



Suitable for Residential
and Commercial use.

SPECTRUM SERIES

ASTRAL HYBRID SOLAR LIGHTING COLUMN

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**SOLAR
VISION**
LIGHTING TECHNOLOGIES



ASTRAL HYBRID SOLAR LIGHTING COLUMN

TECHNICAL SPECIFICATIONS

Product Type	ASTRAL U20W	ASTRAL U30W	ASTRAL U50W
Fixture IP	IP67		
Material	Aluminium Die Casting		
LED Type	Philips Lumileds		
CCT Range	3000K / 4000K		
CRI	>81		
Luminous Flux	3200lm	4800lm	6800lm
Pole Height	6 Metres	8 Metres	10 Metres
Rated Power	20W-30W	30W-50W	50W+
Luminaire Efficiency	160	160	136
Warranty	3 Years		
Certificates	CE - ROHS - IP67 - IK08 - LM79 - LM82 - TM21 - FCC - CB - IECEE		

Battery Pack

Battery Type	Lithium Iron Phosphate - LiFePO4 (2000 Cycles)
Battery Lifetime	>4000 Cycles DOD 50% or >2000 Cycles at 100% DOD
Charge Time	3 Hours

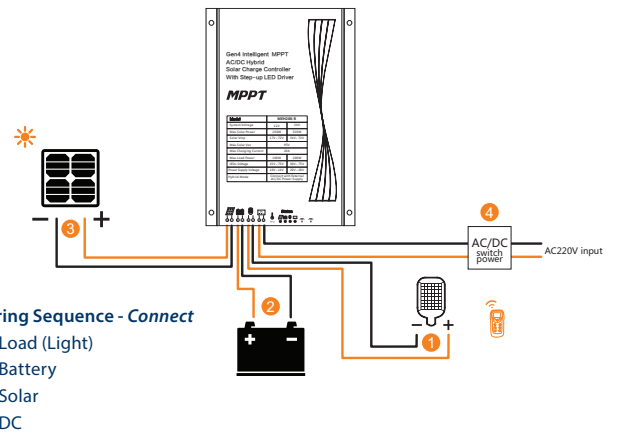
Control System	Programmable MPPT Controller / Hybrid Controller / Wireless Intelligent Control
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Solar Charge	Q140	Q200
Structure	Aluminium Alloy	
Dimensions (mm)	228 x 200 x 1560	228 x 200 x 2065
Pmax	140wp x2	200wp x2
Vmp	36V	
Solar Cell Efficiency	21.20%	
Cable	MC4 0.6 meter	
Operating Temp.	-30°C - 70°C	
Lifetime	25 Years	
Warranty	3 Years	
Certificates	CE - ROHS - FCC - IP67 - LM80 - COC - IK10 - LM79 - SABER - CB	

Controller

Charge Mode	MPPT AC/DC Hybrid Controller
System Voltage	12V/24V
Load Conversion Efficiency	90%-86%
Setting Method	By Remote Control
Operating Temp.	-35°C - +65°C
IP Rating	IP67

ELECTRICAL CONNECTION DIAGRAM



KEY FEATURES

- 1 With MPPT technology, the tracking efficiency is up to 99.5% and the charge conversion efficiency is up to 96%
- 2 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
- 5 High and low temperature protection function for storage battery in charging and discharging, and settable operation temperature
- 6 Various intelligent power modes can be selected to automatically adjust the load power according to the battery
- 7 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)
- 11 With all-aluminium metal shell and IP67 waterproof grade, it can be used in various severe environments