

# BlueSolar PWM Charge Controller-LCD&USB 12/24V & 48V

### Liquid crystal display

For status monitoring and set-up

### Load output

Over-discharge of the battery can be prevented by connecting all loads to the load output. The load output will disconnect the load when the battery has been discharged to a pre-set voltage.

Some loads (especially inverters) can best be connected directly to the battery, and the inverter remote control connected to the load output. A special interface cable may be needed, please see the manual. The connect and disconnect voltages are adjustable.

### Day/night timing of the load output

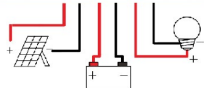
This option allows for a pre-set ON-time after dusk.

### Programmable battery charge algorithm

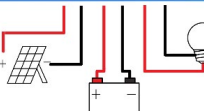
Preprogrammed algorithms for AGM, GEL, Flooded or LiFePO4 batteries (with internal BMS only)

### Two 5 Volt USB outputs

Maximum current (both outputs combined): 2A



BlueSolar Charge Controllers  
LCD&USB 12/24-5/10/20



BlueSolar Charge Controllers  
LCD&USB 12/24-30 & 48-10/20/30

BlueSolar PWM Charge Controller	12/24-5	12/24-10	12/24-20	12/24-30	48-10	48-20	48-30
Battery Voltage	12/24 V with automatic system voltage detection				48V		
Rated charge current	5A	10A	20A	30A	10A	20A	30A
Automatic load disconnect	Yes						
Maximum solar voltage	28V / 55V (1)				100V (1)		
Self-consumption	< 10 mA						
Load output	Manual control + low voltage disconnect +timer						
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	-35 to +60°C (full load)						
Humidity (non-condensing)	Max 95%						
<b>BATTERY</b>							
Charge voltage 'absorption'	Factory setting: 14,4V / 28,8V				Factory setting: 57,6V		
Charge voltage 'float' (2)	Factory setting: 13,7V / 27,4V				Factory setting: 54,8V		
Low voltage load disconnect	Factory setting: 11,2V / 22,4V				Factory setting: 44,8V		
Low voltage load reconnect	Factory setting: 12,6V / 25,2V				Factory setting: 50,4V		
<b>USB</b>							
Voltage	5V						
Current	2A (total from 2 outputs)						
<b>ENCLOSURE</b>							
Protection class	IP20						
Terminal size	6 mm <sup>2</sup> / AWG10			16mm <sup>2</sup> / AWG6			
Weight	0,15kg			0,3kg			
Dimensions (h x w x d)	96 x 169 x 36 mm (3.8 x 6.7 x 1.4 inch)			101x184x47mm (4.0 x 7.4 x 1.8 inch)			
<b>STANDARDS</b>							
Safety	EN60335-1, 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 For 48V use 2x 72 cell solar panels or 4x 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 13V, a new charge cycle is triggered.			