WMarine10

DATASHEET

SOLAR MPPT CHARGE CONTROLLER

PV CHARGE
REGULATORS

APP
WRM Monitor



- **MPPT technology with buck-boost circuit**
- **Max module power:**
  - 120W for 12 V battery
  - 220 W for 24 V battery
- **18 programs to manage the load**
- **12 V / 24 V battery auto-detect voltage**
- **48 signs LCD graphic display user interface**
- **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 **WMarine10** è una soluzione completa per la realizzazione di impianti fotovoltaici ad isola, per alimentare sistemi per la ricarica di batterie all'interno dei camper e imbarcazioni. I vari programmi di gestione carico selezionabili rendono il WMarine10 la soluzione completa in molte applicazioni.

Il WMarine10 è in grado di far lavorare il modulo PV ad una tensione sia superiore che inferiore a quella della batteria e ciò consente di impiegare un modulo PV con tensione open circuit di 10V per la ricarica di batterie sia a 12V che a 24V.La tensione del modulo PV durante il funzionamento del circuito **MPPT** va da 5V a 30V sia con batterie a 12V che a 24V. Può essere configurato e funzionare per un determinato numero di ore per notte.

WMarine10 *is a complete solution to create PV stand alone systems, to supply the systems for the recharge of the batteries in camper vans and boats. Thanks to the various programs for the load management, WMarine10 is the suitable solution in many applications.*

WMarine10 can manage a PV module at both an higher and lower voltage of the battery and this allow to use a PV module with open circuit voltage at 10V to recharge the batteries both at 12V and at 24V. The voltage of the PV module when the ***MPPT*** *circuit is working is in a range between 5V and 30V both with batteries at 12V and at 24V and it can work for a specific number of hours.*

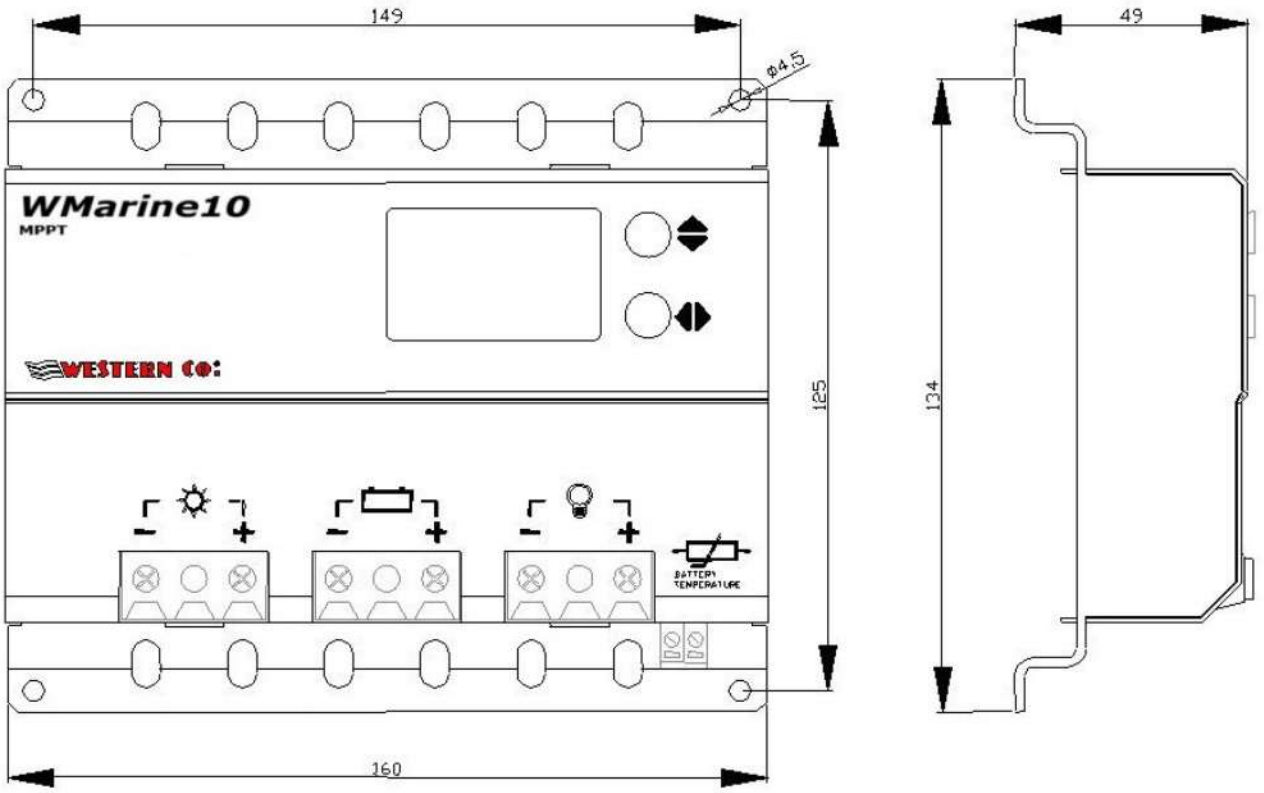
TECHNICAL SPECIFICATIONS

Electrical Features

WMarine10

		12V battery nominal voltage			24V battery nominal voltage		
		Min	Tip	Max	Min	Tip	Max
Battery voltage	Vbatt	10V		16V	20V		32V
Open circuit voltage of PV module	Vpan	5V	-	40V	5V	-	40V
Max PV module power	Pmax	-	-	120W	-	-	220W
Load output voltage	Vload	-	Battery voltage	-	-	Battery voltage	-
Load current	Iload	-	-	15A	-	-	15A
Charge voltage at 25°C - SEAL program (default)	Vch		14.4V			28.8V	
Charge voltage at 25°C - FLOOD program	Vch		14.8V			29.6V	
Charge voltage at 25°C – Li program(*)	Vch	14.0V	-	14.7V	28.0V	-	29.4V
Vch compensation according to battery temperature (Tbatt)	Vtadj	-	-24mV/°C	-	-	-48mV/°C	-
Low battery voltage (settable)	Vlb	10.8V	11.4V(default)	12.2V	21.6V	22.8V(default)	24.4V
Output voltage from low battery (settable)	Vout_lb	12.4V	13.8V(default)	13.8V	24.8V	27.6V(default)	27.6V
Solar modules threshold voltage for day detection (settable)	Vday	12.4V	13.8V(default)	13.8V	24.8V	27.6V(default)	27.6V
Solar modules threshold voltage for night detection: Vnight = Vday –1.3V	Vnight	0.6V	-	8.3V	0.6V	-	8.3V
Self consumption	Isleep		12.7mA (Vbat 14,0V)			17,7mA (Vbat 28,0V)	
Operating Temperature	Tamb	-10°C		40°C	-10°C		40°C
Dissipated power	Pdiss			20 W			29 W
Terminals section		1mm²		10mm²	1mm²		10mm²
IP protection degree			IP20			IP20	
Weight		-	515 g	-	-	515 g	-

Dimensions



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