



Product Features

- Negative grounded design, supports 12V/24V battery system, with 30A & 40A models available.
- Oversize heating sink, along with optimized structure and effective temperature management, ensuring device reliability in high current charge.
- In-built Bluetooth communication module, for APP monitoring and operation in mobile phone.
- Extra USB output of 5V 1A.
- 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	Application	

Controller Parameter	Value	
Model No.	P2430N	P2440N
System Wiring	Negative Grounded	
Battery System Voltage	12V/24V Auto (FLD/GEL/SEL) Manual (Li/USE)	
No-load Loss	8mA/12V;12mA/24V	
Max Solar Input Voltage	<55Voc	
Rated Solar Charge Current	30A	40A
Max Solar Input Power	450W/12V;900W/24V	600W/12V;1200W/24V
Light Control Voltage	5V*n	
Light Control Delay Time	10s	
Max Load Output Current	30A	40A
USB Output	5V 1A	
Operating Temperature	-35°C ~ +45°C	
IP Protection	IP32	
Net Weight	0.65kg	
Communication	Built-in Bluetooth Module	
Operating Altitude	≤ 3000 m	
Controller Dimension	159*110*59mm	

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
Accessory List	Package Status				
User Manual	Yes				