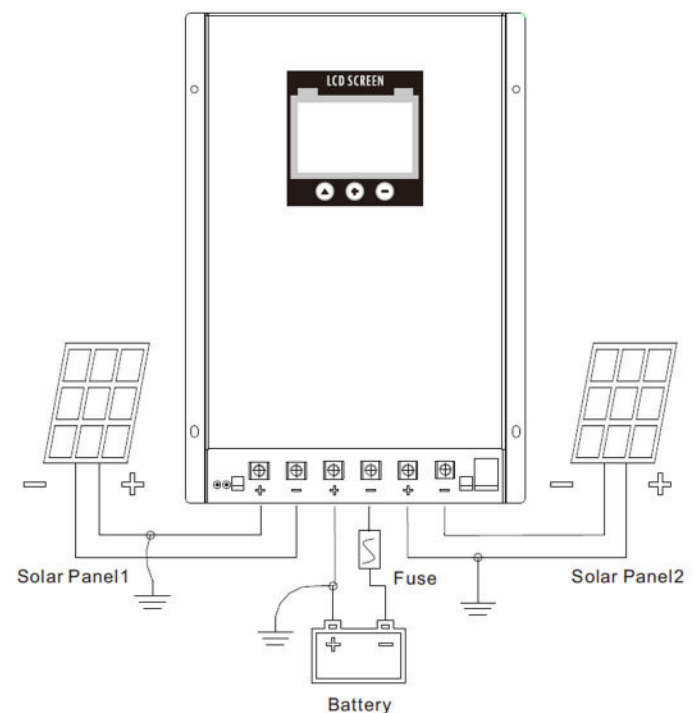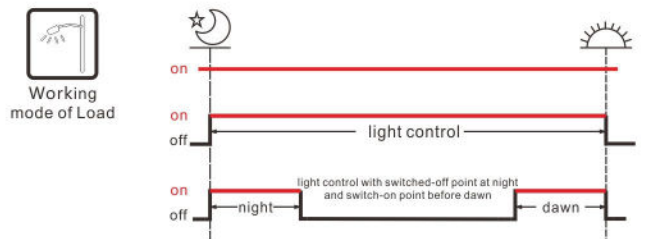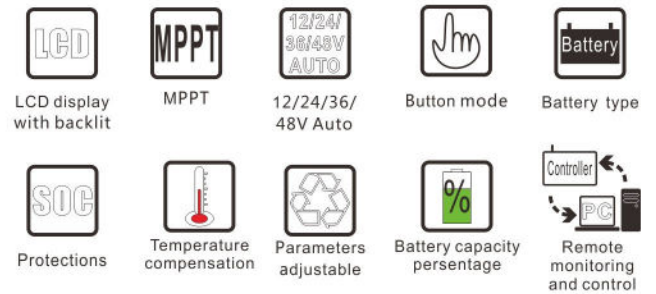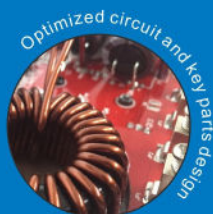# Maxima

MPPT series
60-90A

Features:

- DSP processors architecture ensure high speed and performance
- MPPT efficiency>99%, Peak conversion efficiency>98%
- 12V/24V/36V/48V auto work
- PV input:75V or 150Vmax
- Four-stages charging mode
- Battery type options: Sealed, Gel, Flooded and User
- LCD display
- RS485 port with industrial standard MODBUS open architecture
- Multiple load control modes

Electronic protections:

- Over charge protection
- Over discharge protection
- Over temperature and over load protection
- Automatic electronic fuse
- Short circuit protection of load and PV
- Input over voltage protection
- Reverse current protection at night
- Reverse connection protection of PV, load, and battery

Displays:

- Vivid LCD graphic symbols
  ---presents working status and related parameters explicitly

Optimized circuit and key parts design

Selection of quality materials

LCD — LCD display with backlit

MPPT — MPPT

12/24/36/48V AUTO — 12/24/36/48V Auto

Button mode

Battery — Battery type

SOC — Protections

Temperature compensation

Parameters adjustable

% — Battery capacity persentage

Controller / PC — Remote monitoring and control

Working mode of Load

light control

light control with switched-off point at night and switch-on point before dawn

night   dawn

LCD SCREEN

Solar Panel1   Fuse   Solar Panel2

Battery

MPPT introduction

MPPT means maximum power point tracking. MPPT technology is the technology to track the maximum power point of the solar panels.

Under a certain condition of temperature and light, the I-V curve of the solar panels is as the right chart. The output power of solar panel is product of I and V, which means rectangular area of the points on I-V curve for solar panels. See the right chart, when the solar panels work at point A, the output power is Pa=1+3; when solar panels work at point B, the output power is Pb=1+2. Obviously, we can see Pb>Pa. The purpose of MPPT technology is to keep the solar panels always working at point B when the outer conditions change.
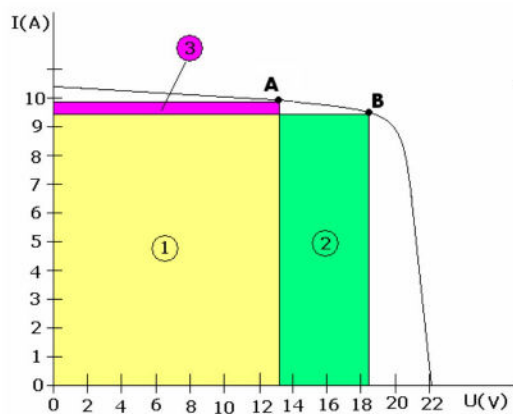
Technical Data

Model	MSCCMPPT60D		MSCCMPPT90D
Default Battery System Voltage	12V/24V/36V/48V DC (adjustable)		
CONTROLLER INPUT			
PV Maximum Open Circuit Voltage	150V		
PV Minimum Open Circuit Voltage	20V/40V/60V/80V		
BATTERY			
Equalization Voltage	14.6VDC/29.2VDC/43.8VDC/58.4VDC		
Absorption Voltage	14.4VDC/28.8VDC/43.2VDC/57.6VDC		
Float Voltage	13.8VDC/27.6VDC/41.4VDC/55.2VDC		
Low Voltage Protection Point	10.8VDC/21.6VDC/32.4VDC/43.2VDC		
DC OUTPUT			
Output Voltage	11.0-14.3VDC/22.0-28.6VDC/33-42.9VDC/44-57.4VDC		
Max Charging Current	60A		90A
Peak Conversion Effciency	98%(MPPT Efficiency 99%)		
Low Voltage Alarm	11.5VDC/23.0VDC/34.5VDC/46.0VDC		
Low Voltage Cutoff	10.5VDC/21.0VDC/31.5VDC/42.0VDC		
Low Voltage Recovery	12.6VDC/25.2VDC/37.8VDC/50.4VDC		
Charge Mode	MPPT,PWM,constant current-constant voltage,function of automatic protection for storage battery		
Radiating Mode	Automatic cooling		
Working Mode	Four stage:Bulk,Float,Absorption,Equalization		
DISPLAY & PROTECTION			
LCD Display	Charge voltage,Charge current,Battery voltage,Battery capacity,Output current		