

SB2512i(X)-HV | SB2512iX-HV-Li 25A/20A, @12V, MPPT



Marine | RV | PV Street Lighting | Solar Traffic Signal

The SB2512iX-HV(-Li) features our patented MPPT technology, a second auxiliary battery output and IPN connector for remote display or Bluetooth adapter, is ideal for RVs and Marine. The SB2512iX-HV(-Li), can manage a 25A @12V DC Load Output for medium size off-grid electrification applications and with an IPN ProRemote, BT Connect, or UCM, the DC Load Output can be programmed with its dusk-to-dawn load control for PV street lighting. The SB2512iX-HV, is programmed for Lead Acid batteries while the SB2512iX-HV-Li is programmed for charging a 4S LiFePO4 batteries. Both versions can be programmed with a remote display, UCM or BT Connect for a custom charge profile for any type of batteries.

Product Features

- Patented MPPT technology charges batteries faster
- Surface or Flush Wall Mounting
- Longer battery life with advanced multistage charging (FLA, AGM, GEL. LFP)
- Charge a second battery or control a DC load output with Low Voltage Disconnect (LVD)
- Program for Dusk-to-Dawn Lighting Control with the IPN ProRemote, UCM or BT Connect
- Battery Temperature Compensation (with external battery temp. sensor)
- Programmable for Lithium batteries with the IPN ProRemote, ProTouch, UCM or BT Connect
- IPN Networks up to 8 Blue Sky Energy controllers for higher power (Master-Followers)

Display

- LEDs for charge and DC load output status
- Remote Display optional (IPN ProRemote, ProTouch, IPN Remote)

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- PV array overload and reverse polarity
- Battery reverse polarity

Accessories

- IPN Remote remote display for monitoring
- IPN ProRemote remote display w/ programming and battery monitoring
- ProTouch touchscreen remote display for monitoring and basic programming
- BT Connect Bluetooth adapter for programming and battery monitoring
- UCM gateway for monitoring and programming via the Internet



96% peak efficiency ·

Fast MPP Tracking •

Excellent performance •

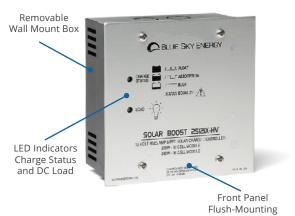
IPN Network compatible •

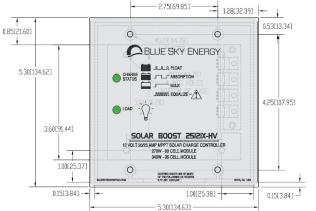
Great for Boats and RV's •

BLUE SKY ENERGY SB2512IX-HV(-LI) DATA SHEET, REVISION 2.0 | 2022

Specifications:	SB2512i-HV (Discountinued)	SB2512iX-HV	SB2512iX-HV-Li
Maximum PV Power:	340 W with 36-cell PV panel ⁽¹⁾		
	270 W with 60-cell PV panel ⁽¹⁾		
Rated Battery (Output) Current:	25 A with 36-cell PV panel ⁽¹⁾		
	20 A with 60-cell PV panel ⁽¹⁾		
Min. Battery Voltage for Operation:	9 V		
Conversion Efficiency:	96% (typical @14V / 20A output)		
Power Consumption:	0.30 W (typical standby)		
Recommended Max Panel Voc at STC:	40 V (Max Panel Input 50 V)		
Display:	w/ IPN ProRemote, ProTouch, or IPN Remote (optional)		
Charge Profile:	Multi-Stage charging ⁽²⁾		
Battery Chemistry:	Lead Acid		4S LiFePO ₄
Absorption Voltage:	14.2V ⁽²⁾		14.4V ⁽²⁾
Absorption Time:	2.0 Hr ⁽²⁾		0.5 Hr ⁽²⁾
Float Voltage:	13.2V ⁽²⁾ 13.6 V ⁽²⁾		13.6 V ⁽²⁾
Equalization Voltage (if enabled):		15.2V ⁽²⁾	Disabled
Auxliary Output (option A, B, or C):	A) Auxiliary Battery Charge 2 A		
		B) DC Load Control with LVD	
		C) Dusk-to-Dawn (IPN ProRemote, UCM or BT Connect)	
Load (LVD) Disconnect/Reconnect Voltage:		11.5 V / 12.6 V ⁽²⁾	11.0 V / 12.0 V ⁽²⁾
Maximum Auxiliary Output current (option B or C):		25 A	25 A
Temperature Compensation (by optional Battery Temperature Sensor):		-5.00 mV/°C/cell correct factor (Range 0.00 to -8.00 mV/°C/cell) ⁽²⁾	Disabled
Operating Temperature:	-40°C – 45°C		
Maximum Full Power Ambient:	45 °C		
Environmental Protection:	IP20		
Connection:	Battery and PV terminals #20-10 AWG (tightened 9 in-lb, 1 nm)		
	Auxiliary Output terminals #20-10 AWG (tightened 9 in-lb, 1 nm)		
	IPN Network terminals #24-14 AWG wire (tightened 2.1 in-lb, 0.24 nm)		
Dimensions and Weight:	5.3 x 5.3 x 2.5" (13.5 x 13.5 x 6.35 cm) ; 0.87 lb. (395 g)		
Warranty:	5 years		
Certifications:	CE, RoHS, FCC		

(1) 36-cell panels are typically referred to as "12 V panels" providing Vmp/Voc of ~18 V / 22 V at STC, 60-cell panels refers to "20 V panels" (Vmp/Voc ~30 V / 37 V), 72-cell panels refers to "24 V panels" (Vmp/Voc ~36 V / 44 V). (2) Factory default voltages unless programmed with an IPN ProRemote display, BT Connect, ProTouch or UCM.







Side View

Front View