

Suitable for Adopted Highways

SOLAR + GRID

## ASTRAL HYBRID LIGHTING COLUMN



solarvisionlighting.com

## **ASTRAL HYBRID** SOLAR LIGHTING COLUMN

## TECHNICAL SPECIFICATIONS

Light Head			
Rated Power	20W	30W	50W
Luminous Flux	32001m	4800lm	6800lm
Luminous Efficiency	160	160	136
Colour Temperature	2700K - 4000K		
LED Type	Philips Lumileds		
CRI	>81		
IP Rating	IP67		
Material	Aluminium Die Casting		
Warranty	3 years		
Certificates	CE - ROHS - IP67 - IK - LM79 - LM82 - TM21 - FCC - CB - IECCE		

Column			
Rating	BS EN 40		
Material	Galvanised Steel		
Height	5-6 meter	6-8 meter	8-10 meter
Service door	Yes		

Solar Charge	Q140	Q200
Structure	Aluminium Alloy	
Dimensions (mm)	228x200x1560	228x200x2065
Pmax	140wp x2	200wp x2
Solar Cell Efficiency	21.20%	
Operating Temperature	-30°C - 70°C	
Lifetime	25 years	
Warranty	3 years	

Battery Pack	
Battery Type	Lithium Iron Phosphate - LiFeP04 (2000 Cycles)
Battery Capacity	12.8V 461WH 36AH / 12.8 921WH 72AH
Battery Lifetime	>4000 Cycles DOD 50% or >2000 Cycles at 100% DOD
Battery Autonomy	2-3 Days

Controller	
System	Programmable MPPT Comntoller / Hybrid / Wireless
Charge Mode	MPPT AC/DC Hybrid Controller
System Voltage	12V/24V
Load Conversion Efficiency	>98%
Setting Method	Remote Control / Remote Access
Installation Method	Built-In
Operating Temperature	-40°C - 80°C
IP Rating	IP67



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## PRODUCT INFORMATION

- With MPPT technology, the tracking efficiency is up to 99.5% and the charge conversion efficiency is up to 96%
- From dusk the battery supply feeds the lighting load. As the battery switch voltage default setting of 11.5v is reached, the controller automatically switches to AC power supply. The battery will re-charge the following day. The cycle continues.
- 3. Settable switching voltage
- 4. Load power and time control
- High and low temperature protection function for storage battery in charging and discharging, and settable operation temperature
- Various intelligent power modes can be selected to automatically adjust the load power according to the battery
- High-precision digital step-up voltage and constant current control algorithm: ensure high efficiency and high constant current accuracy
- 8. Infrared remote control: allow for parameters setting and status checking
- **9.** Multiple protection functions, such as battery/PV reverse connection protection, LED short circuit/open
- 10. Extensible IoT remote communication and monitoring functions (-U/-C series)
- With all-aluminium metal shell and IP67 waterproof grade, it can be used in various severe environments

ELECTRICAL CONNECTION DIAGRAM