

Selector guide – Solar Boost™ Maximum Power Point Tracking (MPPT) Solar Charge Controllers

Charge Controllers	Nominal Battery Voltage	Nominal PV Input Voltage ①	Maximum PV Power ②	Maximum Output Current	Charge Algorithm	Digital Display	Remote Display Capability	Load Control	Agency Approvals	Typical Applications
Solar Boost 2000E	12V	12V	350W	25A	2-stage +Equalization	Yes	No	No	—	Small to medium 12V systems; RV's, boats, small off grid cabins, small industrial & agricultural
Solar Boost 50L	12/24V	12/24V	700/1400W	50A	3-stage +Equalization	Optional	Yes	No	ETL/cETL CE, FCC	Medium to large 12/24V systems; larger RV's & Boats, medium to large on or off grid homes, larger industrial & agricultural
Solar Boost 3048L	24/48V	24/48V	800/1600W	30A	3-stage +Equalization	Optional	Yes	No	ETL/cETL CE, FCC	Large 24/48V systems; large on or off grid homes, larger industrial & agricultural, 48V output for telecommunications
Solar Boost 6024HL	12/24V	36/48V	800/1600W	60A	3-stage +Equalization	Optional	Yes	No	ETL/cETL CE, FCC	Large 12/24V systems where higher 36/48V input is desired to reduce wire size/cost; large on or off grid homes, larger industrial & agricultural
Solar Boost 3024iL	12/24V	12/24V	540/800W ③	40/30A ③	3-stage +Equalization	Optional	Yes	20A LVD & Flexible Lighting controller	ETL/cETL CE, FCC	Medium 12/24V systems; larger RV's & Boats, on or off grid cabins or homes, larger industrial & agricultural. Includes aux. output for 20A load control or 2 nd battery charge, and IPN™ network interface to easily combine multiple units for very large systems.
Solar Boost 2512i	12V	12V	350W	25A	3-stage	No	Yes	No	—	Small to medium 12V systems; RV's, Boats, small off grid cabins, small industrial and agricultural. Includes limited IPN network interface to support IPN displays only.
Solar Boost 2512iX	12V	12V	350W	25A	3-stage +Equalization	No	Yes	25A LVD & Flexible Lighting controller	—	Small to medium 12V systems; RV's, Boats, small off grid cabins, industrial and agricultural. Includes auxiliary output for 25A load control or 2 nd battery charge, and IPN™ network interface to easily combine multiple units for larger systems.

① Nominal PV module voltage must be greater than or equal to nominal battery voltage. PV V_{OC} rating at STC should not exceed maximum controller rating ± 1.25 . See operators manual and Technical Bulletins 100214 & 100210. Typical 12V nominal PV module provides $V_{MP} \approx 17V$ & $V_{OC} \approx 21V$ at STC.

② Approximate maximum PV power handling capability after applying NEC 1.25 current derating. Note that doubling battery voltage doubles power handling capability at the same current. See operators manual and Technical Bulletin 100210 for proper sizing based on PV module I_{SC} .

③ Solar Boost 3024iL supersedes SB3024i & SB3024Di, and is rated for 40A output while charging a 12V battery from nominal 12V PV modules. Rating is 30A if PV voltage is greater. See operators manual.

Charge Controller Displays	Compatible Charge Controller	Agency Approvals	Typical Applications and Features
SB50 Display	SB50L 3048L, 6024HL	ETL/cETL CE, FCC	Available installed in product enclosure (append 'D' to p/n) and/or as a remote charge control display. Provides simple display of Input/Output current, Battery Voltage and Charge System Status.
IPN-ProRemote	SB3024i(L), 2512i(X) & future IPN based charge controllers	ETL/cETL CE, FCC	This easy to use full featured system monitor makes living on a renewable energy system a breeze. The IPN-ProRemote display combines the best in both charge control monitoring and complete battery system monitoring. It includes a variety of easy to use amp-hour counters, data capture functions, and a highly accurate "fuel gauge" remaining battery capacity display that learns from use to continuously improve accuracy. The IPN-ProRemote can monitor up to 8 IPN based charge controllers.
IPN-Remote	SB3024i(L), 2512i(X) & future IPN based charge controllers	ETL/cETL CE, FCC	The very low cost IPN-Remote provides a simple Battery Voltage and Solar Charge Current display for IPN base charge controllers. The IPN-Remote can monitor up to 8 charge controllers on the IPN network.