

**EverExceed**<sup>®</sup>  
*power your applications*

# Solar Street Lighting System



Model: MT-EVAL-30W

EVEREXCEED CORPORATION  
[www.everexceed.com](http://www.everexceed.com)



## SOLAR STREET LIGHT SYSTEM

EverExceed is a professional, efficient and integrated enterprise specializing in R&D, production and sales of LED lighting products. Focus on the development and production of new solar outdoor lighting. Our company has a complete and scientific quality management system. Products are widely used in highways, streets, courtyards, communities, schools, plazas, parking production and other fields around the world. The integrity, strength and product quality of EverExceed have been recognized by the industry. The company's products have passed CE, ROHS, IP65 and other certifications, in line with the export requirements of most countries in the world.



### Advantages

- ▶ Solar street lights are independent of the utility grid. Hence, the operation costs are minimized.
- ▶ Solar street lights require much less maintenance compared to conventional street lights.
- ▶ Since external wires are eliminated, risk of accidents is minimized.
- ▶ This is a non polluting source of electricity.
- ▶ Separate parts of solar system can be easily carried to the remote areas.



## Components

MT-EVAL-30W Consist Of 4 Main Parts

### Lighting Fixture

EverExceed solar street lights use the world's best LED chip brand, such as: Cree / Bridgelux / Philip / Osram, etc. LED chip life up to 50,000 hours or more, with high luminous efficiency. Another feature is that its power consumption is particularly low, because it uses DC drive, ultra-low power consumption, and electro-optical power conversion is close to 30%. The working voltage of the LED is 2-3.6V, and the working current is 0.02-0.03A; this means that it consumes no more than 0.1W of electric energy, and the same lighting effect is nearly 80% energy saving compared with the traditional light source.



### Battery

Battery will store the electricity from solar panel during the day and provide energy to the fixture during night. EverExceed battery advantage: \* More than 10 years of design life; \* Excellent Deep Cycle Ability 2000+ cycles at 100% DOD; \* High quality: Grade A cell; \* Low internal resistance :  $\leq 50\text{m}\Omega$  \* Safety - mild warm, no explosion and firing, free of leakage; \* Maintenance Free as so on.





### Controller

The semiconductor components of EverExceed controller adopt international famous brands such as IR, ST, ON, etc. The controller has ultra-high charging efficiency and LED driving efficiency, and IP68 protection level comprehensive protection controller, Constant current drive LED efficiency up to 96%, Drive efficiency range: 91% - 96%.

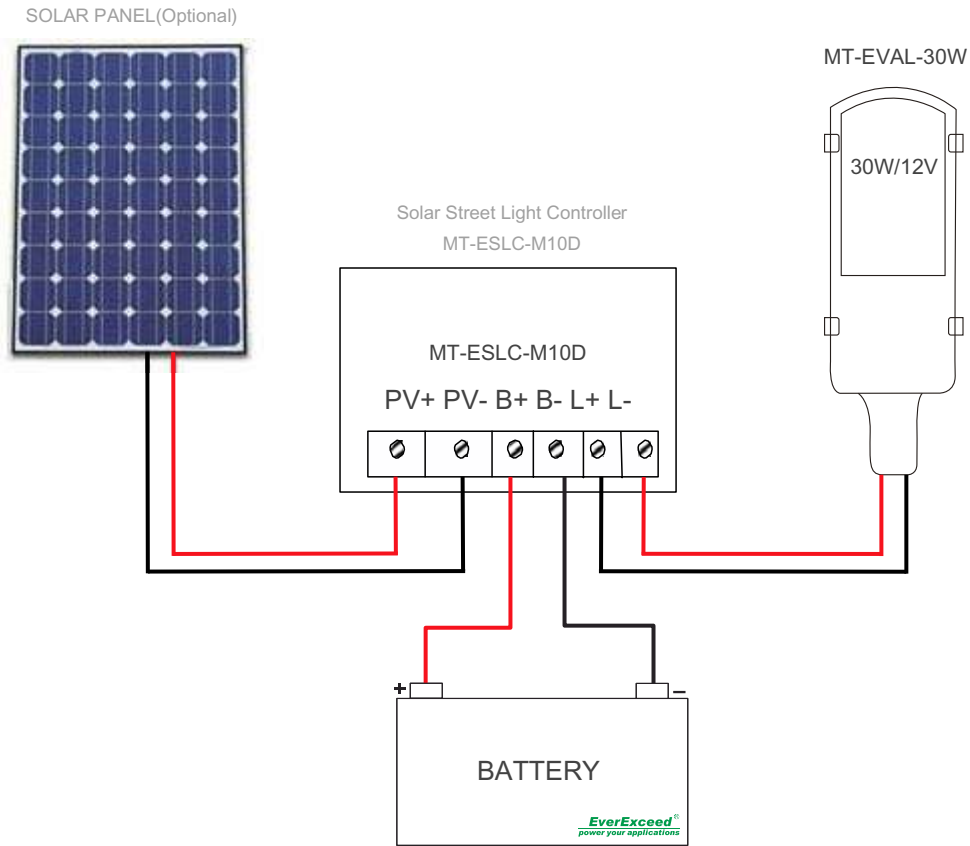


### Street light case

EverExceed street light has a strong outer casing and IP65 waterproof rating, which can make the street lamp work well in harsh environments. The outer casing is made of die-cast aluminum. It is hard and invariable. The surface of the outer casing is sprayed with waterproof paint to completely isolate salt spray and acid rain. Inside the casing to prevent corrosion of the casing.



## 30W solar street light system



## 30W solar street light system configuration table

Product	Model	Specifications	Quantity	Unit
Battery	MT-LLS-12V30AH	LiFePO4 12V/30Ah	1	pcs
Controller	MT-ESLC-M10D	10A MPPT	1	pcs
Solar Street Light	MT-EVAL-30W	30W/12V	1	pcs
Light Case	Light Case		1	Set

## LED light parameters

Model	MT-EVAL-30W
Power	30W
Luminous efficiency	110lm/W
Lumens	3600lm
Temperature Color	6000~6500K
LED quantity	50 pcs
CRI	Ra $\geq$ 80
Led chip brand	Bridgelux 45(USA brand)
Power efficiency	$\geq$ 90%
Power factor	$\geq$ 0.95
Beam angle	120°
Life span	$\geq$ 50000Hrs
Designed life	10+years
Material	Aluminum alloy
IP rating	IP65
Mounting height	5~6m
Junction Temperature	$\leq$ 75°C
Operating temperature	-20°C~70°C
Humidity	5% ~ 95%R.H.
Product dimension	600x255x155mm
Package dimension	640x295x175mm
Net weight	6.48kg
Gross weight	7.13kg



## LiFePO4 Battery 12.8V/30Ah



Items	Standard	Comments
Model	MT-LLS-12V30AH	
Nominal voltage	12.8V	LiFePO4
Typical capacity	30Ah	At 0.2C discharge rate
Max. charge current	10A	
Discharge cut-off voltage	10V	
Over-Current Discharge Protection	20A	
Allowable self- discharge	< 1.5% per month	
Cycle Life	≥3000 cycles	At the DOD 100% discharge
Charge voltage	14.6V	Charge mode: CC/CV, Use a constant current, constant voltage (CC/CV) please use special Lithium-ion charger
Charge current	≤10A	
Storage temperature range	-20°C~45°C	When the environment temperature is higher than 45°C, please pay attention to ventilation and heat rejection.
Working temperature	-20°C~70°C	
Protection function	Over charge protection、 Over discharge protection、 Over current protection 、 Short circuit protection	
Note	When not in use, charge the battery every 6 months to prevent battery damage	

## MPPT Solar Charge Controller



Model	MT-ESLC-M10D
Battery Voltage	12V/24V Auto
Battery type	Lithium battery or lead acid
Solar Panel Voltage	<85V
MPPT tracking range	15V≤Vmp≤70V(12V), 30V≤Vmp≤70V(24V)
Max Charging Current	10A
Max. DC input Power	12V/130W, 24V/260W
LED Driver Max Output Voltage	16V~55V(12V), 30V~55V(24V)
LED Driver Max Output Power	12V/80W, 24V/160W
LED Driver Converting Max Efficiency	97.4%
Max.Charging efficiency	98.4%
Charge mode	CC , CV
MPPT Tracking efficient	>99.9%
Light Control Turn Off Lamp PV Voltage	≤5.0V, ≤10.0V
Load Operating Mode	5 segment dimming programming
Standby Loss	≤10mA
Temperature Compensation	-4mV/°C/2V
Working Temperature Range	-30°C~60°C
Protection Grade	IP68
Remote control	Wireless remote control

## Structure diagram



## Applications

Widely used in the branch road, street, and factory road, park road, rural, mountainous, farms and remote area lighting project, courtyard, schools, square and other outdoor lighting places.

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