SOL ECO MPPT 20A (100V) 12/24V SOLAR CHARGE CONTROLLER + LCD + BLUETOOTH

REGULAR RANGE

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CATEGORY
Photovoltaic panels and accessories

SUBCATEGORY
Solar charge controllers MPPT

PRODUCT PAGE
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ABOUT THE PRODUCT

SOL ECO MPPT 20A (100V) 12/24V SOLAR CHARGE CONTROLLER + LCD + BLUETOOTH is a controller designed to charge batteries from a set of solar panels. It uses MPPT technology, automatically detects the system voltage 12V / 24V and supports gel, AGM, flooded and lithium batteries. The maximum charging current is 20A.

The device is equipped with a clear LCD display and Bluetooth communication, enabling operation and monitoring of operating parameters using the Solarlife, SolarLifeBT or Solarlife PRO applications, available in the Apple Store and Google Play stores. Battery parameter settings LiFePO4 are available exclusively through the smartphone application.

The controller performs four-stage charging: MPPT, BOOST, Equalization and Float. It has a temperature sensor with automatic temperature compensation, always-on, dusk-to-dawn, night and manual load-control modes, as well as automatic short-circuit, thermal and overload protection. The / tracking conversion efficiency is > 99,9%.

Before starting operation, select the appropriate battery type in the settings. Using an incorrect charging mode may result in faster wear or damage to the battery and loss of its warranty. For photovoltaic installations, batteries designed for cyclic operation are recommended, including gel GEL VPRO SOLAR, DEEP CYCLE VPRO SOLAR or lithium LiFePO4 batteries.

TECHNICAL SPECIFICATIONS

System and Battery Parameters	**System voltage**	12V / 24V (Automatic detection)
	Max. charging current	20A
	Battery type	Gel (Gel), AGM, Liquid (Liquid), Lithium (default: Gel)
	Maximum battery terminal voltage	35V
	BOOST voltage (at 25°C)	14.0~14.8V / 28.0~29.6V (default: 14.5V / 29.0V)
	Equalization voltage (at 25°C)	14.0~15.0V / 28.0~30.0V (default: 14.8V / 29.6V)
	Float voltage (at 25°C)	13.0~14.5V / 26.0~29.0V (default: 13.7V / 27.4V)
	Overcharge protection	15.8V / 31.3V
	Temperature compensation	-4.17mV/K per cell (Boost, Eq); -3.33mV/K per cell (Float)
	Parameters for lithium batteries	Target: 10.0~32.0V; Disconnection (LVD): 9.0~30.0V
PV input (Solar Panel)	**Maximum voltage from panels (Vmp)**	100V (at -20°C) / 90V (at 25°C)
	Maximum panel current (Imp)	20A
	Day detection threshold/night	3.0~10.0V / 6.0~20.0V (default 8V / 16V)
	Tracking range MPPT	(Battery voltage + 2.0V) ~ Voc*0.9
Load output	**Output current**	20A
	Low-voltage load disconnect (LVD)	10.8~11.8V / 21.6~23.6V (default: 11.2V / 22.4V)
	Reconnect voltage (LVR)	11.4~12.8V / 22.8~25.6V (default: 12.0V / 24.0V)
	Load mode	Always on, streetlight, user mode
Efficiency and Communication	**Maximum tracking efficiency (MPPT)**	> 99.9%
	Maximum charging conversion	98.0%
	Self-power consumption (self-consumption)	≤ 12mA (for 12V and 24V)
	Communication	BLE (Bluetooth), RS485 (RJ11 interface)

TECHNICAL SPECIFICATIONS - CONTINUED

Environment and Dimensions	**Protection level (Protection)**	IP32
	Grounding	Common negative
	Power connectors	6 AWG (16 mm²)
	Ambient temperature	-20°C ~ +55°C
	Ambient humidity	0 ~ 100% RH
	Maximum operating altitude	4000m
	Dimensions	136,6 x 136,6 x 67,1 mm
	Net weight	830 g
	Unit packaging weight	1000 g

PRODUCT GALLERY





PRODUCT GALLERY - CONTINUED



VOLT POLSKA Sp. z o.o.

ul. Świemirowska 3, 81-877 Sopot
NIP 5851458032 | REGON 221142660
KRS 0000372066

voltpolska.pl
(58) 500-85-62
hurt@voltpolska.pl
pomoc@voltpolska.pl

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