllers shine in partial shade. The 50% power increase from Genasun's advanced MPPT is often enough to prevent system downtime from partial shade. From street signs and tree branches, to coffee cups and stickers placed on panels by pedestrians, Genasun MPPT keeps partially shaded solar panels generating more power than any other controller.

### Complete Power Management

The GV-5 does it all. Plug in the solar panel, connect the battery, and connect the load. The GV-5-PB-12V will automatically maximize the solar power collected. The advanced battery charging algorithm will maximize the lifetime and capacity of your battery system. The load output will provide smooth, filtered power without the AC chatter found in lesser controllers. This little black box does it all, efficiently and consistently.

### Steady Power Source

Life is unpredictable. PWM controllers amplify that unpredictability. A small amount of shade can drop PWM power output to 2/3's of what a Genasun MPPT controller

can draw from the same panel. By constantly adapting to changing light conditions, Genasun's advanced MPPT controllers provide a steadier source of power, keeping your system running in uncertain weather.

### Radio Silence

Most MPPT solar charge controllers broadcast Radio Frequency noise from the DC/DC conversion circuit. Unfiltered inputs and outputs waste energy and interfere with nearby or attached electronics. Genasun worked to eliminate RF emissions from their line of charge controllers. During third-party testing for FCC compliance, the test engineer asked them, "Is it on?". Mission accomplished.

### No Fans. No Relays

Fans get clogged with dust and dirt. Relays eventually stop switching. Genasun controllers use advanced electrical design that obsoletes these parts. With fewer moving parts to wear out, Genasun controllers outlast the competition.

### Plug and Play, with Advanced Error Protections

We all make mistakes. People plug panels in backwards. Rodents chew through cables and cause short circuits. Stuff happens. But don't worry, we've got you covered. Advanced built-in electronic protections will instantly cut power to a short circuit. The controller will automatically test to see when the short is removed. Once it's clear, normal operation will resume.

### Mission-Critical Reliability

Genasun controllers are deployed to the most remote locations on earth. They endure years at sea, harsh Antarctic winters, freezing conditions in the upper atmosphere on solar-powered airplanes, and in a few off-the-map locations. Made in the USA, each controller is put through complete electrical testing to ensure reliability. If you need mission-critical power, this is your controller.

Get the Ceramic Edge...

Electrolytic-Free with 10 Year Warranty

Genasun's Ceramic controllers set a new benchmark for reliability. Traditional controllers have components filled with fluid electrolytes that boil off over time, causing system failure. Genasun Solid Ceramic controllers have no fluid. They don't wear out in the heat. Backed by an industry-leading 10-year warranty, these controllers take reliability to a new level.

#### High-Speed MPPT: Always on Target

Not all Maximum Power Point Tracking controllers are created equally. Most use a sweep and sleep method that scans the entire voltage range every 30-60 seconds. That's okay for a clear day, but traditional controllers are constantly off target during changing cloud conditions – exactly when power is scarce and is needed the most. Genasun controllers adapt to changing light conditions 20 times every second. They are always on target, capturing every bit of available sunshine. Simply put, other controllers can't keep up.

#### Advanced Lithium Charging Algorithms

Their Lithium charging algorithms draw from nine years of experience building Lithium battery packs for harsh environments. They've worked with every chemistry, and have tailored charge profiles to help you get more capacity and cycle life from your battery pack.

#### Custom Voltages Available

A custom charge profile for lead-acid batteries can be programmed at the factory to match the exact specs of your lead-acid battery. To order a Custom Voltage controller, select the "GV-5-PB-CV" option.

Compact. Efficient. Tough as Nails. Lightweight and durable, the Genasun brand MPPT solar charge controllers are great for mobile, urban, or harsh environmental conditions. From the South Pacific to the Arctic Circle, they power your system through all conditions.

#### **GV-5-PB-12V Specifications...**

Maximum Recommended Panel Power : 65W

Rated Battery (Output) Current : 5A

Nominal Battery Voltage : 12V

Max Input Voltage : 27V

Recom. Max Panel Voc at STC : 22V  
Minimum Battery Voltage for Operation : 7.2V  
Trickle Charge to Recover Dead (OV) Battery: Yes  
Maximum Input Short Circuit Current : 5A  
Continuous Rated Load Current: 5A  
Maximum Input Current\*\* : 9A  
Charge Profile : Multi-Stage with Temperature Compensation  
Absorption Voltage : 14.2V  
Absorption Time : 2 Hours  
Float Voltage : 13.8V  
Charging Output Voltage Range : 11.4/12.5V  
Battery Temperature Compensation : -28mV/°C  
Operating Temperature : -40°C - 85°C  
Maximum Full Power Ambient : 50°C  
Electrical Efficiency : 96%-99.85% typical  
Tracking Efficiency : 99+% typical  
MPPT Tracking Speed : 15Hz  
Operating Consumption : 0.150mA(150uA)  
Night Consumption : 0.125mA (125uA)  
Environmental Protection : IP40 (Nickel-Plated Brass & Stainless Hardware)  
Connection : 6-position terminal block for 12-30AWG wire  
Weight : 2.8 oz., 80g  
Dimensions : 4.3 x 2.2 x 0.9", 11 x 5.6 x 2.5 cm  
Warranty : 10 years  
Downloads...  
[GV-5\\_Manual.pdf](#)] [GV-5\\_Datasheet.pdf](#)] [GV-5\\_System\\_Schematic.pdf](#)]  
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## Product Attributes

- Dimensions: 1 &times; 1 &times; 1 cm

- Weight: .3 kg