

MPPT Solar Charger Datasheet

October 15, 2018

Absolute Maximum Ratings

<i>Parameter</i>	<i>max</i>	<i>unit</i>
Input voltage	22	V
Output voltage	15	V
Input current from panel	7	A
Output current to battery	7	A
Power output current, per output	20	A
Power output current, total	40	A

Recommended Operating Conditions

<i>Parameter</i>	<i>min</i>	<i>typ</i>	<i>max</i>	<i>unit</i>
Panel voltage		16	21	V
Battery voltage	10	12.5	14	V
Input current			5.8	A
Output current			5.8	A
Power output current, per output			10	A
Power output current, total			20	A
Fan output current			500	mA
USB charging current, per port			2.5	A
USB charging current, total			4	A

Performance Characteristics

<i>Parameter</i>	<i>min</i>	<i>typ</i>	<i>max</i>	<i>unit</i>	<i>remarks</i>
Switching frequency		192.5		kHz	
Switching efficiency	94	96		%	from 1 to 75 Watts output
Operating current		10		mA	All sub-systems on, no flash write operation in progress
Sleep current		200		uA	12.5V battery voltage
Temperature measurement resolution		12		bit	
Voltage measurement resolution		16		bit	
Current measurement resolution		16		bit	