SN SERIES

MPPT Solar Charge Controller

SN100-30 / SN100-60	12 / 24VDC	**SN150-35**	12 / 24 / 36 / 48VDC

The LIBERGRID SN Series MPPT Solar Charge Controller is designed for mobile off-grid power applications such as RVs, utility vehicles, and marine systems. It maximizes solar energy harvest by continuously tracking the maximum power point (MPP) of the PV array, delivering maximum charging current to the battery in real time.

Featuring an advanced MPPT algorithm and a built-in multi-stage charging profile, the controller supports a wide PV input voltage range and is compatible with multiple battery chemistries and nominal battery voltages, including GEL, AGM, LFP, and WET batteries, enabling fast and efficient solar charging.



FEATURES

- With up to 99.5% MPPT tracking efficiency
- Supports 12V, 24V, 36V, and 48V battery systems (selected models only)
- Supports 5A trickle charging for 12V starter batteries (selected models only)
- Automatic temperature compensation
- One programmable dry contact output
- Built-in Bluetooth for App monitoring and OTA firmware updates
- Isolated communication interfaces: 1 × CAN and 1 × Display
- IP40 rated for demanding vehicle environments
- Fanless natural cooling for completely silent operation
- Supports 365 days of charging records and event recording



Model NO.		SN100-30	SN100-60	SN150-35
Electrical				
Nominal Battery Voltage (V)		12 / 24		12 / 24 / 36 / 48
Max. Battery Current (A)		30	60	35
Starter Battery Charge Current (A)		3 Max		/
Nominal PV Power (W)	12V	440	880	500
	24V	880	1760	1000
	36V	/	/	1500
	48V	/	/	2000
Max. PV Short Circuit Current (A)		30	60	35
Max. PV Open Circuit Voltage (V)		100		150
Max. Efficiency (%)		98		
Self-Consumption (mA)		20 (12V), 15 (24V), 10 (48V)		
Absorption Voltage (V)		Default setting: 14.1 / 28.2 / 42.3 / 56.4 (adjustable)		
Float Voltage (V)		Default setting: 13.5 / 27 / 40.5 / 54 (adjustable)		
Charge Algorithm		GEL/OpzV, AGM, LFP, WET/Flooded or user defined algorithm		
Temperature Compensation (mV/℃)		-18 (12V), -36 (24V), -54 (36V), -72 (48V)		
Protection		PV short circuit/reverse polarity, output short circuit, over-temperature		
Operating Temperature (℃)		-30 to 60 (full rated output up to 40)		
Humidity (%)		95, non-condensing		
Maximum Altitude (m)		5000 (full rated output up to 2000)		
Environmental Condition		Indoor type 1, unconditioned		
Pollution Degree		PD2		
Data Communication		CAN / RV-C / Bluetooth / WiFi		
Dry Contact Output Triggers		High PV voltage, low/high battery voltage, high/low temperature, float active, solar charger error, day detection		
Enclosure				
Colour		Black		
Power Terminals		16 mm² / AWG 6		
IP Rating		IP40 (electronic components), IP20 (connection area)		
Weight (kg)		1.2	1.5	
Dimensions (mm)		181 x 148 x 52	181 x 148 x 67	
Standards				
Safety Standards		EN/IEC 62109-1/2 / UL 1741 / CSA C22.2 NO.107.1-16		

