

BLUESOLAR PWM

Three models: 5A, 10A or 20A at 12V or 24V *



Regulador Solar PWM Victron Energy BlueSolar



Regulador Victron BlueSolar PWM DUO



Display Regulador Solar Victron BlueSolar DUO



Regulador Solar Victron BlueSolar PWM 48V



Regulador Solar Victron BlueSolar PWM Pro

Low cost PWM controller

- Internal temperature sensor
- Three stage battery charging (bulk, absorption, float)
- Protected against over current
- Protected against short circuit
- Protected against reverse polarity connection of the solar panels and/or

battery

- With low voltage load disconnect output
- Optional remote display (20A model only)

PWM LIGHT SPECIFICATIONS

BlueSolar 12/24- 12/24- 12/24- 12/24-
PWM-Light 5 10 20 30

Battery voltage	12/24 V, with automatic system voltage detection			
Rated charge current	5 A	10 A	20 A	30 A
Automatic load disconnect	Yes			
Maximum solar voltage	28 / 55 V (Use 36 cell solar panels for 12 volts, 72 cell solar panels for 24 volts)			
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 / 28,4 V			
Charge voltage "float"	13,8 / 27,6 V			
Low voltage disconnect	11,2 / 22,4 V			
Low voltage load reconnect	12,6 / 25,2 V (manual) 13,1 / 26,2 (automatic)			
Enclosure				
Protection class	IP20			
Terminal size	5 mm ² / AWG 10			
Weight	0,15 Kgr.	0,2 Kgr.		
Dimensions (h x w x d)	70 x 133 x 33,5 mm			
Standards				
Security	IEC 62109-1			
EMC	EN 61000-6-1, EN 61000-6-3			

PWM LIGHT 48V SPECIFICATIONS

BlueSolar 48-10 48-20 48-30
PWM-Light
48V

Battery voltage	48 V
Rated charge current	10 A 20 A 30 A
Automatic load disconnect	Yes
Maximum solar voltage	100 V
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 "Bulk"	58,0 V
Charge voltage "absorption"	56,8 V
Charge voltage "float"	55,2 V
Low voltage disconnect	44,8 V
Low voltage load reconnect	50,4 V (manual) 52,4 V (automatic)

Enclosure

Protection class	IP20
Terminal size	6 mm2 / AWG 10
Weight	0,17 Kgr.
Dimensions (h x w x d)	95 x 140 x 33,5 mm

Standards

Security	IEC 62109-1
EMC	EN 61000-6-1, EN 61000-6-3

PWM PRO SPECIFICATIONS

BlueSolar 12/24- PWM-Pro 5 10 20 30

Battery voltage	12/24 V, with automatic system voltage detection
Rated charge current	5 A 10 A 20 A 30 A
Automatic load disconnect	Yes
Maximum solar voltage	28 / 55 V (Use 36 cell solar panels for 12 volts, 72 cell solar panels for 24 volts)
Self-consumption	< 10 mA

Load output	Manual control + low voltage disconnect
Protection	Battery reverse polarity (fuse) Output short circuit Over temperature
Battery temperature sensor	Optional (article SCC940100100)
Temperature compensation	-30 mV/°C resp. -60 mV/°C (if temperature sensor installed)
Remote panel	Optional (article SCC900300000)
Grounding	Common positive
Operating temp. range	-20 to 50 °C (full load)
Humidity (non-condensing)	Max. 98 %
Battery	
Charge voltage "absorption"	14,4 / 28,8 V
Charge voltage "float"	13,8 / 27,6 V
Equalization voltage	14,6 / 29,2 V
Low voltage load disconnect	12,6 / 25,2 V
Low voltage load reconnect	13,1 / 26,2 V
Enclosure	
Protection class	IP30
Terminal size	4 mm ² 4 mm ² 10 mm ² 10 mm ²
Weight	0,13 Kgr. 0,3 Kg 0,5 Kg
Dimensions (h x w x d)	138 x 70 x 37 mm 160 x 82 x 48 mm 200 x 100 x 57 mm
Standards	
Security	IEC 62109-1
EMC	EN 61000-6-1, EN 61000-6-3

PWM LCD & USB SPECIFICATIONS

BlueSolar PWM LCD & USB	12/24-5	12/24-10	12/24-20	12/24-30	48-10	48-20	48-30
Battery Voltage	12/24v. with automatic system voltage detection					48 V	
Rated charge current	5 A	10 A	20 A	30 A	10 A	20 A	30 A
Automatic load disconnect	Yes						
Maximum solar voltage	28 / 55 V (1)					100 V (1)	
Self-consumption	< 10 mA						
Load output	Manual control + low voltage disconnect + timer						
Protection	Battery reverse polarity (fuse) Output short circuit Timer						
Overload protection	Shut down after 60 sec in case of 130 % load Shut down load after 5 sec in case of 160 % load Short circuit: immediate shut down						
Grounding	Common positive						
Operating temperature gante	-35 to 60 °C (full load)						
Humidity (non-condensing)	Max. 98 %						

Battery

Charge voltage "absorption"	14,4 / 28,8 V	57,6 V
Charge voltage "float" (2)	13,7 / 27,4 V	54,8 V
Low voltage load disconnect	11,2 / 22,4 V	44,8 V
Low voltage load reconnect	12,6 / 25, 2V	50,4 V

USB

Voltage	5 V	
Current	2 A (total from 2 outputs)	

Enclosure

Protection class	IP20	
Terminal size	6 mm ² / AWG 10	16 mm ² / AWG 6
Weight	0,15 Kg	0,3 Kg
Dimensions (h x w x d)	96 x 169 x 36 mm	101 x 184 x 47 mm

Standards

Safety	EN60335 - 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.

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