

MPPT Solar Charge Controller

AM2420

AM2430

AM2440



Key Figures:

- ◆ 12/24V battery system auto recognition
- ◆ 100Voc max PV input voltage
- ◆ 20A / 30A / 40A max charge current
- ◆ 1.2KW max PV input power
- ◆ 300 days max data logging
- ◆ 0.3W max self power consumption

M series is a type of solar controller with advanced Maximum Power Point Tracking (MPPT) technology, mainly designed for small & medium size solar stand alone power systems. This series of controllers are typical type of MPPT controller, widely used all around the world.

Advanced Maximum Power Point Tracking (MPPT) Technology

- Fast MPPT start with ultra fast of sweeping of the entire V-I curve
- Smart MPPT algorithm ensures a better tracking in multiple power points
- High PV harvest performance in weak sunlight conditions
- Excellent peak efficiency exceeds 98%

High Quality & Functions

- No cooling fan: over rating size heating sink
- Over rating electronic components to minimize the power loss from heating
- Full charge power output up to 45°C
- Compensates battery charge voltages with use of temperature sensor
- LCD screen display: key operation for parameter settings
- Lead-acid AGM/GEL/Flooded & Lithium batteries supportable

Reliable Electronic Protections

- Advanced protections for battery charge & discharge
- Over-heating protection by power derating if temperature is high
- Allow max 25% exceeding rated power without controller damage
- Extensive protections including PV reverse polarity & reverse current protection

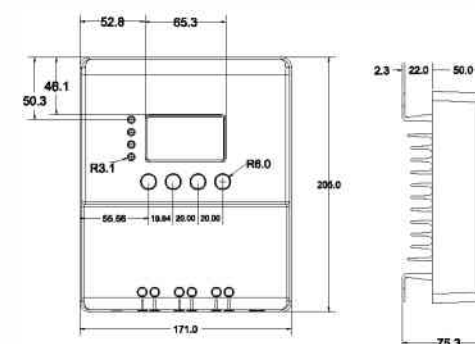
Extensive Device Functions

- RS485 port for Modbus communication
- Extra 20A DC load output control with various of load modes
- External Bluetooth module connection for APP operation
- External remote LCD display connection

Controller Parameter	Value		
Model No.	AM2420	AM2430	AM2440
Battery System Voltage	12V/24V Auto (FLD/GEL/SLD) Manual (Li/User)		
No-load Loss	12ma (12V), 10ma (24V)		
Max Solar Input Voltage	<100Voc		
Rated Solar Charge Current	20A	30A	40A
Max Solar Input Power	300W/12V:600W/24V	450W/12V:900W/24V	600W/12V:1200W/24V
Light Control Voltage	5V*n		
Light Control Delay Time	10s		
Max Load Output Current	20A		
Operating Temperature	-35°C ~ +45°C		
IP Protection	IP32		
Net Weight	1.0 kg	1.5 kg	1.5 kg
Communication Port	RS485		
Operating Altitude	≤ 3000 meters		
Controller Dimension	179.3*150.3*70 mm	205*170*75.3 mm	205*170*75.3 mm

Battery Voltages	Battery Parameters				
Battery Types	FLD	SEL	GEL(default)	USER (adjustable)	LI (adjustable)
Equalize Charge Voltage	14.8V*n	14.6V*n	-	Default	-
Boost Charge Voltage	14.6V*n	14.4V*n	14.2V*n	Default: GEL	Default: 14.2V*n
Float Charge Voltage	-	13.8V*n	-	Default: GEL	-
Boost Charge Recovery Voltage	-	13.2V*n	-	Default: GEL	-
Over-discharge Recovery Voltage	-	12.6V*n	-	Default: GEL	-
Over-discharge Voltage	-	11.1V*n	-	Default: GEL	Default: 11.1V*n
Auto Temperature Compensation	-3mV/2V/°C		-	Default: GEL	-

Accessory List	Package Status
External Temperature Sensor	Yes
Remote LCD Meter	Optional
Bluetooth Module	Optional
Installation Guidance Paper	Yes
User Manual	Yes



Accessories



App



PV Charge Pro