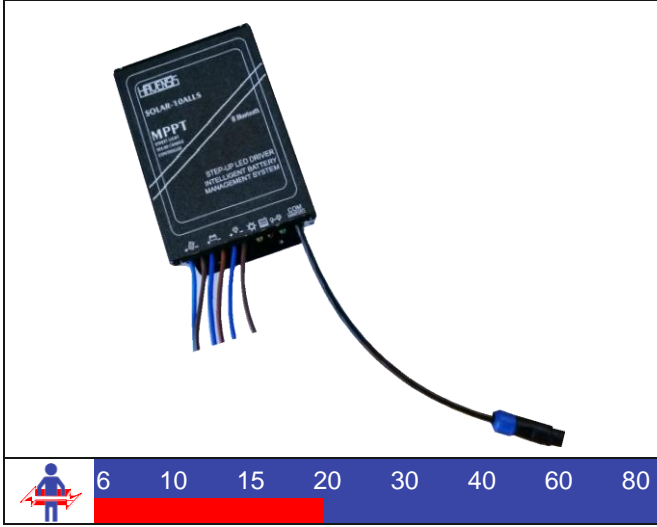


Havensis Solar MPPT Series

Solar-10-20ALLS

MPPT Solar Charge Controller



Havensis Solar MPPT Series, advanced charge controllers Fast Maximum Power Point thanks to MPPT technology Tracking (MPPT) with the power of the highest point at any time it holds.

Intelligent power for efficient use of energy stable operation in any case with point tracking algorithm it provides. Suitable for small and medium power systems. Same other functional features such as load output control in time hosts.

Features

- Advanced MPPT Technology
- High Efficiency MPP Tracking.
- Multi Phase Synchronous Buck Converter
- Fast Tracking MPP
- Auto Charging Current Limiting Function
- Backlight LCD
- Led Indicators
- 32bit ARM Risc Microcontroller
- Original Semiconductor switches
- Battery Type Selection (Gel, Sealed, Flooded and User)
- Data Logger
- Open Source Rs232 Communication
- Bluetooth Support and Wireless Control
- Integrated Led Driver (45-60W)

Application Areas

- Off-Grid Solar Systems
- Lighting Systems
- Home Application
- Automation Systems
- Telecom Solar Systems

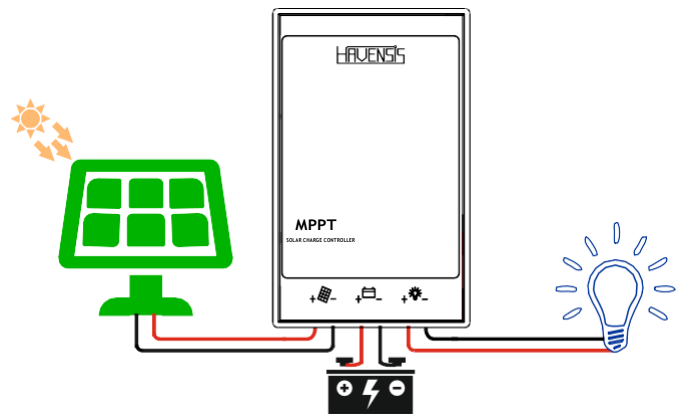


Electronic Protection Functions

- Fully Electronic Fuses
- Advanced Gradual Short Circuit Protection
- Gradual Over Load Current
- Solar Panel Reverse Polarity
- Battery Revers Polarity
- Battery High Voltage •
- Battery Low Voltage
- PV Reverse Current(Night)



Electrical Connections



Technical Details

MODEL	Solar-10ALLS		
Nominal System Voltage	12/24V Auto		
Nominal Charge Current	10A	20A	
Nominal Load Current	10A	20A	
Battery Voltage	9-32V DC		
Max. PV Input Voltage	<50V		
MPP Voltage Range	Battery Voltage +2VV		
Current Limiting Range	0. 20A Programmable		
Rated PV Power	240W		
Equalize Voltage	Gel: - Sealed: 14.6V Flooded: 14.8V All Parameters is Programmable (9-17V)		
Absorption Charge Voltage	Gel: 14.2V Sealed: 14.4V Flooded: 14.6V All Parameters is Programmable (9-17V)		
Float Charge Voltage	Gel: 13.6V Sealed: 13.7V Flooded: 13.8V All Parameters is Programmable (9-17V)		
Low Voltage Protect	11.1V Programmable (9-17V)		
Reconnect Voltage	12.5V Programmable (9-17V)		
Self Power Consumption	0,2W-0,75W		
Temperature Compensation	-20mV ^o C/12V (25 ^o C)		
LED Driver	1400mA	2800mA	
MPPT Tracking Efficiency	%99		
Short Circuit Protection	Load Current x 2		
Working Temperature	-20 ^o C +60 ^o C		
MSMPORT Interface	Rs232 (4 pin - JST - RJ45) Open Source Interface		
Dimensions			
Outer Dimensions(mm)	150.0mm x 112mm		
Mount Hole Range(mm)	140.0 x 90.0		
Socket Cable Cross Section	4mm ²		
Socket Screw Diameter			
Protection Class	Ip67		
Weight	0.4kg		

Technical specification for 12V systems. Double for 24V. Quadruple for 48V.

*When LCD backlight is off.