BlueSolar PWM-Light charge controllers

BlueSolar PWM-Light 10 A

Features

- Load output with low battery voltage disconnect function.
- Lighting control function, one timer only.
- Two digit seven segment display for quick and easy setting of the load output functionality, including timer setting.
- Three stage battery charging (bulk, absorption, float), not programmable.
- Load output protected against over load and short circuit.
- Protected against reverse polarity connection of the solar array and/or battery.

Day/night timing options
See manual for details

Blue Solar PWM-Light	12/24-5	12/24-10	12/24-20	12/24-30
Battery Voltage	12/24V with automatic system voltage detection			
Rated charge current	5 A	10 A	20 A	30 A
Automatic load disconnect	Yes			
Maximum solar voltage	28 V / 55 V (1)			
Self-consumption	< 10 mA			
Load output	Manual control + low voltage disconnect			
Protection	Battery reverse polarity (fuse) Output short circuit Over temperature			
Overload protection	Shut down after 60 s in case of 130% load			
	Shut down after 5 s in case of 160% load			
	Short circuit: immediate shut down			
Grounding	Common positive			
Operating temp. range	-20 to +50°C (full load)			
Humidity (non condensing)	Max 95 %			
BATTERY				
Charge voltage 'absorption'	14.2 V / 28,4 V			
Charge voltage 'float'	13.8 V / 27,6 V			
Low voltage load disconnect	11,2 V / 22,4 V			
Low voltage load reconnect	12,6 V / 25,2 V (manual) 13,1 V / 26,2 V (automatic)			
ENCLOSURE				
Protection class	IP20			
Terminal size	5 mm² / AWG10			
Weight	0,15 kg		0,2 kg	
Dimensions (h x w x d)	70 x 133 x 33,5 mm (2.8 x 5.3 x 1.3 inch)			
STANDARDS				
Safety	IEC 62109-1			
EMC	EN 61000-6-1, EN 61000-6-3, ISO 7637-2			

1) For 12V use 36 cell solar panels
For 24V use 72 cell solar panels
or 2x 36 cell in series

2) The controller switches to the lower float voltage level 2 hours after the absorption voltage has been reached. Whenever the battery voltage becomes lower than 13 V, a new charge cycle is triggered.