

Solar charge controller

> Compact design

> Advanced 4-stage PWM charging

> Reliable remote video surveillance



NSBox-SUN access node is used to deploy protected autonomous or semi-autonomous outdoor applications in the area with no 24/7 electricity available and solar panels can be installed. Off-grid solar systems work by generating electricity from solar panels and using it to charge a battery via a charger controller. NSBox-SUN contains a charger controller that supports 18-40V solar panels up to 350W and maintains the proper charge of the battery to prevent overcharging and over-discharging. Battery capacity can be up to 200 Ah.

The NSBon-51 charge controller is housed in small and rugged DIN rail or mounting panel mountable housing. The controller has three pairs of contacts for connecting the solar panel, battery and load. The front panel contains status LEDs and an integrated temperature sensor. Compensation -56 mV for each degree from 25C, reduces voltage with increasing temperature and vice versa. With temperature compensation charging, charging parameters are automatically adjusted.

NSBon-51 monitors the state of the battery, controls the process of connecting and disconnecting the load, uses an upgraded 4-stage PWM charging algorithm. All this allows the battery to be used in optimal mode, thus extending the battery's service life.

The main protective functions of the controller:

- Overcharge protection,
- Over-discharge protection,
- Protections for short circuit,
- Battery protection against undervoltage,
- Battery protection from discharge through the solar panel at night.

This device is working exclusively with solar panels. It is not recommended to connect wind turbines. The controller provides protection for input and output contacts against overload, overvoltage, short circuit, reverse polarity and operates over a wide industrial temperature range -40°C to +60°C.

Technical Data

Rated Voltage: 24V	Charging method: Advanced 4-stage PWM
Maximum PV Volts: 44V	Protected: overcharge, over-discharge, short circuit, reverse polarity, battery undervoltage
Rated PV Input: 20A	Operating Temp.: -40 to +60°C (-22 to 140°F)
Rated Load: 20A	Temp Compensation: -56 mV/°C
Maximum array short circuit current: 25A	Wire size: 5.2 mm ² / AWG #10
Regulation voltage Sealed battery: 28,2V	Dimensions: 152 x 55 x 34 mm
Load disconnect: 23V	Weight (unpacked): 230 g
LVD reconnect: 25,2V	

Applications

Remote Power Systems | Solar Lighting | Solar Power Applications



Ordering Information

NSBon-51

SS20L24V

Solar charge controller 20A | 24V | PWM, Relay, mounting installation kit