

ANALYTIC SYSTEMS
Power Conversion Solutions

SOLARMAX
CHARGE CONTROLLER

SMP100

Overvoltage Protection with Shutdown

Three-Stage Charging Profile

Low Noise, EMC Tested

Backfeed Protection

Data Logging Capability

User-Programmable
Voltage Settings

Patented MPPT Algorithm for Maximum Power

Temperature-Compensated Charging

SMP100 MPPT SOLAR CHARGE CONTROLLER

The SMP100 "SolarMax" Charge Controller is designed to supply up to 100 amps of precision charging power to battery banks from 24 to 72 volts from a photovoltaic source. Analytic Systems's patented Maximum Power Point Tracking (MPPT) algorithm maximizes the amount of energy harvested from the solar array for optimal efficiency.

The SolarMax can operate from any array voltage (up to 230 Volts open circuit) that is higher than the battery voltage for greater flexibility in your choice of solar panel array for your system.

Using the supplied software and the unit's PC communications port, you can view and program many of the SolarMax's operating parameters as well as log its operating data. The unit is also supplied with a battery temperature sensor, which when connected and installed on the battery will allow the charge controller to compensate the charging voltage in response to battery temperature.

Built for the safest operation, this unit features over voltage input protection, input and output current sensors and back feed prevention circuitry to protect the solar panel array.

3 YEAR WARRANTY



Available models

Input

30 - 120 Panel Volts (230 Voc Maximum)

Output

24 -72 V nominal, up to 100 A

Applications



SMP100 | MPPT SOLAR CHARGE CONTROLLER

INPUT

Max PV Open Circuit Voltage (Voc)	230 V
Solar Panel Voltage Range	30-120 V Typical
Input Amps (max)	100 A
Input Protection	No Internal Input Fuse, Recommend 100A in-line circuit breaker or fuse

OUTPUT

Battery Voltage Range*	24 -72 V (User Programmable)
Output Amps (max)	100 A
Standby Power Consumption	3 W Max
Efficiency	97 % @ maximum output
Charge Type	3 Stage: Bulk, Absorption, Float
Supported Battery Chemistry	Lead Acid (PbA)
Output Voltage Range	24 - 90V (User Programmable)
Battery Temperature Compensation	Consult your battery manufacturer (User Programmable)
MPPT	Tracks within 5% of max power point
Status Display	RS232-PC Interface
Output Protection	No Internal Output Fuse, Recommend 100A in-line circuit breaker or fuse

MECHANICAL

Length	19.5 in / 49.5cm
Width	8.9 in / 22.5 cm
Height	3.9 in / 10.0 cm
Clearance	1.0 in / 2.5 cm (all around)
Weight	11.5lb / 5.2 kg (estimated)
Material and Finish	Orange Anodized Marine Grade Aluminum
Fastenings	18-8 Stainless Steel
Connections	Marathon ST722, 300 V, 175A rating with two hole compression lugs on 0.625" centers with snap-on cover
Warranty	3 Years Parts and Labor
Patent	US Patent No. 6,690,590

ENVIRONMENTAL

Operating Temperature Range	-25°C to +55°C with thermal derating over +50°C
Certifications / Compliance	UL1741, CSA107.1 and CE pending
Data Logging	PC Data Logging software included

BENEFITS

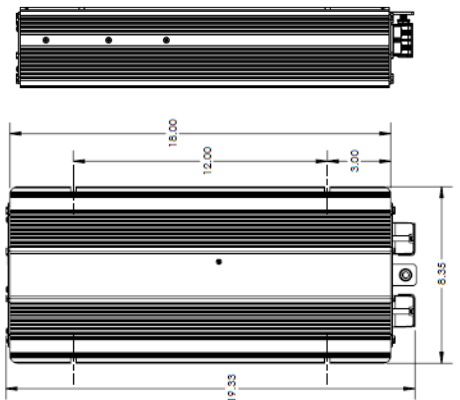
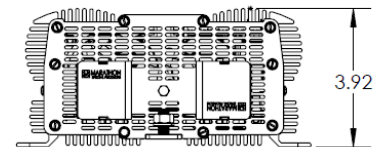
Efficient and reliable

MPPT charging for maximum solar panel efficiency

More flexibility in choice of solar array voltage

Three stage charging and temperature compensation for optimal battery charging effectiveness and increased battery life

DIMENSIONS



ANALYTIC SYSTEMS
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* Battery Voltage must be equal or less than Photovoltaic Array Voltage

** Specifications subject to change without notice