

MPPT Solar Charge Controller

BT-APP / Negative Grounded

M series

M2420N/M2430N/M2440N



Product Features

- Advanced MPPT scanning technology & effective temperature management, ensuring efficient, reliable and lasting solar DC charge.
- Oversize heating sink design, along with PCBA glued with polyurethane & silicon mixture, for better system cooling and waterproof, to improve solar charge efficiency.
- External Bluetooth communication module allowed to be connected in, for APP monitoring and operation in mobile phone.
- Supports multiple modes of DC load output control. “DC load short circuit protection” allowed to be canceled manually; “Equalize charge” allowed to be enforced manually.



Full-range protection



Overcharge Protection



Over-discharge Protection



Short-circuit Protection



Reverse Protection



Overheat Protection



Overload Protection

Product dimension	Accessory	APP
 M2420N Model M2430N & M2440N Model		 Charge Pro 2.0

Controller Parameter	Value		
Model No.	M2420N	M2430N	M2440N
System Wiring	Negative Grounded		
Battery System Voltage	12V/24V Auto (FLD/GEL/SEL/USE) Manual (Li/USE)		
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	1.21kg	2.02kg	2.02kg
Communication Port	RS485+Bluetooth (APP)		
Operating Altitude	≤ 3000 m		
Controller Dimension	180*140*71.1mm	245*180*82.5mm	245*180*82.5mm

Battery Voltages	Battery Parameters				
Battery Types	FLD	SEL	GEL (default)	USE (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	Yes/Inbuilt
Parallel Charge Use Cable	Optional
Installation Guidance Paper	Yes
User Manual	Yes