

BlueSolar charge controller MPPT 150/70

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Solar charge controller
MPPT 150/70

Charge current up to 70 A and PV voltage up to 150 V

The BlueSolar 150/70-MPPT charge controller is able to charge a lower nominal-voltage battery from a higher nominal voltage PV array.

The controller will automatically adjust to a 12, 24, 36, or 48 V nominal battery voltage.

Ultra fast 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 MPPT's 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

Several preprogrammed algorithms. One programmable algorithm.

Manual or automatic equalisation.

Battery temperature sensor. Battery voltage sense option.

Programmable auxiliary relay

For alarm or generator start purposes

Extensive electronic protection

Over-temperature protection and power derating when temperature is high.

PV short circuit and PV reverse polarity protection.

Reverse current protection.

BlueSolar charge controller	MPPT 150/70
Nominal battery voltage	12 / 24 / 36 / 48V Auto Select
Rated charge current	70A @ 40°C (104°F)
Maximum solar array input power	12V: 1000W / 24V: 2000W / 36V: 3000W / 48V: 4000W
Maximum PV open circuit voltage	150V absolute maximum coldest conditions 145V start-up and operating maximum
Minimum PV voltage	Battery voltage plus 7 Volt to start Battery voltage plus 2 Volt operating
Standby power consumption	12V: 0,55W / 24V: 0,75W / 36V: 0,90W / 48V: 1,00W
Efficiency at full load	12V: 95% / 24V: 96,5% / 36V: 97% / 48V: 97,5%
Absorption charge	14.4 / 28.8 / 43.2 / 57.6V
Float charge	13.7 / 27.4 / 41.1 / 54.8V
Equalization charge	15.0 / 30.0 / 45 / 60V
Remote battery temperature sensor	Yes
Default temperature compensation setting	-2,7mV/°C per 2V battery cell
Programmable relay	DPST AC rating: 240VAC/4A DC rating: 4A up to 35VDC, 1A up to 60VDC
CAN bus communication port	Two RJ45 connectors, NMEA2000 protocol
Operating temperature	-40°C to 60°C with output current derating above 40°C
Cooling	Natural Convection
Humidity (non condensing)	Max. 95%
Terminal size	35mm ² / AWG2
Material & color	Aluminium, blue RAL 5012
Protection class	IP20
Weight	4,2 kg
Dimensions (h x w x d)	350 x 160 x 135 mm
Mounting	Vertical wall mount Indoor only
Safety	EN60335-1
EMC	EN61000-6-1, EN61000-6-3