



**SUNSAVER™**  
SOLAR CONTROLLER

Morningstar's **SunSaver** is the world's leading small solar controller for both professional and consumer applications.

***SunSaver's technology provides:***

- Exceptional Reliability
- PWM Battery Charging
- Consistent High Quality

The SunSaver's advanced design delivers outstanding performance and value. The SunSaver's low cost is made possible by Morningstar's unique approach to design and manufacturing:

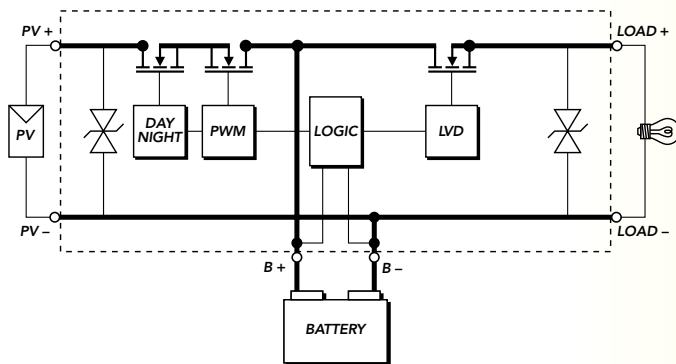
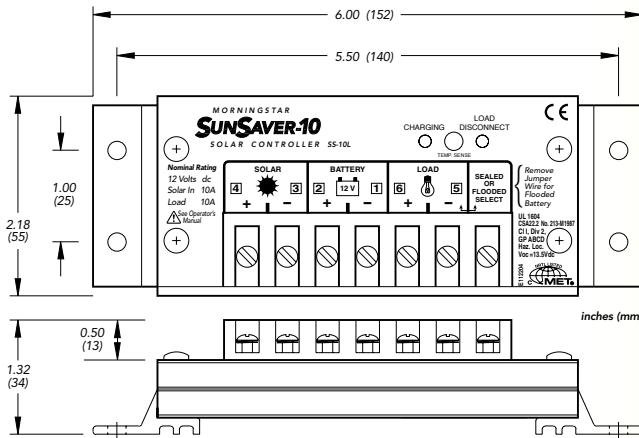
- Automated production
- ISO 9002 quality programs
- Latest power electronic technologies
- Latest control and logic technologies
- High volume manufacturing

***Features:***

- Eight versions available (see back)  
12 and 24 volts  
6, 10 and 20 amps
- 100% solid state
- Series design (not shunt)
- True 0 to 100% PWM duty cycle
- Setpoint accuracy to 35 mV
- Rated for 25% overloads
- Fully encapsulated in epoxy potting
- Marine rated terminals/anodized case
- Temperature compensation
- Sealed/Flooded battery select
- No need to derate
- Parallel for 40 amps or more
- Green charging/Red LVD indicators
- Approved for use in hazardous locations –  
Class 1, Division 2, Groups A, B, C, D

### SunSaver Model Selection Chart

MODEL NUMBER	SOLAR RATING (Amps)			LOAD RATING (Amps)			LVD	12V	24V
	0	10	20	0	10	20			
• SS-6	Blue	Yellow	Yellow	Blue	Yellow	Yellow	Blue	Blue	Yellow
• SS-6L	Blue	Yellow	Yellow	Blue	Yellow	Yellow	Blue	Blue	Yellow
• SS-10	Blue	Yellow	Yellow	Blue	Yellow	Yellow	Blue	Blue	Yellow
• SS-10L	Blue	Yellow	Yellow	Blue	Yellow	Yellow	Blue	Blue	Yellow
• SS-10-24V	Blue	Yellow	Yellow	Blue	Yellow	Yellow	Blue	Blue	Yellow
• SS-10L-24V	Blue	Yellow	Yellow	Blue	Yellow	Yellow	Blue	Blue	Yellow
• SS-20L	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue
• SS-20L-24V	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue



### Mechanical Specifications

Wire size #10 AWG (5.2 mm<sup>2</sup>)  
 Anodized aluminum case  
 Marine rated terminals  
 Epoxy encapsulated  
 Weight is 8 oz (0.23 kg)

### Electrical Specifications

	12 Volt	24 Volt
Rated Solar Input	6.5/10/20 A	
Rated Load	6/10/20 A	
25% Current Overload	5 min.	5 min.
Regulation Voltage:		
Sealed Battery	14.1 V	28.2 V
Flooded Battery	14.4 V	28.8 V
Load Disconnect	11.5 V	23.0 V
LVD Reconnect	12.6 V	25.2 V
Temp. Comp. (mV/°C)	-28	-56
Self-consumption	6 to 10 mA	
Operating Temp.	-40 to +85°C	

**WARRANTY:** Five year warranty period. Contact Morningstar or your authorized distributor for complete terms.



8 Pheasant Run  
 Newtown, PA 18940 USA  
 Tel: +1 215-321-4457 Fax: +1 215-321-4458  
 E-mail: [info@morningstarcorp.com](mailto:info@morningstarcorp.com)  
 Website: [www.morningstarcorp.com](http://www.morningstarcorp.com)

296 Labrosse Avenue, Pointe-Claire, QC, Canada, H9R 5L8  
 Tel: (514) 630-5630 Toll Free: 1-866-630-5630 Fax: (514) 426-9123  
[info@matrixenergy.ca](mailto:info@matrixenergy.ca) [www.matrixenergy.ca](http://www.matrixenergy.ca)