

# MAGSOL PRO RANGE



**MAGNITECH**  
LIGHTING INDUSTRIES

Two Piece Solar Street Light



**40W**

7,840  
lumens

**60W**

11,760  
lumens

**80W**

15,680  
lumens

**100W**

19,600  
lumens

**120W**

23,520  
lumens



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## Introduction

### Two Piece Solar Street Light

## Hello **Performance!**

The MAGSOL PRO series is Magnitech's high-performance split solar street lighting solution, designed for reliability, efficiency, and visual appeal.

Equipped with a robust LiFePO<sub>4</sub> battery, high-efficiency MPPT controller, and a durable aluminium housing, the MAGSOL PRO delivers powerful illumination built to endure harsh environments.

Engineered for long-lasting performance with a sleek, modern design — it's lighting so reliable, you'll forget it's not on the grid.

With the MAGSOL PRO, you've got the power and control to light up any project, no matter the challenge!



## Fit-For-Purpose:



Roads



Parks &  
Gardens



Car Parks



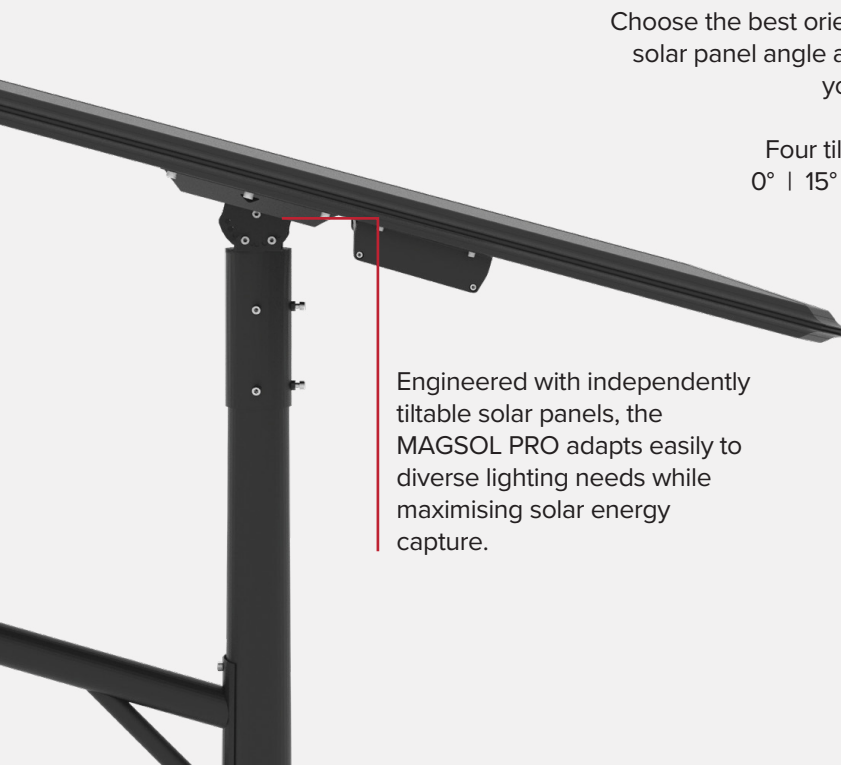
Off Grid  
Locations



Pedestrian  
Areas



Pathways



Choose the best orientation and solar panel angle according to your location.

Four tilts available:  
0° | 15° | 30° | 45°

Engineered with independently tiltable solar panels, the MAGSOL PRO adapts easily to diverse lighting needs while maximising solar energy capture.





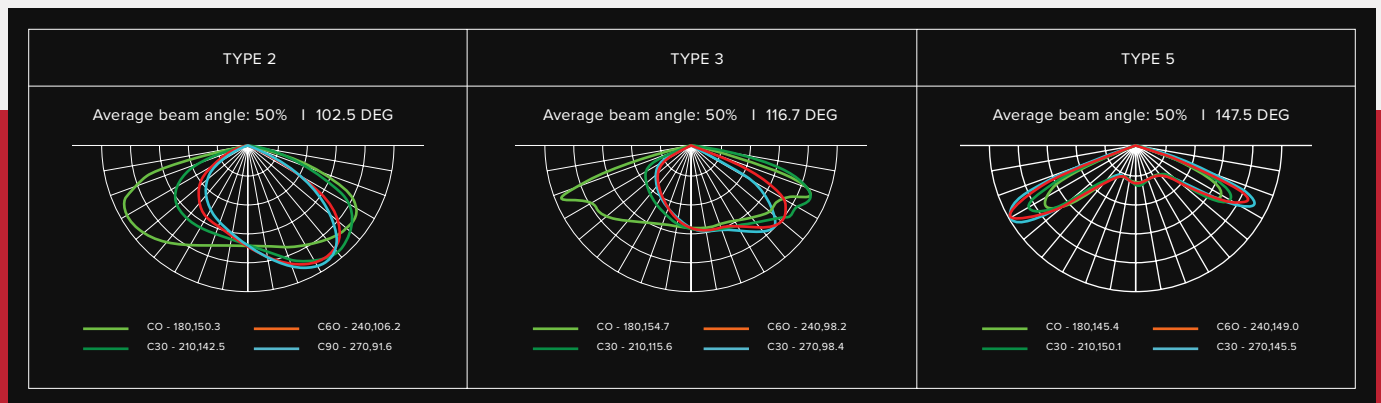
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**LED**  
Modules



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%.



## Monocrystalline Solar Panel

The MagSol PRO 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

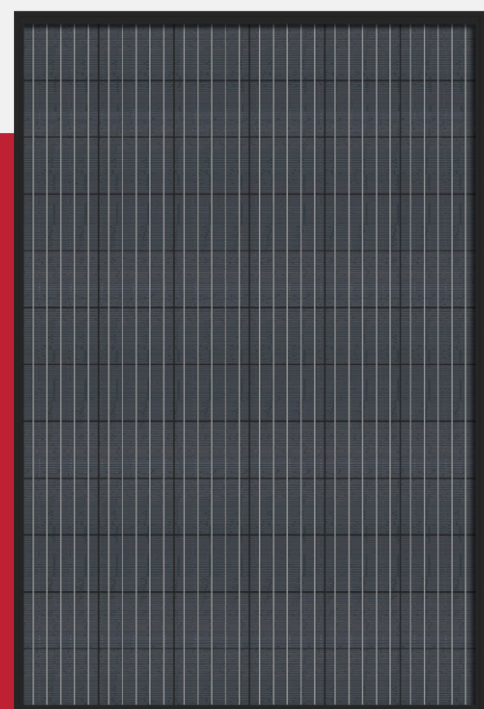
Waterproof Connectors | Performance & Reliability | Up to 98% Efficiency

### 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 PRO 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 PRO range. Durability and savings, all in one package!

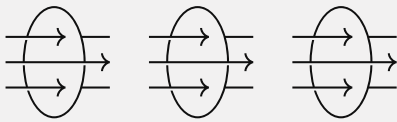


All weather conditions ready  
-10°C to 45°C (optional -40°C)

### BMS SYSTEM

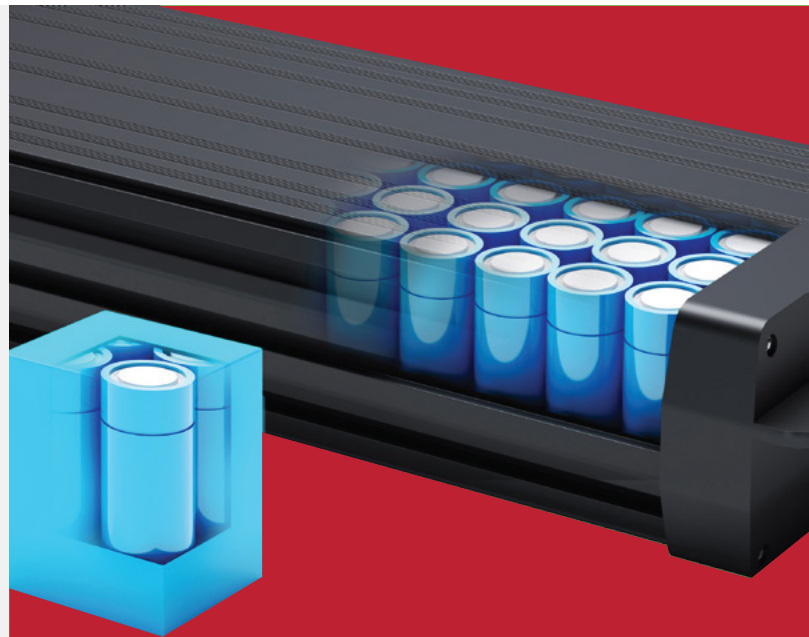
Electronic battery management system

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



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

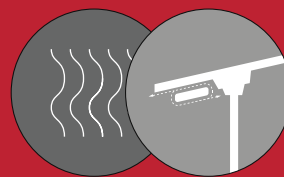
**Direct battery access | Anti-Theft Screws**



### 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

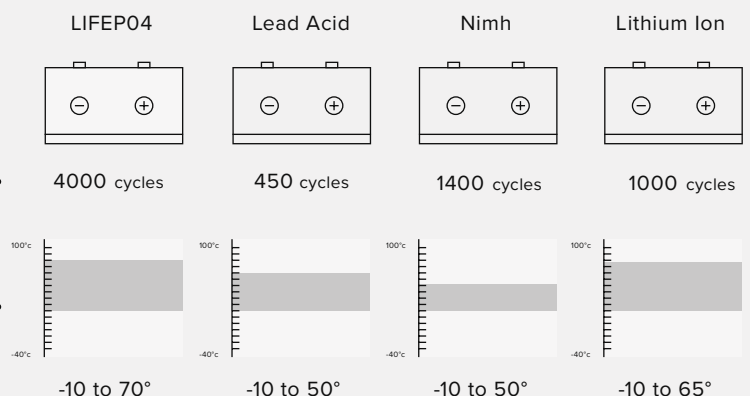
## Comparison of different battery technologies

Lifetime & cycles at 80% DOD

.....●

Charging temperature range without  
capacity loss .....

Minimum & Maximum temperature range for optimal charging during the day



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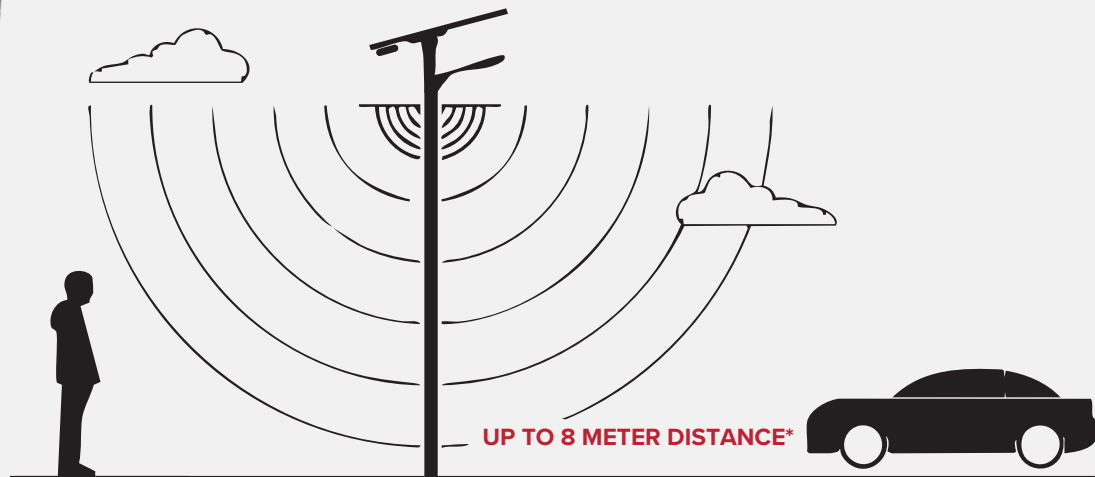


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## Microwave Sensor



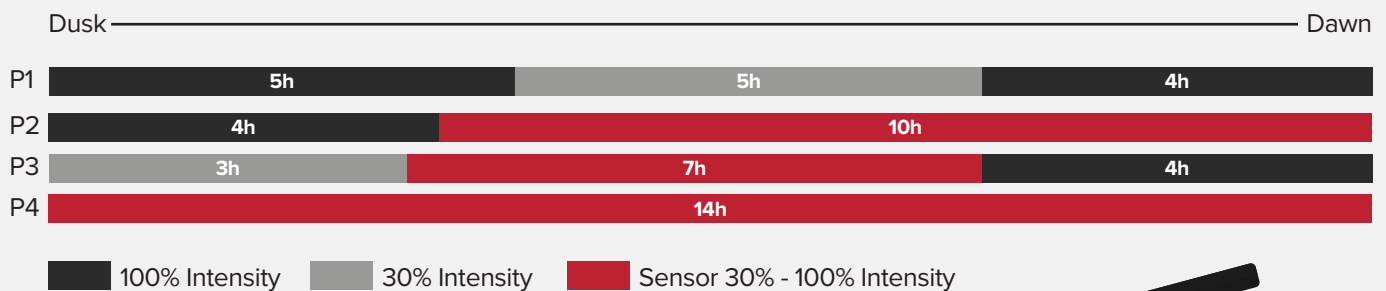
MagSol luminaires are equipped with microwave detectors that use the Doppler effect to detect nearby objects and measure their distance. The sensor emits a high-frequency wave that reflects off objects, allowing for precise analysis.



\*When mounted at the recommended mounting height.

## Operation Mode

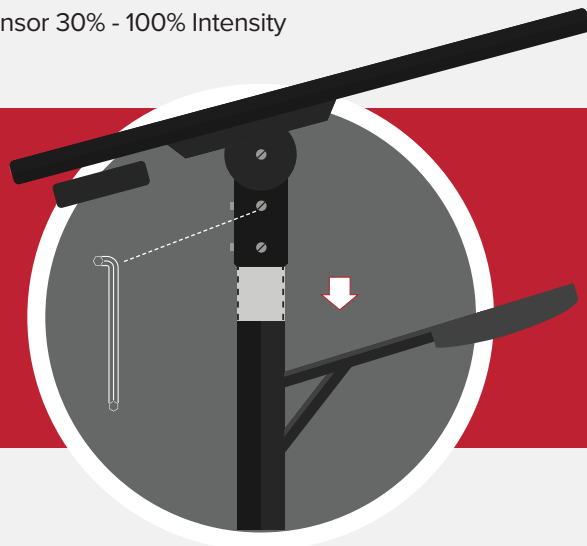
Whether your project demands part-night brightness, early evening lighting, or anything in between, our flexible lighting programs have you covered. Choose from different modular operating modes to suit the specific needs of your project.



## Ease of Installation

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

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



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FEATURE	MAGSOL PRO 40	MAGSOL PRO 60	MAGSOL PRO 80
NOMINAL POWER	40 Watts	60 Watts	80 Watts
NOMINAL FLUX	7840 Lumens	11760 Lumens	15680 Lumens
LIGHTING			
Efficiency	196 Lumens/Watt		
Chip	PHILIPS Luxeon 30-30		
Lifetime	100 000 Hours		
Recommended Mounting Height	5-6 Meters	6-7 Meters	7-8 Meters
STORAGE			
Technology	Lithium Iron Phosphate LifePo4		
Capacity	627 Wh	922 Wh	1152 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 - 45°C (Optional -40°C - 45°C)		
ENERGY			
Solar Panel	135W / 18V	195W / 18V	195W / 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	990 x 670 x 271	1450 x 670 x 271	1450 x 670 x 271
Carton Size	1060 x 730 x 245	1510 x 730 x 245	1510 x 730 x 245
Net Weight	14.5 KG	21 KG	20.7 KG
Gross Weight	20 KG	26 KG	26 KG



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## Technical Specifications (cont.)



FEATURE	MAGSOL PRO 100	MAGSOL PRO 120
NOMINAL POWER	100 Watts	120 Watts
NOMINAL FLUX	19600 Lumens	23520 Lumens
LIGHTING		
Efficiency	196 Lumens/Watt	
Chip	PHILIPS Luxeon 30-30	
Lifetime	100 000 Hours - LM80	
Recommended Mounting Height	8-10 Meters	8-10 Meters
STORAGE		
Technology	Lithium Iron Phosphate LifePo4	
Capacity	1280 Wh	1536 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 - 45°C (Optional -40°C - 45°C)	
ENERGY		
Solar Panel	250W / 18V	250W / 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	1260 x 880 x 271	1260 x 880 x 271
Carton Size	1320 x 945 x 245	1320 x 945 x 245
Net Weight	25 KG	25 KG
Gross Weight	30 KG	30 KG



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## Related Solar Products



Solar High Mast



Solar Floodlight



Solar All-In-One

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