

MPPT Solar Charge Controller

A-SUN M Series

Models:

- A-SUN4415M, 45A, 12/24V/36V/48V auto work
- A-SUN6415M, 60A, 12/24V/36V/48V auto work

Features:

- High tracking efficiency $\geq 99.5\%$
- Advanced Maximum Power Point Tracking (MPPT) technology
- Ultra-fast tracking speed
- Peak conversion efficiency of 98% and full load efficiency of 97%
- Multiphase synchronous rectification technology(MSRT), ensuring high conversion efficiency even with weak power charging
- Reliable automatic PV current limiting function
- High-speed dual-core processor architecture, improving system response speed, optimizing system performance
- Accurately tracking and recognizing MPP among multiple wave crest
- Wide MPP operating voltage range
- Concise human-computer interactive interface, dynamically displaying system operating data and working status.
- RS485 port with industrial standard MODBUS open architecture
- Battery temperature compensation
- Battery type selection: Sealed, Gel, Flooded and User(programmable)
- Real-time data monitoring and parameters setting with MT50, APP or PC software
- Die-cast aluminum design, ensuring excellent heat dissipation
- Multiple load control modes: Manual Control, Light ON/OFF, Light on+timer and Time Control
- Widely used in solar telecom base station, solar home system, solar power station, etc.
- Built-in running data and event logging
- Support firmware upgrade

Electronic protections:

- Battery over charge protection
- Battery over discharge protection
- Battery reverse polarity protection
- Battery overheating protection
- Controller overheating protection

Technical specifications:

MODEL	A-SUN4415M	A-SUN6415M
Nominal system voltage	12/24/36/48VDC auto work	
Battery input voltage range	8 ~ 68V	
Rated charge current	45A	60A
Rated discharge current	45A	60A
Max. PV open circuit voltage	150V(at minimum operating environment temperature) 138V(at 25°C environment temperature)	
Rated PV input power	600W (12V)	800W (12V)
	1200W (24V)	1600W (24V)
	1800W (36V)	2400W (36V)
	2400W (48V)	3200W (48V)
Equalize charging voltage	Sealed: 14.6V , Flooded: 14.8V , User: 9~17V	
Boost charging voltage	Gel:14.2V , Sealed:14.4V , Flooded:14.6V , User: 9~17V	
Float charging voltage	Gel /Sealed /Flooded: 13.8V, User: 9~17V	
Low voltage reconnect voltage	Gel /Sealed /Flooded: 12.6V, User: 9~17V	
Low voltage disconnect voltage	Gel /Sealed /Flooded: 11.1V, User: 9~17V	
Self-consumption	1.4~2.6W	
Temperature compensation coefficient	-3mV/°C/2V	
Grounding	Common negative	
MECHANICAL	A-SUN4415M	A-SUN6415M
Terminals	2AWG(35mm ²)	2AWG(35mm ²)
Enclosure	IP20	
ENVIRONMENTAL		
LCD temperature range	-20°C ~ +70°C	
Working environment	-25°C ~ +45°C	
	≤95% (N.C.)	

- Technical data for 12V system at 25C°, twice in 24V system, triple in 36V system and quadruple in 48V system.
- Programmable voltage value PC , MT50 and APP.