Morningstar’s SunSaver Duo is an advanced PWM two battery controller for RV’s, caravans, boats and cottages. This product will charge two separate and isolated batteries at the same time, such as a “house” and an engine battery, based on user selectable priorities.

The SunSaver Duo employs Morningstar’s legendary SunSaver controller technology, whose long-term track record for high reliability and improved battery charging is well-recognized in the solar industry. This controller also includes a backlit remote meter which may be mounted in or on a wall, and displays digital and pictorial status information about the solar power system.

The SunSaver Duo is epoxy encapsulated for environmental protection, is user adjustable via DIP switch or connection to a personal computer, and has an optional remote temperature sensor.

**Key Features and Benefits:**

- **Two Battery Charging**
  Solar charge current is shared between the two batteries based on a user selectable priority. When one battery is fully charged, all of the charge current flows to the other battery.

- **Provides Useful Information**
  The remote meter and LED’s display system status data and any system errors. Custom icons and back lighting make the meter easy to read and understand.

- **Lower Cost**
  Two battery charging eliminates the added cost of two separate solar charging systems and the need for isolation between the batteries.

- **Easy to Install**
  The controller is installed near the batteries using the clearly labeled large wire terminals. The remote meter may be mounted in the wall or on the wall using the included frame. Also includes the meter wiring with RJ-11 connector.

- **Longer Battery Life**
  Four stage series PWM pulse charging and temperature compensation increases the useful life of the batteries.

- **Extensive Electronic Protections**
  The controller will not be damaged by wiring mistakes during installation. There are no fuses to replace, and the controller will automatically re-set after a wiring mistake.

- **Highly Reliable**
  Epoxy encapsulation protects the controller against dust and high humidity. Efficient electronics and a conservative thermal design allow the controller to operate reliably at high temperatures. Five year warranty and estimated 15 year life.
SUNSAVER DUO™ SOLAR CONTROLLER

TECHNICAL SPECIFICATIONS

Electrical
- Rated Solar Input: 25 amps
- Rated Load Output: Not applicable
- Battery Voltage: 12 volts
- Min. Battery Voltage: 1 volt
- Max. Battery Voltage: 15 volts
- Max. Solar Voltage: 30 volts
- Self Consumption:
  - Controller: 6 to 10 milliamps
  - Remote meter: 6 to 15 milliamps

Environmental
- Operating Ambient Temperature:
  - Controller: –40°C to +45°C / –40°F to +113°F
  - Meter: –20°C to +60°C / –4°F to +140°F
- Humidity: 100% non-condensing
- Tropicalization:
  - Controller: Epoxy encapsulation, Anodized aluminum case, Corrosion resistant terminals
  - Meter: Conformal coated printed circuit board

Battery Charging
- Regulation Voltage:
  - Sealed Battery: 14.1 volts (at 25°C, 77°F)
  - Flooded Battery: 14.4 volts (at 25°C, 77°F)
- Float Voltage: 13.7 volts
- Equalization Voltage: 14.8 volts
- Type of Charging: Series PWM
- Batteries Charging Priority: 90% / 10%
- Customizable via PC connection

Mechanical
- Controller: 17.0 x 5.6 x 4.1 cm / 6.7 x 2.2 x 1.6 in.
- Meter: 9.7 x 9.7 x 3.1 cm / 3.8 x 3.8 x 1.2 in.
- Meter back: 7.4 cm / 2.9 in. diameter
  - Battery charge Amps / Amp-hours
- Weight:
  - Controller: 260 g / 0.57 lb
  - Meter: 135 g / 0.30 lb
- Largest wire: 16 mm² (#6 AWG)
- Meter wire: 10 m / 33 ft

Options
- Remote Temperature Sensor: Measures temperature at battery for improved battery charging

Certifications
- CE Compliant
- Manufactured in a certified ISO 9001 facility

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

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