

# Reliability & efficiency down to a science.

Parkmeters | Military | Portable | Embedded | Off-Grid

A ready-to-go MPPT solar charge controller for OEM applications. The **GV-5-MOD** is the first MPPT controller available as an easy-to-install PCB with a plug&play pin-header connector. It is light, compact, and packs advanced MPPT tracking technology. Compatible with PV panels up to 65W for charging 12V batteries (Lead or Lithium) up to 5A with 99.85% peak efficiency. It will extract 10-30% more power from a panel than a PWM controller, and delivers more power to your battery in sub-optimal conditions. The load output allows the GV-5-MOD to protect the battery from over discharge (loads up to 5A) and has auto-resetting short-circuit and reverse-polarity protection. The GV-5-MOD has internal LED indicators and comes with a polarized, shrouded connector for error-proof installation. Its ceramic capacitors will never wear out, and it ships with an industry-leading 10 year warranty. Available for LiFePO<sub>4</sub> (3S or 4S), LiCo/LiMn/LiNi (3S or 4S), or custom battery voltages. Packaged in bulk (multiple of 50 units) for OEM applications.





## GV-5-MOD


## 5A @ 12V MPPT 65W

- 99.85% peak efficiency
- Electrolytic-free, ceramic capacitors
- Ultra-fast true MPP Tracking
- Excellent low-light performance
- Plug&Play for easy installation
- Two Sectable Charge Profiles

Take advantage 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.



[www.genasun.com](http://www.genasun.com)

# Specifications:

	GV-5-MOD-Pb		GV-5-MOD-LFP		GV-5-MOD-Li		GV-5-MOD-CV-SEL		GV-5-MOD-CV
Charge Profile: (Selectable with Pin 7)	Default Charge Profile	Charge Profile 2	Default Charge Profile	Charge Profile 2	Default Charge Profile	Charge Profile 2	Default Charge Profile	Charge Profile 2	Default Charge Profile (Not Selectable)
Battery type:	GEL/SLA	AGM/ FLOODED	3S LiFePO4	4S LiFePO4	3S LiCo/Mn/ Ni	4S LiCo/Mn/ Ni	Lead or Lithium	Lead or Lithium	Lead or Lithium
Maximum Recommended Panel Power:	65W	65W	50W	65W	55W	75W	See specs for closest voltage		See specs for closest voltage
Charge Profile:	Multi-Stage		CC-CV		CC-CV		CC-CV or Multi-Stage		CC-CV or Multi-Stage
Absorption Voltage:	14.1V	14.4V	-		-		To Customer Spec.		To Customer Spec.
Absorption Time:	2 hours		-		-		To Customer Spec.		To Customer Spec.
Float Voltage (Pb mod.) or CV Voltage (Li mod.):	13.6V	13.4V	10.7V	14.2V	12.5V	16.7V	To Customer Spec.		To Customer Spec.
Load (LVD) Disconnect/ Reconnect Voltage:	11.4/12.5 V		8.2/9.0V	11.0/12.0V	9.3/10.5V	12.4/14.0V	To Customer Spec.		To Customer Spec.
Battery Temperature Compensation:	-24mV/°C (referred to 25°C)		Disabled				Disabled (Li mod.) Customer Spec (Pb mod.)		Disabled (Li mod.) Customer Spec (Pb mod.)
Rated Battery (Output) Current:	5A								
Max Input Voltage:	27V								
Recommended Max Panel Voc at STC:	22V								
Minimum Battery Voltage for Normal Operation:	7.2V								
Trickle Charge to Recover Dead (0V) Battery:	Yes								
Input Voltage Range:	0-27V								
Maximum Input Short Circuit Current*:	5A								
Continuous Rated Load Current:	5A								
Maximum Input Current**:	9A								
Operating Temperature:	-40°C - 85°C								
Maximum Full Power Ambient:	50°C								
Electrical Efficiency:	94% - 99.85% typical								
Tracking Efficiency:	99+% typical								
MPPT Tracking Speed:	15Hz								
Operating Consumption:	0.150mA (150uA)								
Night Consumption:	0.125mA (125uA)								
Connection:	24-pin, dual-row shrouded polarized male header, 0.100" spacing, gold-plated								
Certifications:	CE, FCC, RoHS								
Weight:	1.0 oz., 28 g								
Dimensions:	3.28 x 1.88 x 0.48 ", 8.32 x 4.78 x 1.22 cm								
Warranty:	10 years								

\*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.

