

PRIME

INTEGRATED AIO
SOLAR STREET LIGHT



MPPT Charge
Controller



PRIME

INTEGRATED SOLAR STREET LIGHTS

PRIME all in one solar led street lights are brand new designed based on traditional AIO models, the fabulous change is the advantage that its battery box can be easily opened to replace or repair the battery which saves the complication of maintenance.

PRIME is offered with 3 years warranty to clients with high quality composed of brand new lifePO4 battery pack and high-efficiency charging efficiency MPPT charge controller as well the ultra-high brightness of Lumileds SMD chips. The reliable quality of components ensures the stability of the system greatly even in very challenging conditions.



Advantages

- Three years warranty.
- Easy Installation
- Fully integrated solar technology
- Top pole and wall option
- Light and resistant



Performance

- IP65, IK08
- Shelf life 25 years
- Presence sensor
- Lithium battery
- Aesthetic appearance

Main Feature



PIR Motion Sensor

PIR Motion Sensor with upto 10m wide range human body infrared rays detector - it gathers automatic convenient, safe energy saving,

MPPT Charge Controller

MPPT solar charge controller with PIR motion sensor is charging more than 30% power than regular PWM controller. Up to 98% high efficiency enable to make system fully charged everyday. IP68 waterproof and high-temp resistant.

Monocrystalline PV

- » Integrated high efficiency MONO Crystalline module
- » Higher performance at longer wavelengths of light (1100-1200 nm)
- » Superior temperature co-efficient and performance
- » Excellent performance at low light irradiation

Detachable Battery Pack

With a detachable solar battery pack, it is much easier to do the maintenance without unfixing the solar panel and led module. It just requires removing the screws of the battery box, saving more labor cost and easier.

Main Specification

Item number	AIO-50W	AIO-60W	AIO-80W	AIO-100W
Peak Luminous Flux	6,500lm	8,800lm	10,800lm	13,800lm
Peak LED Power	50W	60W	80W	100W
CRI	>79			
LED Type	Lumileds SMD3030 96pcs	Lumileds SMD3030 144pcs	Lumileds SMD3030 192pcs	Lumileds SMD3030 240pcs
LED Module Quantity	2 modules	3 modules	4 modules	5 modules
CCT Range	3000K / 4000K / 5000K / 6000K			
Beam Angle	Bat wing pattern with polarized light			
Battery Capacity	384WH 12.8V	460WH 12.8V	615WH 12.8V	768WH 25.6V
Battery Lifetime	D.O.D 50% 4000 cycles			
Charge & Discharge Time	4 hours & >24 hours			
Solar Panel	70W 18V	100W 18V	100W 18V	120W 36V
Working Temp.	20 °C ~ 75 °C			
Control Method	Automatic dusk to dawn			
Solar Charge Controller	MPPT with motion sensor by SRNE			
Default Lighting modes	12 hours 40% + 100% when sensor is triggered			
Motion Sensor	Mrowave / PIR optional			
Fixture Size	872*387*68mm	1122*387*68mm	1522*387*68mm	1522*387*68mm
Fixture materials	Aluminium Die Casting			
Fixture color	Silver / Gray RAL7005			
Mounting Diameter	76mm			
N.W/Light	14.80kg	16.70kg	18.30kg	22.80kg
G.W/Light	16.20kg	18.30kg	19.60kg	21.70kg
IP Rate	IP65			
Warranty	3 years			
Certificates	CB CE ROHS IP67 LM79 LM80 FCC			

MPPT Charge Controller



Model number	MES60 (for 50W & 60W)	MES120 (for 80W & 100W & 120W)
System voltage	12V	12V/24V
Output current range	50~3000mA	50~4200mA
Max. power of regular solar panel	130W/18V	130W/18V 260W/36V
MPPT tracking efficiency	98%	
Load output voltage	<60V	
Max load power	60W max	120W max
Overcharge voltage	14.6V	14.6V 29.2V
Overcharge recovery voltage	13.5V	13.5V 27.0V
Over-discharge voltage	11.0V	11.0V 22.0V
Over-discharge recovery voltage	12.4V	12.4V 24.8V
Light control voltage	7V	
Working Temp.	35 C ~ +65 C	
Net weight	260g	400g
Dimension(mm)	80*82*22.6mm	114*88.3*24.5mm
IP rate	IP68	
Warranty	3 Years	

Quality LifePO4 Battery Pack

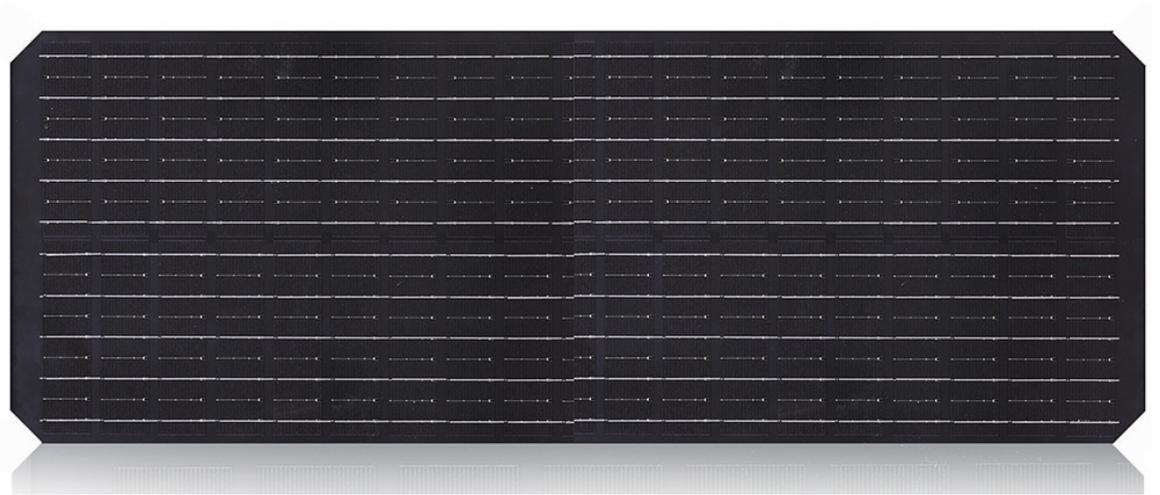


Main Features

- Lithium Iron Phosphate (LiFePO4) Battery
- Safest lithium chemistry with high energy density
 - Built-in automatic protections
- Efficient & long-lasting up to 4000+ cycles DOD 50%
 - Wide temperature range: -20°C ~ 70°C
 - Maintenance free after installation
 - Cost effective

Battery Spec	12830	12836	12848	12860
Battery cell type	LifePO4 6000mA 3.2V 32700			
Nominal Capacity	12.8V 30AH (384WH)	12.8V 36AH (480WH)	12.8V 48AH (615WH)	12.8V 60AH (768WH)
Quantity per pack	20 pieces	24 pieces	32 pieces	40 pieces
Array Mode	5P4S	6P4S	8P4S	10P4S
Dimension (L*W*H)	180*220*36mm	210*290*38mm	290*290*38mm	350*290*38mm
Charge mode	Constant Current + Constant Voltages			
Charge Cut-off voltage	14.6±0.05V			
Discharge Cut-off Voltage	11±0.05V			
Storage Temperature	5°C ~ 35°C			
Operating Temperature	-20°C ~ 65°C			
Lifetime (D.O.D. 50%)	4,000 cycles D.O.D 50%			
Warranty	3 Years			

Monocrystalline Solar Panel



Certifications

- IEC61215, IEC61730 •
- ISO9001:2015 Quality Management Systems •
- ISO45001 : Enbvironmental Management Systems •
- ISO45001:2018 Occupational Health and Safety Management System •

STC :  Light intensity 1000W/㎡  Battery temperature : 25 C  Asmosphere quality = 15

NOCT :  Light intensity 800W/㎡  Battery temperature : 20 C  Asmosphere quality = 15  Wind velocity 1m/s

Model number	MSD-60W	MSD-80W	MSD-100W	MSD-120W
Peak power / Pm(W)	18.0V	18.0V	18.0V	18.0V
Max. power voltage / Vmp(V)	3.12A	4.45A	5.56A	6.67A
Solar cells efficiency	>21.7%	22.3%	22.3%	22.3%
Dimensions(L*W*T)	820*335mm	1070*335*4mm	1300*335*4mm	1470*335*4mm
Grade of solar cells	A grade			
Operating temperature range	-40 °C - +85 °C			
Power output warranty:	10 years > 90%, 25 years > 80%			
Warranty	5 years			
IP rate	IP65			
Product Certifications / Standards	CE, ROHS ISO9001:2008, RoHSCE, IEC61215			



Zigbee System



Gateway (4G Sim Card inside)



Zigbee Module + Solar Controller

The zigbee control system is an integrated smart control system, the light control module is composed of two parts as solar controller and the signal module, These two parts are connected via the RS485 interface as the light control part. It communicates with the gateway with the Zigbee signal.

Comparison of Zigbee & 2G

Zigbee:

The bottom layer uses free wireless frequency communication, and the bottom layer data is transmitted to the Internet through a centralized gateway, so that one gateway can manage multiple street lights.

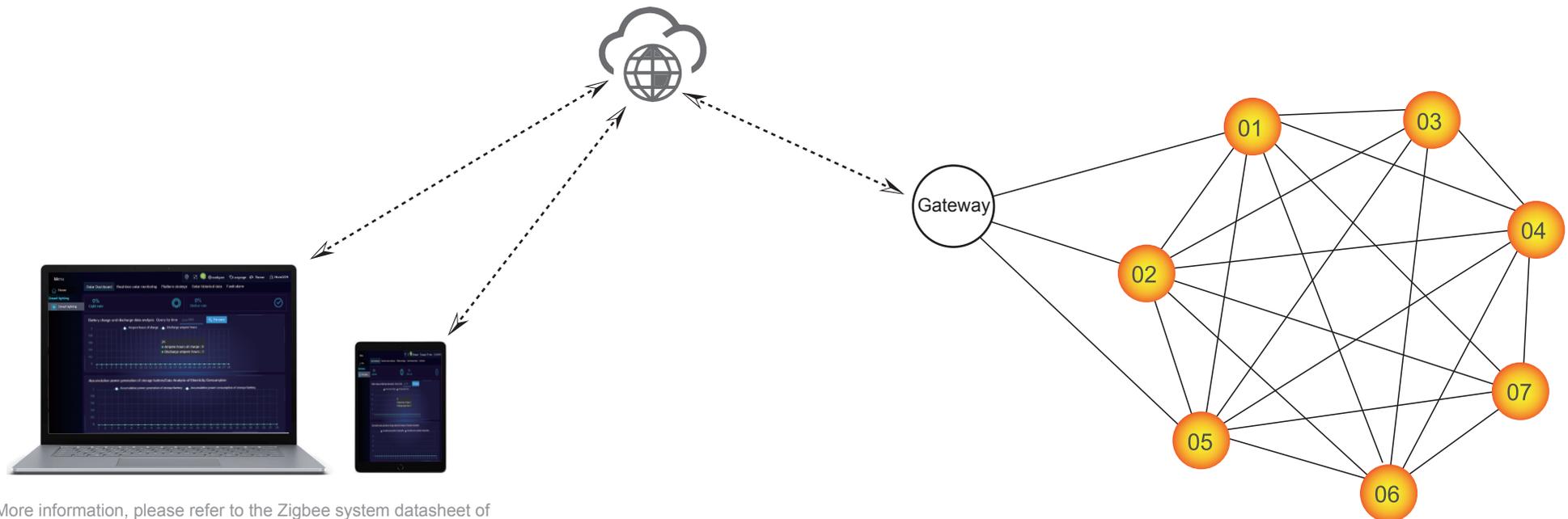
Advantages: when mass street lamps are used, the communication fee is relatively low.

2G/4G/GPRS/NB-IOT

The direct connection scheme is adopted, and there is no centralized manager, and the signal transmission is carried out through the base station of the mobile operator.

Advantages: The signal reliability and safety are relatively high, the construction is relatively simple, and there is no need to install a concentrator.

Disadvantages: The communication module and communication fees are relatively high.



More information, please refer to the Zigbee system datasheet of



THE ONLY QUALITY Governments Trust

As the most classic model of solar led street light, HERMES is accredited by government customers in many countries.

In Oct 2021, The Chinese Consulate General donates auroras's solar lights to the Iraq government in Erbil. 270 complete sets of Hermes solar street lights 80W are installed on the main road of Erbil city to light up the nights.



More Products



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