

## DUAL BATTERY MPPT CHARGE CONTROLLER

### PV CHARGE REGULATORS

APP  
WRM Monitor 



MPPT technology with buck-boost circuit



Max module power:  
- 250 W for 12 V battery  
- 500 W for 24 V battery



18 programs to manage the load



12 V / 24 V battery auto-detect voltage



Bluetooth remote control application



Temperature-compensated charge voltage



USB port to charge mobile devices



Internal blocking diode



Protections:  
- Low battery load-disconnect  
- Over-temperature  
- Battery polarity inversion  
- Output overload protection



Pb-lead acid, Pb-AGM, Pb-gel batteries and Lithium batteries



IP20 metal box

Il **WRM15 dualB** è un regolatore MPPT da modulo fotovoltaico, da 15A, per la carica di due batterie, una primaria e quindi prioritaria e l'altra secondaria.

Il regolatore è controllato attraverso una applicazione Android o iOS che si collega al regolatore attraverso una connessione Bluetooth.

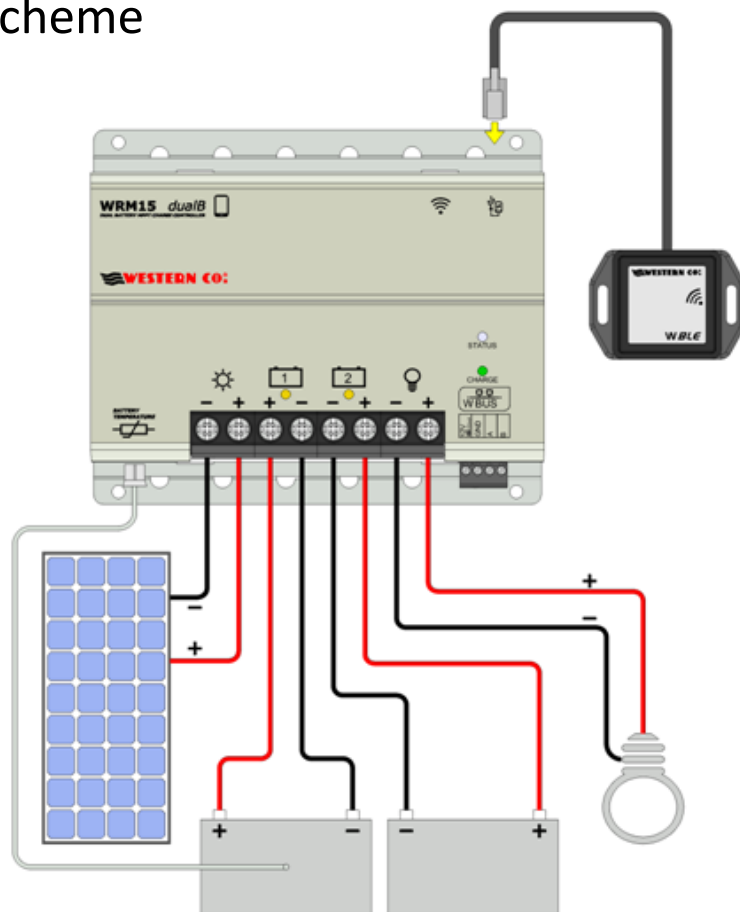
Sul regolatore è inoltre presente una porta USB che può essere usata per caricare la batteria di uno smartphone, tablet o power bank.

*WRM15 dualB is a 15 A MPPT charge controller for PV applications with automatic charge management of two batteries, one primary and one secondary. The device uses the Bluetooth interface to connect with Android and iOS mobile devices using the dedicated APP.*

*The USB output port can be used to charge directly smartphones, tablets or a power bank.*

		Nominal battery voltage 12V			Nominal battery voltage 24V		
		Min	Typ	Max	Min	Typ	Max
Battery voltage	Vbatt	10V		17V	20V		34V
Open circuit module voltage	Vpan	20V	-	100V	40V	-	100V
Module voltage	ipan	-	-	15A	-	-	15A
Maximum module power	Pmax	-	-	250W	-	-	500W
Load output voltage	Vload	-	Battery voltage	-	-	Battery voltage	-
Load voltage	Iload	-	-	15A	-	-	15A
Charging voltage at 25 ° C SEAL program (default)	Vch		14.4V			28.8V	
Charging voltage at 25 ° C program FLOOD	Vch		14.8V			29.6V	
Charging voltage at 25 ° C program LEO	Vch		14.4V			28.8V	
Charging voltage for Li program (*)	Vch	14.0V	-	14.7V	28.0V	-	29.4V
Vch as function of battery temperature (Tbatt)	Vtadj	-	-24mV / ° C	-	-	-48mV / ° C	-
Low battery voltage (adjustable)	Vlb	10.8V	11.4V (default)	12.2V	21.6V	22.8V (default)	24.4V
Low battery output voltage	Vout_lb	12.4V	13.8V	13.8V	24.8V	27.6V	27.6V
Detection voltage during the day (adjustable)	Vday	2.4V	4.8V (default)	9.6V	4.8V	9.6V (default)	19.2V
Detection voltage: VNIGHT Vday = -0.8V	Vnight	1.6V	-	8.8V	4.0V	-	18.4V
Voltage for Float phase (Adjustable)	VFit at 25 ° C	13.2V	13.4V (default)	14.4V	26.4V	26.8V (default)	28.8V
Phase Absorption Time (Adjustable)	TAbsorption	1.0 h	3.0 h (default)	4.0 h	1.0 h	3.0 h (default)	4.0 h
Self-consumption	isleep		12.7mA (Vbat 14,0V)			17,7mA (Vbat 28,0V)	
Working temperature:	Tamb	-10°C		50 ° C	-10°C		50 ° C
Dissipated power	Pdiss			20 W			29 W
Section to terminals		1mm <sup>2</sup>		10mm <sup>2</sup>	1mm <sup>2</sup>		10mm <sup>2</sup>
Protection degree			IP20			IP20	
Weight		-	515 g	-	-	515 g	-

## Installation scheme



**WESTERN CO.**

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