

# SmartSolar Charge Controller MPPT 150/35



#### Bluetooth Smart built-in: dongle not needed

The wireless solution to set-up, monitor and update the controller using Apple and Android smartphones, tablets or other devices.

#### **VE.Direct**

For a wired data connection to a Color Control GX, other GX products, PC or other devices

### **Ultrafast Maximum Power Point Tracking (MPPT)**

Especially in case of a clouded sky, when light intensity is changing continuously, an ultra-fast MPPT controller will improve energy harvest by up to 30% compared to PWM charge controllers and by up to 10% compared to slower MPPT controllers

#### Advanced Maximum Power Point Detection in case of partial shading conditions

If partial shading occurs, two or more maximum power points may be present on the power-voltage curve.

Conventional MPPTs tend to lock to a local MPP, which may not be the optimum MPP.

The innovative BlueSolar algorithm will always maximize energy harvest by locking to the optimum MPP.

#### **Outstanding conversion efficiency**

No cooling fan. Maximum efficiency exceeds 98%. Full output current up to 40°C (104°F).

#### Flexible charge algorithm

Fully programmable charge algorithm (see the software page on our website), and eight preprogrammed algorithms, selectable with a rotary switch (see manual for details).

#### **Extensive electronic protection**

- Over-temperature protection and power derating when temperature is high.
- PV short circuit and PV reverse polarity protection.
- PV reverse current protection.

### Internal temperature sensor

Compensates absorption and float charge voltage for temperature.

## Real-time data display options

- Apple and Android smartphones, tablets and other devices.
- Color Control GX or other GX products.

SmartSolar Charge Controller	MPPT 150/35
Battery voltage	12 / 24 / 48V Auto Select (software tool needed to select 36V)
Rated charge current	35A
Nominal PV power 1a, b)	12V: 500W / 24V: 1000W / 36V: 1500W / 48V: 2000W
Max. PV short circuit current 2)	40A
Maximum PV open circuit voltage	150V absolute maximum coldest conditions 145V start-up and operating maximum
Maximum efficiency	98%
Self-consumption	12V: 20mA 24V: 15mA 48V: 10mA
Charge voltage 'absorption'	Default setting: 14,4 / 28,8 / 43,2 / 57,6V (adjustable)
Charge voltage 'float'	Default setting: 13,8 / 27,6 / 41,4 / 55,2V (adjustable)
Charge algorithm	multi-stage adaptive (eight pre-programmed algorithms)
Temperature compensation	-16 mV / -32 mV / -64 mV / °C
Protection	Battery reverse polarity (fuse, not user accessible) PV reverse polarity Output short circuit Over-temperature
Operating temperature	-30 to +60°C (full rated output up to 40°C)
Humidity	95%, non-condensing
Data communication port	VE.Direct See the data communication white paper on our website
ENCLOSURE	
Colour	Blue (RAL 5012)
Power terminals	16 mm² / AWG6
Protection category	IP43 (electronic components), IP22 (connection area)
Weight	1,25 kg
Dimensions (h x w x d)	130 x 186 x 70 mm
STANDARDS	
Safety	EN/IEC 62109-1, UL 1741, CSA C22.2
<ul> <li>1a) If more PV power is connected, the controller will limit input power.</li> <li>1b) The PV voltage must exceed Vbat + 5V for the controller to start.</li> <li>Thereafter the minimum PV voltage is Vbat + 1V.</li> <li>2) A PV array with a higher short circuit current may damage the controller.</li> </ul>	





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