

SB3000i

30A/22A, @12V, MPPT



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

Compact, reliable, and fully programmable: the SB3000i is ready to work! The SB3000i, featuring our patented MPPT technology, is ideal for RVs and Marine applications with a second battery output and IPN connection for remote display and networking. This controller can be programmed from its onboard display or in conjunction with an IPN ProRemote. This gives maximum flexibility when operating PV street lighting or using for smallscale offgrid electrification. Compatible with FLA, AGM, Gel, and Lithium batteries. Its IPN Network interface can communicate with other Blue Sky Energy charge controllers as a single charging system, allowing increased flexibility and optimization in system design.

Product Features

- Patented MPPT technology charges batteries faster
- Networks with other Blue Sky controllers for higher power (SB3000i only master)
- Longer battery life with advanced multi-stage charging (FLA,AGM,GEL)
- Equalize batteries automatically or manually
- Charge a second battery or control a DC load output
- Program for Dusk-to-Dawn Lighting Control with the IPN Pro Remote
- Battery Temperature Compensation (with external battery temp. sensor)
- Protects battery from deep discharge (via load output)
- Automatically reconnects load when power is available

Display

- LEDs for charge and load status
- LED display for battery voltage, charge current, and [..XXX]
- Remote Display optional (IPN ProRemote, IPN Remote)

Protection

- PV array overload
- PV array reverse polarity
- Battery reverse polarity

Accessories

- IPN Remote - remote display for monitoring one or more controllers
- IPN ProRemote - remote display w/ programming and battery monitoring
- UCM - monitor and program controllers online
- External battery temperature sensor
- Mounting Wall Box (720-0011-01)

97% peak efficiency •

Fast MPP Tracking •

Excellent performance •

IPN Network compatible •

Fully Programmable •



Specifications:

SB3000i @12V

Maximum PV Power:	400W with 36-cell PV panel ^(*) 290W with 60-cell PV panel ^(*)
Rated Battery (Output) Current:	30A with 36-cell PV panel ^(*) 22A with 60-cell PV panel ^(*)
Conversion Efficiency:	97% (typical @28V / 24A output)
Power Consumption:	0.36W (typical standby)
Recommended Max Panel Voc at STC:	40V (Max Panel Input 50V)
Charge Profile:	Multi-Stage plus Manual or Automatic Equalization
Absorption Voltage:	14.4V ⁽¹⁾
Float Voltage:	13.2V ⁽¹⁾
Equalization Voltage(if enabled):	15.2V ⁽¹⁾
Auxiliary Output (option A, B, or C):	A) Auxiliary Battery Charge 2A (2nd battery) B) Load Control C) Dusk-to-Dawn and PWM dimming ⁽¹⁾
Load (LVD) Disconnect/Reconnect Voltage:	11.5V/12.6V ⁽¹⁾
Maximum Auxiliary Output current (option B or C):	20A
Display:	Yes
Temperature Compensation (by optional Battery Temperature Sensor):	-5.00mV/°C/cell correct factor (Range 0.00 to -8.00mV/°C/cell) ⁽¹⁾
Operating Temperature:	-40°C – 45°C
Maximum Full Power Ambient:	45°C
Environmental Protection:	IP20
Connection:	Battery and PV terminals #16-8 AWG (tightened 15.9 in-lb, 1.80 nm) Auxiliary Output terminals #26-12 AWG (tightened 6 in-lb, 0.67 nm) IPN Network terminals #26-14 AWG wire (tightened 2.1 in-lb, 0.24 nm)
Weight:	1.08 lb. (493 g)
Dimensions:	6.35 x 4.6 x 2.2" (16.1 x 11.7 x 5.6 cm)
Warranty:	5 years (Tech. Bulletin #100218)
Certifications:	CE, RoHS, FCC

^(*) 36-cell panels are typically referred to as "12V panels" providing Vmp/Voc of ~18V/22V at STC, 60-cell panels refers to "20V panels" (Vmp/Voc ~30V/37V), 72-cell panels refers to "24V panels" (Vmp/Voc ~36V/44V). ⁽¹⁾ Factory default, programmable via digital display.

