



EN43520

12/24V 20Ah MPPT Solar
Controller w/ Display

Features:

- CE certification (LVD EN/IEC62109, EMC EN61000-6-1/3)
- LCD display
- Advanced MPPT technology & ultra-fast tracking speed guarantee's tracking efficiency up to 99.5%
- Maximum DC/DC transfer efficiency is as high as 98.6%.
- Advanced MPPT control algorithm to minimize the MPP lost rate and lost time
- Accurate recognition and tracking of multi-peaks maximum power point
- Wide MPP operating voltage range
- Support lead-acid and lithium batteries
- Real-time energy statistics function
- Power reduction automatically over temperature value
- Multiple load work modes
- Comprehensive electronic protection
- IP33 Ingress protection
- Comms port included for future applications

Specifications:

EN43520	
Nominal Voltage Range	12/24VDC Auto Select ¹
Battery Voltage Range	8 ~ 32V
Maximum Battery Current Output	20A
Maximum Load Current Output	20A
Maximum PV Open Circuit Voltage	100V ² 92V ³
MPPT Voltage Range	(Battery Voltage + 2V) - 72V
Maximum PV Array Power Recommended	300W/12V 600W/24V
Maximum PV Array Power Allowed (Overdrive)	360W/12V 720W/24V
Efficiency (Maximum)	98.30%
Self-Consumption	≤30mA (12V) ≤16mA (24V)
Temperature Compensate Coefficient ⁴	-3mV/°C/12V (Default)
Grounding	Common Negative
RS485 Interface	5VDC/200mA (RJ45)
LCD Backlight Timeout	Default: 60S, Range: 0~999S (OS: the backlight is ON all the time)
Environmental Parameters	
Environmental Temperature ⁵	-25°C ~ +50°C
Storage Temperature Range	-20°C ~ +70°C
Relative Humidity	≤95%, N.C.
IP Rating	IP33
Mechanical Parameters	
Dimensions (mm) LxWxH	217 x 158 x 56.5
Mounting Hole Dimensions (mm)	160 x 149
Mounting Hole Size	φ5mm
Maximum Cable Size (Connector Input/Output)	10AWG (6mm ²)
Recommended Cable Size (Connector Input/Output)	10AWG (6mm ²)

Note: Specifications subject to change without notice.

1. When lithium battery is used, the system voltage can't be identified automatically.
2. At minimum operating environment temperature.
3. At 25°C environment temperature.
4. When lithium battery is used, the temperature compensates coefficient must be 0, and can't be changed.
5. The controller can supply full load working in the environment temperature. When the internal temperature reaches 81°C, the reduced charging power mode is turned on.