



# Reliability & efficiency down to a science.

Marine | RV | Industrial | Military | Street Lighting | Off-Grid



**Get your money's worth with Genasun.** This 50 W 4 A 12 V MPPT controller is small, critically efficient, and cost-effective. The GV-4 extracts more power from any given panel than a PWM controller. And though PWMs may offer a lower controller cost, Genasun MPPT controller delivers more power – reducing the cost per watt by 10%-30% and giving you more bang for your buck. Its extremely low self-consumption makes it perfect for waiting out a few bad weeks of clouds.

## GV-4

## 4 A @ 12 V MPPT 50 W

- 99.85% peak efficiency
- No radio frequency noise
- Ultra-fast true MPP Tracking
- Excellent low-light performance
- Compact for easy installation

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.



# Specifications:

## GV-4-Pb-12V

Maximum Recommended Panel Power:	50 W
Rated Battery (Output) Current:	4 A
Nominal Battery Voltage:	12 V
Maximum Input Voltage:	27 V
Recommended Max Panel Voc at STC:	22 V
Minimum Battery Voltage for Operation:	7.2 V
Input Voltage Range:	0-27 V
Maximum Input Short Circuit Current <sup>1</sup> :	4 A
Maximum Input Current <sup>2</sup> :	7 A
Charge Profile:	Multi-Stage with Temperature Compensation
Bulk Voltage	14.4 V
Absorption Voltage:	14.2 V
Absorption Time:	2 Hours
Float Voltage:	13.8 V
Charging Output Voltage Range:	7.2-18 V
Battery Temperature Compensation:	-28 mV/°C (referred to 25°C)
Operating Temperature:	-40°C – 85°C
Maximum Full Power Ambient <sup>1,2</sup> :	45°C
Electrical Efficiency:	96% - 99.85% typical
Tracking Efficiency:	99% typical
MPPT Tracking Speed:	15 Hz
Operating Consumption:	0.125 mA (125 uA)
Night Consumption:	0.09 mA (90 uA)
Environmental Protection:	IP40, Nickel-Plated Brass & Stainless Hardware
Connection:	4-position terminal block for 12-30 AWG wire
Weight:	2.8 oz. (80 g)
Dimensions:	4.3 x 2.2 x 0.9" (11 x 5.6 x 2.5 cm)
Warranty:	5 years
Certifications:	CE, FCC, RoHS

(1) Panel Isc. Maximum input power and maximum input voltage requirements must also be respected.

(2) Maximum current that the controller could draw from an unlimited source.