

# REVOLUTIONISING REMOTE POWER: THE INVO SOLAR ENGINE

The off-grid  
solar-powered  
engine for use  
with LED bollards

When it comes to powering remote locations, the challenges have always been steep – getting reliable energy to areas without access to conventional grid power often means choosing between costly installations or unreliable solutions. But that's changing fast, thanks to the **INVO Solar Engine**, a breakthrough in portable solar technology. With its adaptable, robust design and impressive battery capacity, this solar power solution is transforming the way we provide energy to remote areas, unlocking new possibilities for a wide range of applications.



## CUSTOMISABLE POWER

Whether you need one solar panel or a full array, this system can be customised to meet your power needs. With a battery capacity of up to 520Ah per unit, it stores enough energy to keep your devices running all day and night, even after sunset. This makes it perfect for places where power demand changes and reliable energy is critical.

## UNPARALLELED AUTONOMY: 10 DAYS WITHOUT SUN

The system keeps your equipment powered even in cloudy or low sunlight conditions. Its built-in energy storage ensures continuous power, preventing outages when you need it most. This reliable, long-lasting power is ideal for industries working in tough environments. From remote scientific monitoring to pathway lighting in shaded areas, the INVO Solar Engine provides confidence that your equipment will stay running, even in the most remote locations.

## POWER WHEN AND WHERE YOU NEED IT

The INVO Solar Engine provides power exactly where and when you need it, without relying on grid access or infrastructure limitations. Whether in a desert, deep in the forest, or at a remote research outpost, the INVO Solar Engine is up to the task. Easy to set up, it offers immediate power without complicated logistics.

- > Bifacial solar panel light absorption efficiency is 23% higher than monofacial solar panel
- > External battery can be replaced if required
- > Lithium Ion 18650 – More than 2000 cycles
- > Low capacity protection, minimum 20% safety margin for battery
- > MPPT controller and BIM included
- > IP Rating: Battery IP66 & Controller IP68
- > Aluminum + stainless fixing (anti-rust)
- > Working Temperature: -20°C to 65°C
- > ASW3.0 energy saving technology
- > The PTC auto-heat system can make the light operate normally even when the temperature goes down -40°C (suitable for cold areas)



## OPTIONAL BOLLARDS

We have a range of bollard lights that can be used with the INVO Solar Engine. These range from area lighting to way finding bollards and all are anti vandal construction, so can be installed in any location. Each bollard will have between 2 to 2.5 watt of LED with the highest possible lumen to watt ratio available. Not only this but each bollard is dual CCT with 2700 and 5000k our off the shelf ranges (customisable upon request).

Contact us for more information on what can be used with the INVO Solar Engine on 01522 538212, or email [enquiries@involighting.co.uk](mailto:enquiries@involighting.co.uk)



Solar Engine 175W  
(1 battery)

Solar Engine 240W  
(2 batteries)

Solar Engine 480W  
(4 batteries)

Specification	INVO SOLAR ENGINE 175W	INVO SOLAR ENGINE PRO 175W	INVO SOLAR ENGINE 240W	INVO SOLAR ENGINE PRO 240W	INVO SOLAR ENGINE 480W	INVO SOLAR ENGINE PRO 480W
Battery Li-ion	12V/135.2AH (1 battery)	12V/270.4WH (2 batteries)	24V/67.6AH (1 battery)	24V/135.2H (2 batteries)	24V/135.2H (2 batteries)	12V/540.8AH (4 batteries)
Battery /WH	1622.4WH	3244.8WH	1622.4WH	3244.8WH	3244.8WH	6489.6WH
Battery Charge Time	6hrs	8hrs	6hrs	8hrs	8hrs	8hrs
Battery Cycle & Lifespan	2000 times					
Solar Panel Wattage	175W	175W	240W	240W	240W	480W (240W x 2)
Solar Panel Voltage	18V					
Solar Panel Type	Bifacial Monocrystalline silicon solar panel					
Output Voltages	DC12V-24V (can be customised)					
Operating Modes	Dusk to dawn					
Wire	Standard 3m (can be customised)					
LCD Display	Yes					
Controller Type	MPPT					
Controller Protections	Over-voltage protection,Over-current protection,Over-heat protection,short-circuit protection,over-discharge protection					
Microwave Sensor Optional	Yes	Yes	Yes	Yes	Yes	Yes
Total Product Dimensions	106cm*82cm	106cm*82cm	160*82cm	160*82cm	160*82cm	160*82cm*2
Total Product Weight	32kg	36kg	40kg	44kg	44kg	72kg
IK Rating	IK08					
IP Rating	IP65					
Ta Rating	ta -10C to +50C					
Product Materials	Alu+PC					
Product Warranty	5 years					
Pole Spigot Diameter	80mm OD (Angle adjustable)	90mm OD	90mm OD	90mm OD	90mm OD	90mm OD

\*Procure Direct offers a 5 Year Limited Warranty for the INVO Solar Engine shall be free from defects in material and workmanship for up to five (5) years from date of shipment. This limited warranty covers all components when installed and operated according to PD instructions. Fixture suitable for ambient temperature from -10°C to 50°C. 3 year warranty on battery.

For more information, or to book your FREE audit,  
 call us on 01522 538212, email enquiries@involighting.co.uk  
 or visit us at www.involighting.co.uk

