# **PowerCol**









#### **PWM-Solar Charger Controller**

#### **Product Description »**

POWERCOM LUMIAX Max 48V-Series 30A/40A/50A/60A,GLCD display 48V Fixed **PWM Intelligent Solar Charge Controller-**With your own a state of the art device which was developed according to the latest available technical standards.

#### **Product Features**»

- 1. Design for off-grid solar power system.
- 2. Applicable to different kinds of batteries.
- 3. Adopts intelligent technology based algorithm make sure maximum energy harvesting from sun to the solar module
- 4. Modular design with simple structure and easy maintenance.

make sure long lasting of batteries.

- 5. Automatic power control function for best battery charging profile (Four stages PWM charge way: fast, boost, equalization, float)
- 6. LCD display: Solar panel current, solar panel voltage, solar panel power, battery group voltage, charge current.
- 7. Perfect protection function: Solar reverse charge protection, Solar reverse connection protection, Battery reverse connection protection, Battery overcharge protection, Battery over current protection etc, thus the system has higher reliability.
- 8. Temperature sensor, make the temperature compensation more accurate.
- 9. Electromagnetic compatibility (EMC) design

#### **Application**

Solar Power for house, hospital, shop etc.







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#### **Technical Specifications**

System characteristic		Max3048	Max4048	Max5048	Max6048
System Type		48V Fixed			
Maximum Solar and		30A	40A	50A	60A
Load current					
Maximum Battery Voltage		80V			
Maximum PV Voltage		110V			
Idle Current		3mA			
Charge Algorithm		4 Stages: Fast Charge, Floating Charge, Absorption/Boost Charge and Equalizing			
		Charge			
Soft Start Time		≤10S			
Conversion Efficiency		96.5% ~ 97%			
PV Modules Utilization Rate		≥95%			
Float Voltage		51.7~58.0V, Default: 54.8V (25°C)			
Fast Voltage		56.0V (25°C)			
Boost Voltage		51.8~64.0V, Default: 58.0V (25°C)			
Equal Voltage		53.0~64.0V, Default: 59.2V (25°C)			
Day/Night Threshold		12.0 ~30V, Default: 12.0V			
Load Disconnect Voltage	SoC	20 ~70%, Default: 30%			
	Voltage	44.0 ~50.0V, Default: 44.4V			
Load reconnect Voltage	SoC	40 ~90%, Default: 50%			
	Voltage	47.2~53.2V, Default: 50.4V			
Battery Type		Liquid, Gel, AGM			
Load mode		Auto, Standard, Timer			
Light on delay		00:00 - 02:00 (Internal 5min) , Default: 00:00			
Light off delay		00:00 - 02:00 (Internal 5min), Default: 00:00			
Night time 1		00:00 - 09:00 (Internal 15min) , Default: 00:00			
Night time 2		00:00 - 09:00 (Internal 15min) , Default: 00:00			
Temperature compensation		-4.17mV/K per cell (Boost and Equal charge), -3.33 mV/K per cell (Float charge)			
Temp. Range during operation		-10°C ~ + 60° C			
Storage temperature		-25°C ~ + 80° C			
Relative humidity		10%~90% Non-condensation			
Case protection		IP32			

### Power Control & Management

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