

MAGSOL AIOS RANGE



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LIGHTING INDUSTRIES

Integrated Solar Street Light





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Introduction Integrated Solar Street Light

Hello **Simplicity!**

Meet the MagSol AIOS – our all-in-one integrated solar street light designed to power smarter, greener projects. This advanced solution combines all core components into a single, streamlined unit for quick installation, dependable performance, and lasting efficiency.

Built for scale and engineered for value, the MagSol AIOS is ideal for large developments where quality and budget go hand in hand. Its built-in motion sensor intelligently manages energy use, maximising savings without compromising light output.

With the MagSol AIOS, you're not just lighting the way — you're giving your projects a competitive edge while supporting a more sustainable future.



Fit-For-Purpose:



Roads



Parks &
Gardens



Campsites



Off Grid
Locations



Pedestrian
Areas



Pathways





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LED Modules

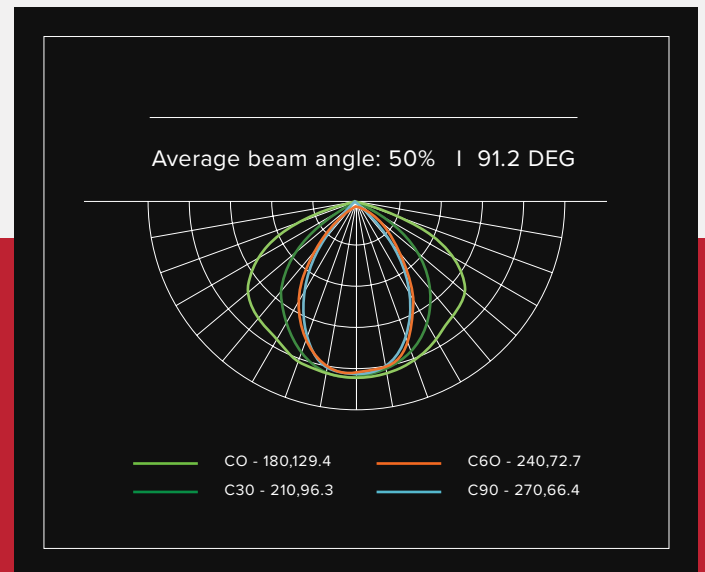


Our LED Module is equipped with PHILIPS LUXEON HE PLUS high efficiency chips, delivering an impressive 196 Lumens per Watt efficacy.

The luminaire adheres to DARK SKY requirements for light pollution, ensuring minimal upward lighting at just 0,31%.

LIGHT DISTRIBUTION

The MagSol AIOS delivers superior light distribution, making it ideal for street lighting, pathways, parks, and a wide range of outdoor applications.



Monocrystalline Solar Panel

The MagSol AIOS panels feature monocrystalline solar cells with TOPCON Grade A Quality - boasting up to 25.5% efficiency and 97% conversion efficiency in low light.

These panels are tough against corrosion. The fully waterproof Plug and Play connectors ensure a seamless and reliable installation.



IR REMOTE CONTROL (OPTIONAL)

- Check battery status
- Check charging history
- Settle different running time slots
- Issue diagnostic



MPPT CONTROLLER

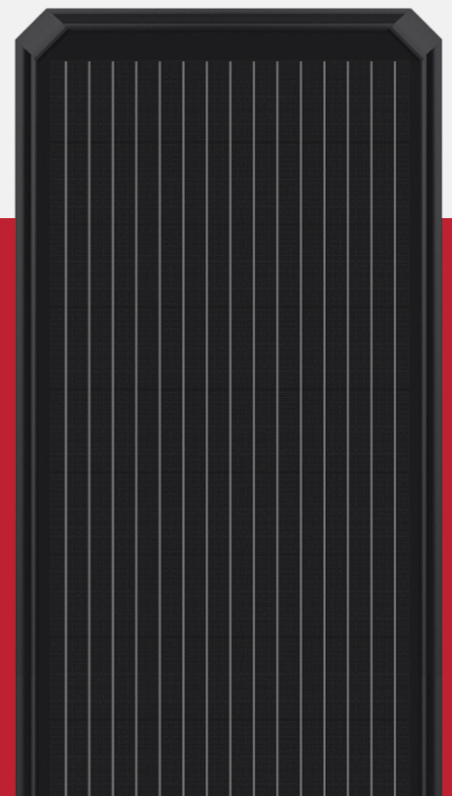
Waterproof Connectors | Performance & Reliability | Up to 98% Efficiency

OPTIONAL

Switch to grid connectivity when needed with our Hybrid AC/DC MPPT Controller and Driver.



TOPCON SOLAR TECHNOLOGY



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Batteries LifePo4

The MagSol AIOS line utilizes the Lithium Iron Phosphate LifePo4 battery, the proven best technology on the market for solar applications.

This leading solar technology offers over 4000 cycles at 80% DOD, ensuring a robust lifespan exceeding 10 years. It combines reliability with efficiency, perfectly aligning with our budget-friendly yet high-quality AIOS range. Durability and savings, all in one package!

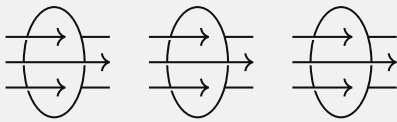


All weather conditions ready
-10°C to 45°C (optional -40°C)

BMS SYSTEM

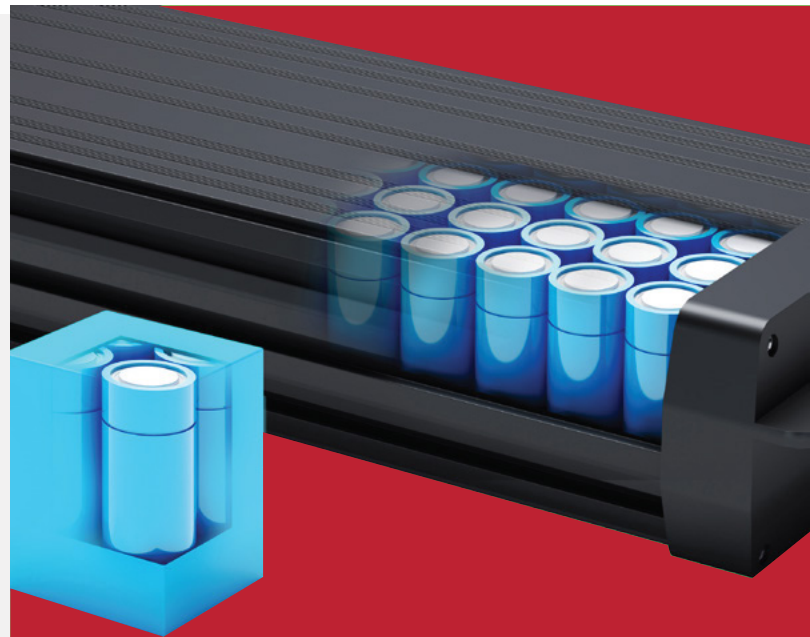
Electronic battery management system

Our batteries are equipped with electronic circuit boards for a higher protection.



- Over & Under Current - Overload
- Over & Under Voltage - Over & Under Charge
- Temperature Management

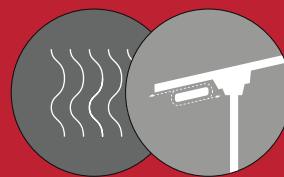
Direct battery access | Anti-Theft Screws



HEAT DISSIPATION

High temperatures greatly reduces battery lifetime. That's why our batteries are encased in an aluminium waterproof casing for perfect heat dissipation.

Natural airflow also keeps the battery at ambient temperature, ensuring optimal performance.



Natural Airflow
Design for Improved
Heat Dissipation

Comparison of different battery technologies

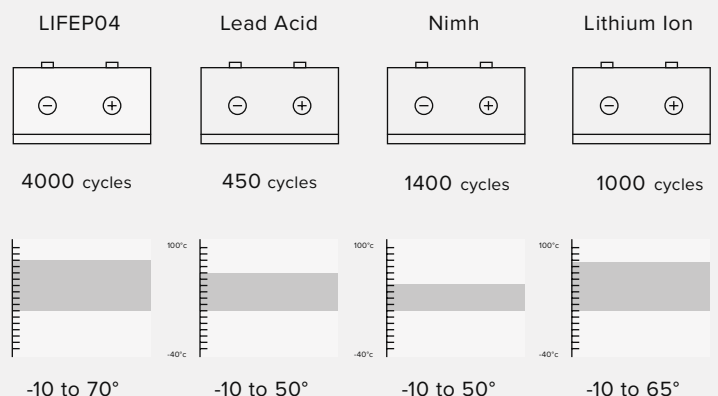
Lifetime & cycles at 80% DOD

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Charging temperature range without
capacity loss

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Minimum & Maximum temperature range for optimal charging during the day



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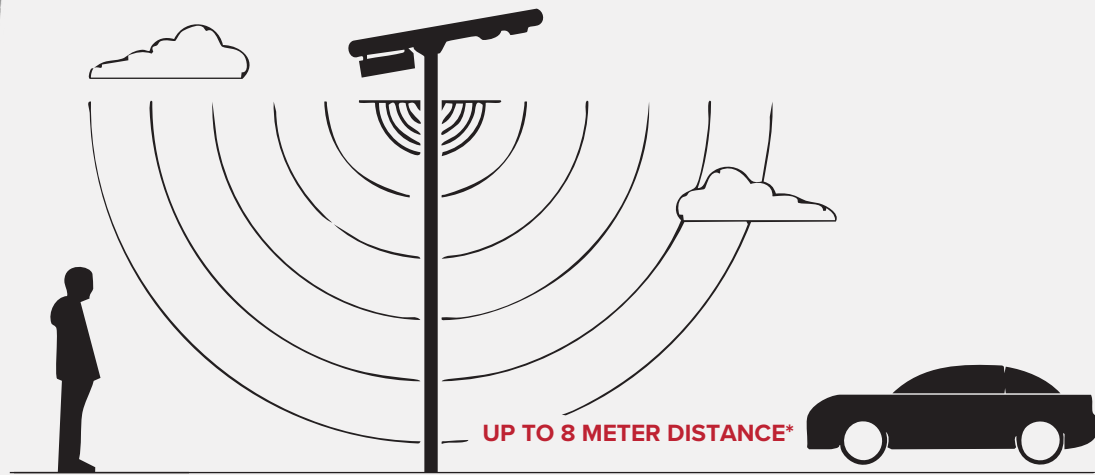


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Microwave Sensor



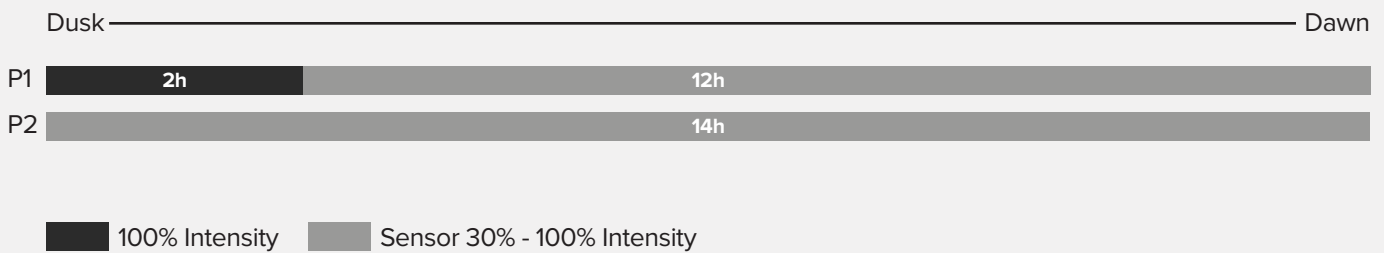
MagSol luminaires are equipped with microwave detectors that use the Doppler effect to detect nearby objects and measure their distance. The sensor emits a high-frequency wave that reflects off objects, allowing for precise analysis.



*When mounted at the recommended mounting height.

Operation Mode

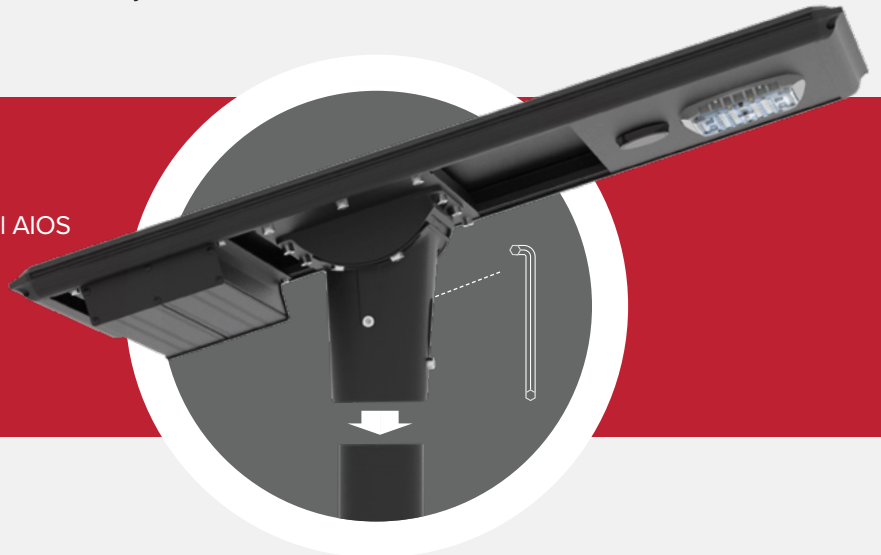
Whether your project demands part-night brightness, early evening lighting, or anything in between, our flexible lighting programs have you covered. Choose from different modular operating modes to suit the specific needs of your project.



Ease of Installation

With a well-designed bracket support, the MagSol AIOS is effortless and flexible to install.

- One tool system installation
- Insert, orientate and choose your tilt



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Technical Specifications



FEATURE	MAGSOL AIOS 40	MAGSOL AIOS 50	MAGSOL AIOS 60
NOMINAL POWER	40 Watts	50 Watts	60 Watts
NOMINAL FLUX	7840 Lumens	9800 Lumens	11760 Lumens
LIGHTING			
Efficiency	196 Lumens/Watt		
Chip	PHILIPS Luxeon 30-30		
Lifetime	100 000 Hours		
Recommended Mounting Height	4-5 Meters	4-5 Meters	5-7 Meters
STORAGE			
Technology	Lithium Iron Phosphate LifePo4		
Capacity	307 Wh	371 Wh	538 Wh
Autonomy	> 24 Hours at Full Charge, Up to 4 Rainy Days Back Up		
Charging Time	5-6 Hours		
Lifespan	Over 4000 Cycles @ 80% DOD Over 10-Year Lifetime		
Working Temperature	-10°C - 70°C (Optional -40°C - 70°C)		
ENERGY			
Solar Panel	72W / 18V	72W / 18V	105W / 18V
Cell Type	Monocrystalline Topcon Grade A - Up to 25.5% Efficiency and 97% Conversion Efficiency in Low Light		
Certificates	IEC 61215 - IEC 61730 I and II - IEC 60904		
ELECTRONIC			
Controller	MPPT Smart Controller		
Sensor	Microwave 360° Motion Sensor		
Cabling	Waterproof Connector Plug and Play		
Protection	Battery Management System (BMS)		
DIMENSIONS			
Unit Size	944 x 440 x 248	944 x 440 x 248	1330 x 500 x 280
Carton Size	1010 x 500 x 265	1010 x 500 x 265	1310 x 500 x 265
Net Weight	11.82 KG	12.4 KG	14.27 KG
Gross Weight	15.62 KG	16.2 KG	18.46 KG

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FEATURE	MAGSOL AIOS 80	MAGSOL AIOS 100	MAGSOL AIOS 120
NOMINAL POWER	80 Watts	100 Watts	120 Watts
NOMINAL FLUX	15680 Lumens	19600 Lumens	23520 Lumens
LIGHTING			
Efficiency	196 Lumens/Watt		
Chip	PHILIPS Luxeon 30-30		
Lifetime	100 000 Hours - LM80		
Recommended Mounting Height	5-7 Meters	6-8 Meters	6-8 Meters
STORAGE			
Technology	Lithium Iron Phosphate LifePo4		
Capacity	655 Wh	794 Wh	922 Wh
Autonomy	> 24 Hours at Full Charge, Up to 4 Rainy Days Back Up		
Charging Time	5-6 Hours		
Lifespan	Over 4000 Cycles @ 80% DOD Over 10-Year Lifetime		
Working Temperature	-10°C - 70°C (Optional -40°C - 70°C)		
ENERGY			
Solar Panel	105W / 18V	140W / 18V	140W / 18V
Cell Type	Monocrystalline Topcon Grade A - Up to 25.5% Efficiency and 97% Conversion Efficiency in Low Light		
Certificates	IEC 61215 - IEC 61730 I and II - IEC 60904		
ELECTRONIC			
Controller	MPPT Smart Controller		
Sensor	Microwave 360° Motion Sensor		
Cabling	Waterproof Connector Plug and Play		
Protection	Battery Management System (BMS)		
DIMENSIONS			
Unit Size	1249 x 440 x 248	1584 x 440 x 248	1584 x 440 x 248
Carton Size	1330 x 500 x 280	1670 x 510 x 280	1650 x 500 x 265
Net Weight	14.87 KG	18.5 KG	19.6 KG
Gross Weight	19 KG	22 KG	24.3 KG

Related Solar Products



Solar High Mast



Solar Street Light



Solar Floodlight

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