



Item no. 322/385
Manufacturer's no. V0009740

Solar Charge Controller MPPT SmartSolar, 50 A



Information

Dimensions	186 x 130 x 70 mm
Pack size	20.5 x 13 x 9 cm
Net weight	1.3 kg
Gross weight	1.63 kg
Catalogue page	582

Including Bluetooth Smart

The wireless solution for setting up, monitoring and updating the SmartSolar charge controller. For a wired data connection with a Colour Control GX, other GX products, a PC or other devices.

Ultra-fast Maximum Power Point Tracking (MPPT)

Particularly in cloudy conditions, when the light intensity is constantly changing, an extremely fast MPPT controller improves the energy yield by up to 30% compared to PWM charge controllers and by up to 10% compared to slower MPPT controllers.

Load output

Deep discharging of the battery can be prevented by connecting all loads to the load output. The load output disconnects the loads when the battery has been discharged to a specified voltage value (48 V model: interface to a relay). Alternatively, an algorithm for intelligent battery management can be selected: see BatteryLife. The load output is short-circuit proof.

BatteryLife – intelligent battery management

If the solar charge controller is not able to charge the battery

Specifications

Colour	blue
Charging current	50 A
Nominal capacity	700 W
Nominal voltage	12 V 24 V
Nominal current	50 A
Type	MPPT 100/50

to its full capacity within a day, the status of the battery constantly switches back and forth between „partially charged“ and „end of discharge“. This operating mode (no regular full charge) will damage a lead-acid battery within a few weeks or months.

The BatteryLife algorithm monitors the state of charge of the battery. If necessary, it raises the threshold for disconnecting the load day by day (i.e. the load is disconnected earlier) until the energy gained is sufficient to charge the battery to almost 100%. From this point, the threshold for disconnecting the load is modulated so that charging to almost 100% is achieved approximately once a week.

Internal temperature sensor

Equalises constant and float charge voltages according to the temperature.

Option: external battery voltage and temperature measurement via Bluetooth

A Smart Battery Sense or a BMV-712 Smart Battery Monitor can be used to transmit the battery voltage and temperature data to one or more SmartSolar charge controllers.

Recovery function for fully discharged batteries

Initiates charging even if the battery has been discharged to zero volts. Reconnects to a fully discharged lithium-ion battery with internal disconnect function.

Features:

- Protection class: IP43
- Connections: screw terminals for max. 6 mm² cable
- VE.Direct for data exchange