

MPPT Solar Charge Controller

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AM2440N

Negative Grounded Model

Key Figures:

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



AM2440N is a solar controller with advanced Maximum Power Point Tracking (MPPT) technology, mainly used in small & medium size solar stand alone power systems up to 1.2KW. Additionally, it's a negative grounded model, meets the electrical wiring standard that is widely required in solar power system in North America.

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

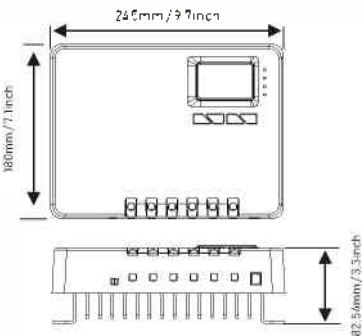
Extensive Device Functions

- 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.	AM2440N
System Wiring Grounded	Negative Grounded
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	40A
Max Solar Input Power	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	2.0 kg
Communication Port	RS485
Operating Altitude	≤ 3000 meters
Controller Dimension	245*180*82.5 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

