



Quality, Honesty, Service and Innovation



IA-SERIES

ALL IN ONE

SOLAR STREET LIGHT

UP TO **170 LM/W**

COURTYARD LIGHTING
SUPPORT 7*12HOURS UNDER RAINY DAYS



WATER
RESISTANT



CUSTOMIZABLE



SOLAR
ENERGY



SMART LIGHTING
CONTROL SYSTEM

EXPERTS WITH
PROFESSIONAL SOLUTION

WWW.AOKLEDLIGHT.COM



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IA(L)-SERIES

SPLIT MODE

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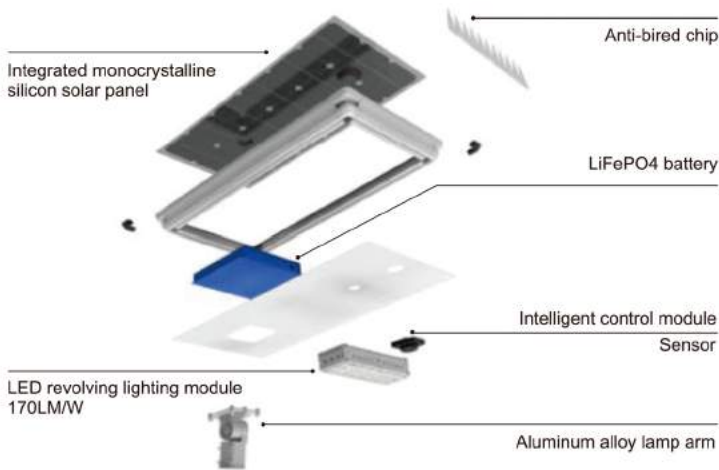
SMART LIGHTING CONTROL SYSTEM

EXPERTS WITH PROFESSIONAL SOLUTION

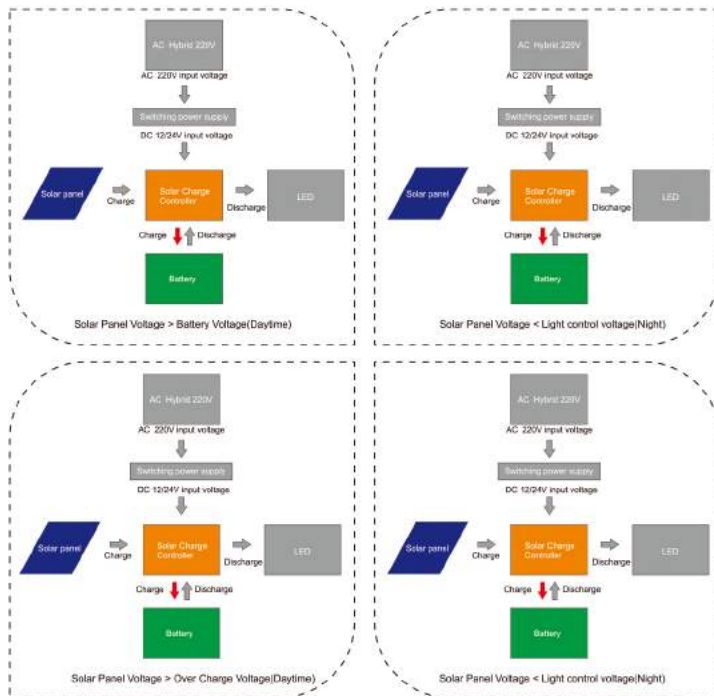
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CORE ADVANTAGES

AOK has rich experience in production and R&D of solar LED street light. Also has in-depth research in the LED Modules's high luminous efficiency, light distribution, in monocrystalline silicon solar panel PWM technology enhance charging efficiency, in low temperature charge and discharge of LiFeP04 battery and battery cycle lifespan and intelligent management control. We continue to apply and promote the latest technology, adhere to the balance between science and technology and nature, close to all aspects of user's needs, enhance the user's enjoyable experience and dedication to provide users with high-quality solar street lights and product services.



WORKING PRINCIPLE DIAGRAM



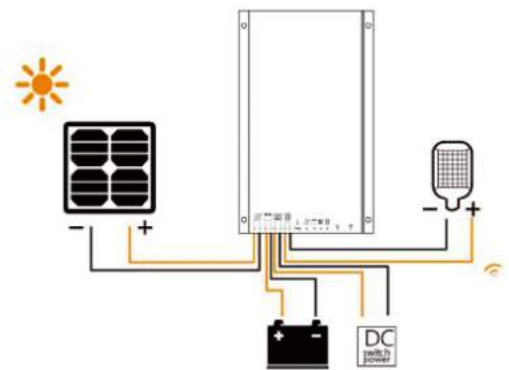
OPTIONAL FUNCTION

***AC/DC Hybrid Solar Street Light Controller System Solution**

Application Range:

AC/DC hybrid solar street light controller system solution is widely used in urban and rural road, highways, water dikes, bridges, parks, industrial areas, city squares, residential areas and other places of lighting. The system is mainly made of PV components, AC/DC hybrid solar street light controller, Battery, Switching power supply and LED ect. AC/DC hybrid solar street light controller system solution is the latest solution to solve the outdoor lighting problem with solar charging and AC/DC hybrid method. By adopting the technology of automatically switching the output of the battery and AC hybrid, the problem of excessive discharge of the battery and the lack of street light due to the continuous rainy days is solved. True constant current rather than current-limiting control ensures smooth and stable output current, effectively reducing LED light attenuation and extending LED service life. And you can easily and quickly adjust various parameters in the solar street light controller by using the assorted Infrared remote control.

PHYSICAL CONNECTION DIAGRAM



***Multiple lighting modes can be programmed remotely by Mobile Bluetooth APP
Solar Street light with inbuilt bluetooth for health monitoring with APP**



IOT MANAGMENT, INTELLIGENT LIGHTING

AOK perfectly combine traditional solar street lighting architecture+Internet of things + wireless communication technology perfectly, achieve monitoring and management of remote background data, real-time understand the normal working status of each component of solar energy (street lights, photovoltaic panels, batteries, controllers), allow you to know the end customer's product usage that is thousands of miles away without leaving home, or to manage the opening and closing of street lights and the adjustment of bright spot power in a timely manner.



**Remote monitoring
real time monitoring**

SL series with wireless communication function, Through the intelligent management system of solar street lamp and wireless module, have remote monitoring and real-time monitoring.



**Automatic fault
alarm**

Real time monitoring of solar panel voltage, current, power, battery charging and discharging current, voltage, load working state, controller working state data and fault automatic alarm.



Remote control

Support remote switch on and off dimmer and battery, load parameter modification.



**Fault tracking and
precise positioning**

Multi peak PWM technology, suitable for partial shading or partial damage of photovoltaic cells, and the tracking efficiency is more than 99%.

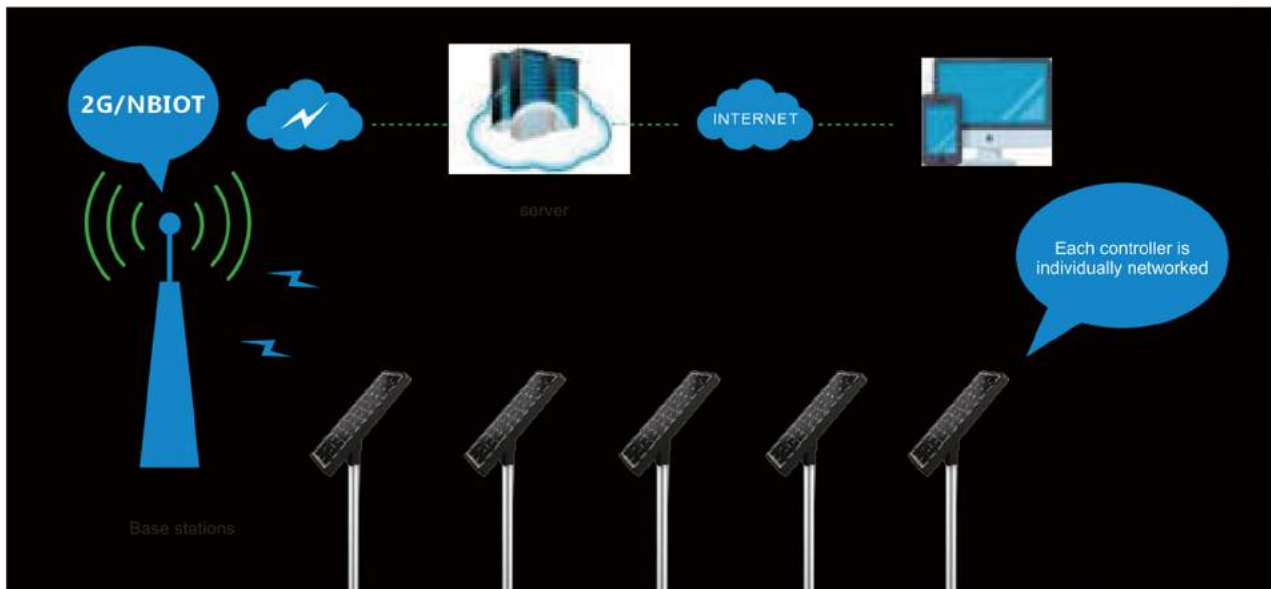


Map location

Using GIS maps, with geographic display capabilities.



The Internet of Things solar street light management system is mainly composed of a street light component+a centralized controller+a single light controller+a smart cloud platform. The centralized controller and the single light controller aggregate the data collected by the single light via the GPRS/NB-IOT wireless communication network. The centralized controller uploads data to the system cloud platform through GPRS data flow, providing data dependence for mobile phone and computer terminal access.

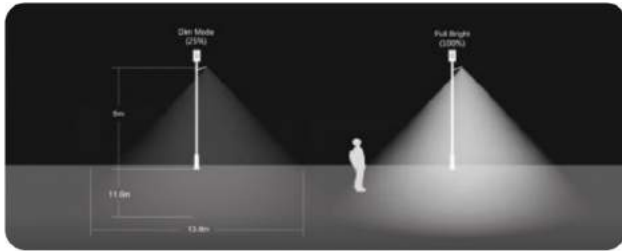


PERFORMANCE COMPARISON BETWEEN SMART IOT SOLAR LED STREET LIGHT AND TRADITIONAL STREET LIGHT

Solar led street light controller type	PWM+IOT controller	Instruction
Light decay detecting	✓	Automatic light decay detection and adjustment
Charging in rainy days	✓	PWM charge 3 rainy days is equivalent to a sunny day
Battery management	✓	Battery lifespan management
Remote monitoring	✓	Remotely monitor the status of each street light in real time
Optimize configuration	✓	Through data analysis, complete the optimal configuration of solar panels and batteries in different regions
Fault alarm	✓	Automatically detect system failures and alert to mobile phones or computers
Intelligent analysis	✓	Automatically collect the detailed data for per light at per night, and statistical report analysis
Artificial intelligence	✓	Big data collection and analysis through the system platform, complete the intelligent operation of street light and achieve stable lighting throughout the year

MOTION SENSOR

●It comes with motion detection system that automatically regular the light source from full bright(100%) to dim mode (25%) to increase battery automomy.



LIFEP04 BATTERY

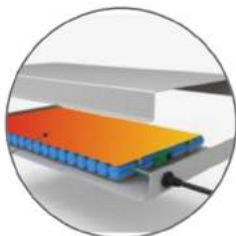
2000

times and above
LiFePO4 battery
cycle life



500-1000times
LiCoMnNiO2 battery
cycle Life

- AOK offer battery grade A1 level,the consistency is better and the quality is better.
- AOK series solar power street lamps, using high efficient LiFePO4 battery, high temperature performance, high current discharge, cycle life more than 2000 times.
- Intelligent temperature control:Monitor battery compartment temperature in real time to achieve intelligent temperature compensation.
- Equipped with ultra-low temperature battery protection system,enables street lights can work in extremely cold weather.



Intelligent temperature control

●The LiCoMnNiO2 battery on the market is not suitable for large current discharge, the high temperature performance is poor, there is a hidden danger of explosion, and the cycle life is 500-1000 times.

HIGH-EFFICIENCY SOLAR PANEL

- High Efficient Monocrystalline Module
- 18.5% photoelectric Conversion Efficiency
- More than 30% higher compare with polysilicon solar panel.
- Ending with 85% output in 20years
- 3.2mm tempered glass lamination for excellent mechanical load resistance.
- 25years lifespan



MULTI PURPOSE BRACKET



Slipper Fitter Round Pole adjustable arm



Slipper Fitter Square Pole adjustable arm



Square Pole direct arm



U shape Wall Installed arm

LED CHIP



LUXEON 5050

By choosing the luxeon LED chips, single lumen value at 170lm/W, with the aluminum lamp base and sealed lens, with its excellent heat dissipation, it is as if the LED chip has been placed in a sealed unit. Thus it maintains high brightness levels with very little fading. The sealed lenses are made of strong UV protected PC and are aging and shock resistant; The well optimized light distribution, makes for a more uniform and wider lighting area.

Philips Lumileds Luxeon 5050 chip creates a first-class light source

HIGH-LUMEN EFFICIENCY LED MODULE

Lumen efficiency > 170lm/W, achieve higher illumination



Adjustable Beam angle



High luminous efficiency



Long lifespan

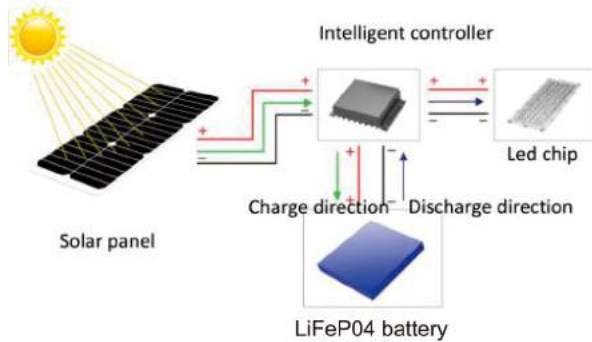


Less heat



Low light decay

WORKING WAY



Where there is light radiation, photovoltaic modules are converted to electric energy by solar radiation, and intelligent controller is used to charge electric energy into lithium iron phosphate battery. At the same time, the intelligent controller protects the overcharge and over discharge of the battery. The lighting switch and adjust lighting intelligent control, without manual operation.

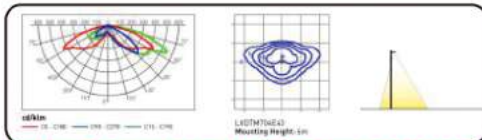
PHOTOMETRICS LUMINAIRE(I/IS/IL)

Planning and analyzing of street lights can be done by using lighting design software, which allows lighting simulations. It uses rendering, the process of generating an image from a model, by means of computer programs resulting in different tools for measuring the simulated light levels.

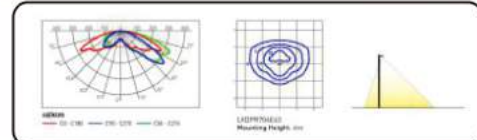


LIGHT DISTRIBUTION PATTERNS I.

Type 2 for street lighting, cycle paths and footpaths

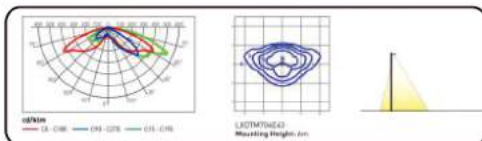


Type 3 for street light and car parks

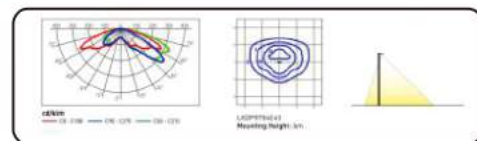


LIGHT DISTRIBUTION PATTERNS IP.

Type 2 for street lighting, cycle paths and footpaths

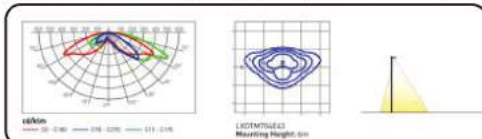


Type 3 for street light and car parks

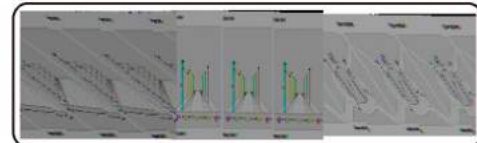
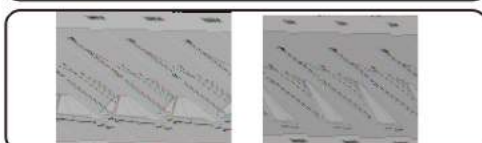
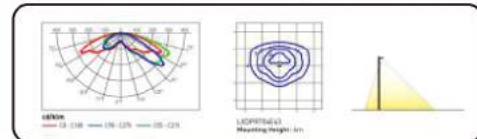


LIGHT DISTRIBUTION PATTERNS IS/IL

Type 2 for street lighting, cycle paths and footpaths



Type 3 for street light and car parks



IA ALL IN ONE



IA(P) ALL IN ONE



IA(S) SPLIT MODE



PROJECT DEMONSTRATION



IA(L) SPLIT MODE



HIGHER LUMEN

*Offer 3400LM, 5100LM, 6800LM, 10200LM, 3 different lumen value selection;

Model	Replace MHL	Lumen
IA(L) 20W	75W	3400LM (Equivalent to competing products 30-35W)
IA(L) 30W	125W	5100LM (Equivalent to competing products 90-120W)
IA(L) 40W	150W	6800LM (Equivalent to competing products 120-160W)
IA(L) 60W	225W	10200LM (Equivalent to competing products 180-240W)

PACKING INFORMATION-IA(L)

	IA(L) 20W	IA(L) 30W	IA(L) 40W	IA(L) 60W
Equivalent to competing products	60-80W	90-120W	120-160W	180-240W
LED luminous flux	3400 lm	5100 lm	6800 lm	10200 lm
Solar Panel Parameter /W	18V 100W	18V 100W	36V 200W	36V 200W
Battery /W (built-in lamp housing)	18AH 12.8V Lithium 230.4WH	24AH 12.8V Lithium 307.2WH	18AH 25.6V Lithium 460.8WH	24AH 25.6V Lithium 614.4WH
Smart Controller	365days ON 10A	365days ON 10A	365days ON 10A	365days ON 15A
Optical Lens	140*70	140*70	140*70	140*70
CCT	3500-6500K			
CRI	Ra>70/80			
Working Temperature	-20~60degree			
Material	Die-cast aluminium			
Intalling Height	5-7m	5-8m	6-9m	7-10m
Lamp Dimension (MM)	58*30*11	66*30*11	66*30*11	90*30*11
Packing 1pc/ctn	65*37*18	73*37*18	73*37*18	97*37*18

Solar energy applications like solar water irrigation system, solar advertising Billboard Lighting and Solar Kiosk and Shelter Lighting as following,welcome to check with us for your more customized applications.



HIGH LUMEN-IA(P)

Model	Replace MHL	Lumen
IA(P) 10W	35W	1700LM (Equivalent to competing products 15-20W)
IA(P) 15W	50W	2250LM (Equivalent to competing products 25-30W)
IA(P) 20W	75W	3400LM (Equivalent to competing products 30-35W)
IA(P) 25W	100W	4250LM (Equivalent to competing products 40-45W)
IA(P) 30W	125W	5100LM (Equivalent to competing products 50-55W)
IA(P) 40W	150W	6800LM (Equivalent to competing products 65-70W)
IA(P) 60W	225W	10200LM (Equivalent to competing products 120W)
IA(P) 80W	300W	13600LM (Equivalent to competing products 150W)
IA(P) 90W	338W	15300LM (Equivalent to competing products 170W)
IA(P) 120W	450W	20400LM (Equivalent to competing products 230W)

HIGH LUMEN-IA(S)

Model	Replace MHL	Lumen
IA(S) 15W	50W	2550LM (Equivalent to competing products 25-30W)
IA(S) 20W	75W	3400LM (Equivalent to competing products 30-35W)
IA(S) 30W	100W	5100LM (Equivalent to competing products 50-55W)
IA(S) 40W	125W	6800LM (Equivalent to competing products 65-70W)
IA(S) 50W	150W	8000LM (Equivalent to competing products 70-80W)
IA(S) 60W	200W	9300LM (Equivalent to competing products 85-95W)

PACKING INFORMATION-IA(P)

MODEL	Fixture(mm)	LED	Solar Panel	Battery	PIR Sensor	Light Distribution(I)	Light Distribution(IP)
IA(P) 10W	655*316*82	1700LM	18V 17W	154WH	YES	TYPE2 TYPE3	AU PS
IA(P) 15W	905*316*82	2550LM	18V 29W	154WH	YES	TYPE2 TYPE3	AU PS
IA(P) 20W	1045*316*82	3400LM	18V 35W	230WH	YES	TYPE2 TYPE3	AU PS
IA(P) 25W	1201*316*82	4250LM	18V 45W	230WH	YES	TYPE2 TYPE3	AU PS
IA(P) 30W	1295*316*82	5100LM	18V 60W	308WH	YES	TYPE2 TYPE3	AU PS
IA(P) 40W	1295*316*82	6800LM	18V 70W	308WH	YES	TYPE2 TYPE3	AU PS
IA(P) 60W	1010*530*240	10200LM	18V 90W	460WH	YES	TYPE2 TYPE3	AU PS
IA(P) 80W	1320*530*240	13600LM	18V 120W	615WH	YES	TYPE2 TYPE3	AU PS
IA(P) 90W	1630*530*240	15300LM	18V 150W	768WH	YES	TYPE2 TYPE3	AU PS
IA(P) 120W	1630*530*240	20400LM	18V 150W	922WH	YES	TYPE2 TYPE3	AU PS

PACKING INFORMATION-IA(S)

MODEL	IA(S) 15W	IA(S) 20W	IA(S) 30W	IA(S) 40W	IA(S) 50W	IA(S) 60W	
Equivalent to competing products	25W-30W	30W-35W	50W-55W	65W-70W	70W-80W	85W-95W	
LED(luminous flux)	2550lm	3400lm	5100lm	6800lm	8000lm	9300lm	
Solar Panel(Parameter /W)	18V 55W	18V 65W	18V 85W	18V 110W	36V 165W	36V 210W	
Solar Panel(Dimen sion(MM))	685*515	685*515	758*670	1016*670	1480*670	1335*986	
Battery /WH (built-in lamp housing)	Lithium 230.4WH	Lithium 307.2WH	Lithium 384WH	Lithium 460.8WH	Lithium 614.4WH	Lithium 921.6WH	
Smart Controller	365days ON	365days ON	365days ON	365days ON	365days ON	365days ON	
Optical Lens	Typell,III,p5,120°	Typell,III,p5,120°	Typell,III,p5,120°	Typell,III,p5,120°	Typell,III,p5,120°	Typell,III,p5,120°	
Lamp Dimension (MM)	575*360*82	575*360*82	695*360*82	695*360*82	768*360*82	908*360*82	
Packing 1pc/ctn	Lamp carton(CM)	50*45*15	50*45*15	62*45*15	62*45*15	70*45*15	83*45*15
	Lamp N.W.(KG)	7.10	7.70	10.50	11.00	12.60	15.60
	Lamp G.W.(KG)	8.10	8.70	12.00	12.50	14.60	17.60
	Solar panel carton (CM)	75*58*11	86*57*11	82*73*11	108*73*11	154*73*11	140*105*11
	Solar panel N.W.(KG)	3.8	4.5	5.2	7.1	10.4	13.1
	Solar panel G.W.(KG)	5.3	6.0	7.2	9.1	13.4	16.1
	Bracket carton (CM)	39*17*14	39*17*14	75*17*14	75*17*14	75*17*14	113*17*14
	Bracket N.W.(KG)	3.3	3.3	4.4	4.4	4.4	5.7
Bracket G.W.(KG)	4.3	4.3	5.4	5.4	5.4	7.0	