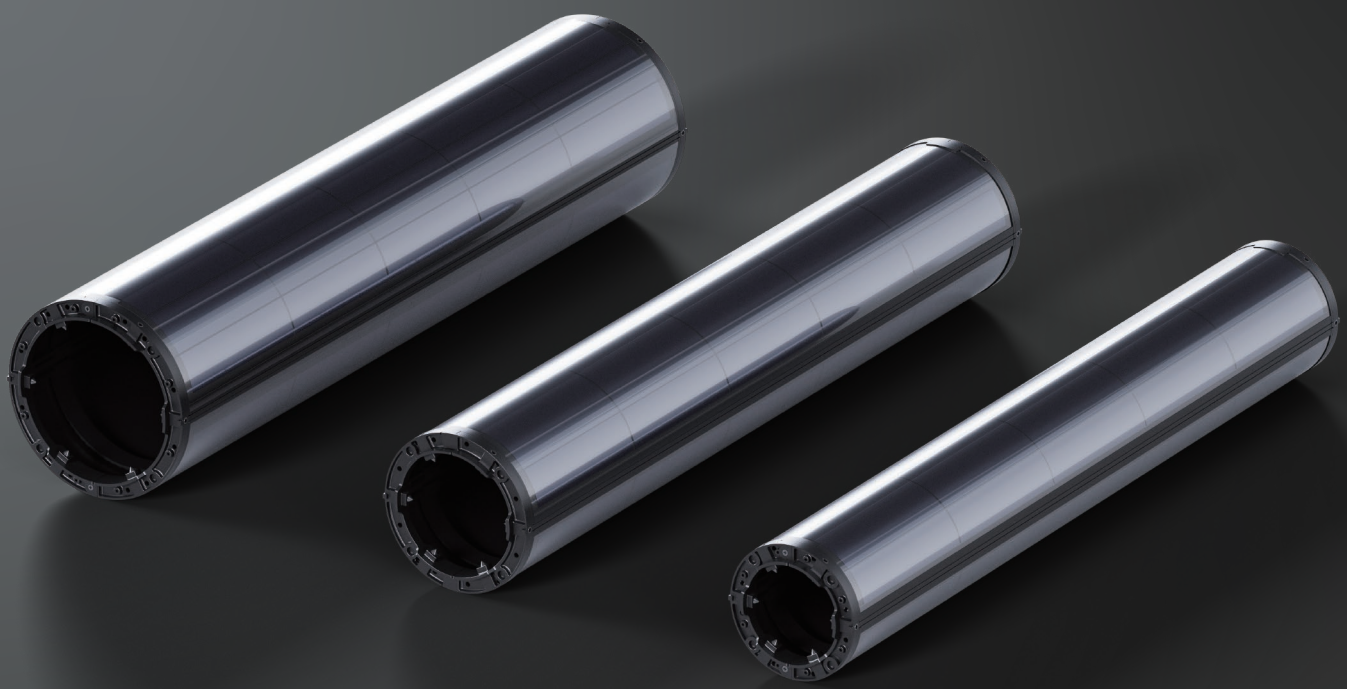
EMOTTER ENERGY INC

SolarWrap®

VSP-Series TUBE



SolarWrap®

VSP-SERIES

Designed in U.S.A

Designed in U.S.A and assembled in P.R.C, SolarWrap VSP-Series tube represents an innovative solution tailored for pole-mounted applications. Distinguished from conventional solar panels, poles equipped with the SolarWrap cylinder exhibit exceptional aesthetic appeal, seamlessly integrating into serene environments while retaining the appearance of traditional poles, albeit enhanced with beauty. Its versatility extends to various applications including solar light poles, solar camera poles, and solar traffic signs.

Employing SUNPOWER cells manufactured in the U.S.A., the SolarWrap boasts remarkable power generation efficiency, capable of flexing without cracking and outperforming traditional monocrystalline solar panels by 10% in low-light conditions. Protected by tempered glass, it withstands wind, sand, and UV exposure, resisting dust accumulation and ensuring a service life exceeding 20 years. Multiple SolarWrap units can be mounted on a single pole to enhance power generation.

Featuring a modular design, the SolarWrap is easily installable and adaptable to diverse pole shapes such as round, hexagonal, octagonal, or conical, within specified diameter limits. Retrofitting existing poles, including traditional metal halide street lights, into solar-powered poles is achievable with the SolarWrap. To cater to varied applications, three models of the SolarWrap are available, ensuring compatibility with diverse project requirements.

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FEATURES

Fit to Different Size

SolarWrap vertical solar cylinder is able to cater to different sizes and different shapes of mounting poles.

360° Full Day Charging

Half area of round solar tube is facing to sun all the time to ensure continous charging all day long, generating more power

Modular Installation

It adopts modular concepts and uses male and female sliding installation structures to make the installation easier

No Sand & Dust Accumulation

Sand & dust will not accumulate on the vertically installed solar panel. no need to clean the solar panels frequently

No Snow Accumulation

The vertically mounted solar cylinder prevents snow buildup, ensuring reliable power generation even in snowy climates.

No Accumulation of Snow

There is no risk of less or even no power generation from solar panel caused by snow accumulation in winter time.

Strong Wind Resistance

With smaller wind resistance area and stronger installation bracket it has very great wind resistant performance up to 160km/H.

Aesthetics Appearance

All the mounting poles adopted vertical PV cylinder blend into environments perfectly without disturbing the beauty of the view.

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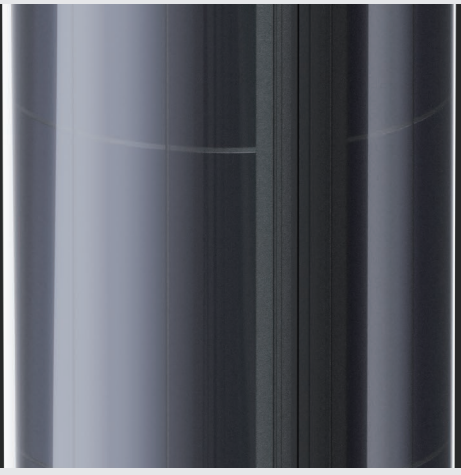
Adaptable With Various Types of Lamp Poles

SolarWrap VSP-Series cylinder is able to cater to different sizes and different shapes of mounting poles.

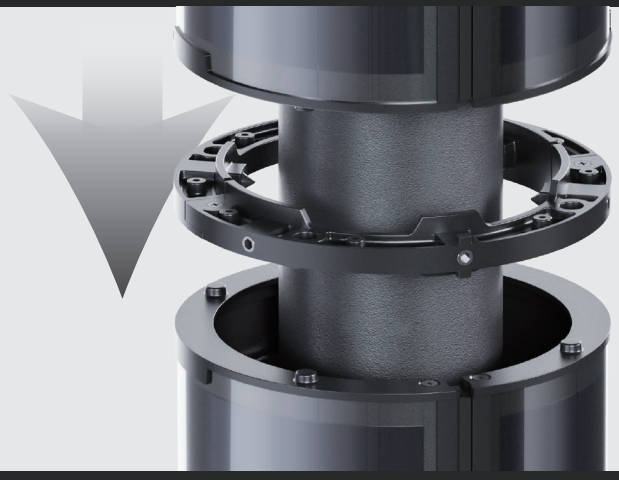


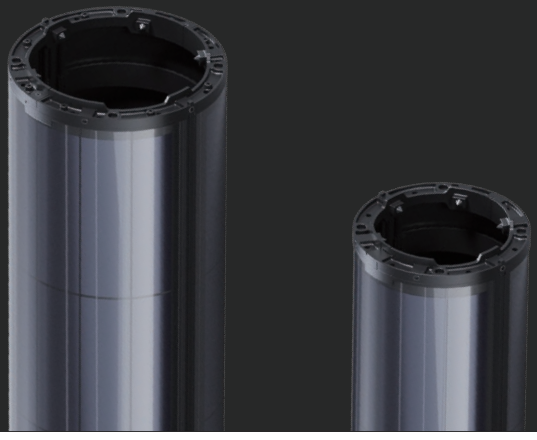
High-Efficiency Solar Panel
with Exceptional Craftsmanship

This solar panel combines cutting-edge technology with exquisite craftsmanship, and has extremely high conversion efficiency. Combined with its polygonal structure design, it can achieve nearly 360° light absorption, ensuring maximum power generation even in low-light environments. It is a top-notch solution to meet sustainable lighting needs.

Modular Installation

With the modular concept, multiple modules can be combined into the required output power to meet the needs of different types of projects.





Cylindrical Design

The cylindrical structure has more aerodynamic advantages than a flat plate, is more stable in strong winds, and is less likely to accumulate dust and snow on the surface, greatly improving the safety and life of the entire lamp.

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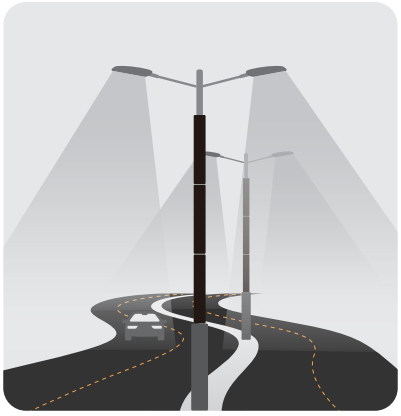
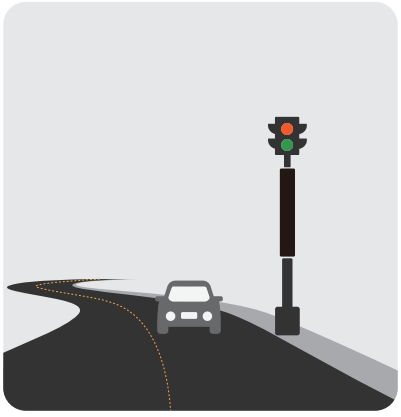
APPLICATIONS



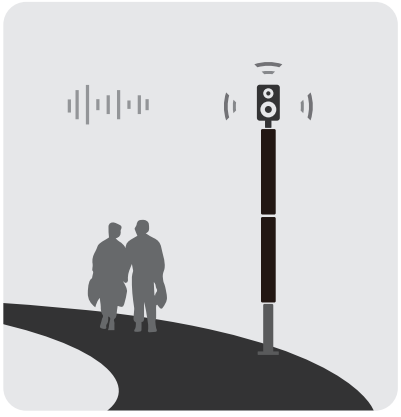
A **Street Light**

B **CCTV System**

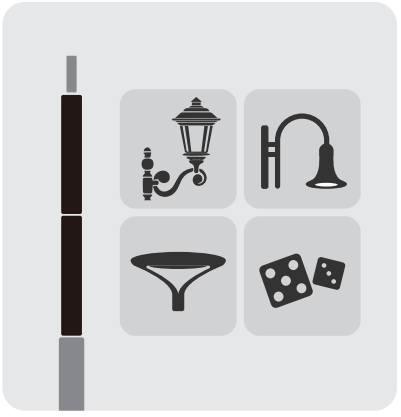
C **Garden Light**



D **Road Signal Light**



E **Wireless Broadcast**



F **Custom Lighting**

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PARAMETER I S80

Model number	**S80**
Dimension	D160*1040mm
Pmax	80W
Voltage @ Pmax (Vmp)	6V
Current @ Pmax (Imp)	13.33A
Open Circuit Voltage (Voc)	7.2V
Short Circuit Current (Isc)	14.66A
Power Tolerance (w)	±3%
Cell type	MONO made in Taiwan
Solar cell efficiency	22.50%
Cable Size &Connnector	2.5mm Universal MC4
Operating temp.	-20°C ~ +70°C
Lifetime	>20 years
Pole diameter	60~110mm max
Glass	High-strength tempered glass
Frame	Aluminum frame (High tension resistance, corrosion resistance, abrasion resistance)
Mechanical Load	Front 5400PA/back 2400PA
Waterproof level	IP66
Warranty	3 years

POWER GENERATION

Valid Sunshine Time (hrs)	Average daily power generation (Wh)	Peak power generation (Wh)
Model	**S80**	**S80**
2.5	100	125
3	120	150
3.5	140	175
4	160	200
4.5	180	225
5	200	250
5.5	220	275
6	240	300

Note: Vertical power generation system has a close relationship with latitude and altitude. The data in this file is based on the data of 23° N, and specific data need to be tested and verified locally.

DIMENSION

unit: mm

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PARAMETER I S100

Model number	**S100**
Dimension	D190*1040mm
Pmax	100W
Voltage @ Pmax (Vmp)	6V
Current @ Pmax (Imp)	16.67A
Open Circuit Voltage (Voc)	7.2V
Short Circuit Current (Isc)	18.33A
Power Tolerance (w)	±3%
Cell type	MONO made in Taiwan
Solar cell efficiency	22.50%
Cable Size &Connnector	2.5mm Universal MC4
Operating temp.	-20°C ~ +70°C
Lifetime	>20 years
Pole diameter	80~140mm max
Glass	High-strength tempered glass
Frame	Aluminum frame (High tension resistance, corrosion resistance, abrasion resistance)
Mechanical Load	Front 5400PA/back 2400PA
Waterproof level	IP66
Warranty	3 years

POWER GENERATION

Valid Sunshine Time (hrs)	Average daily power generation (Wh)	Peak power generation (Wh)
Model	**S100**	**S100**
2.5	125	150
3	150	180
3.5	175	210
4	200	240
4.5	225	270
5	250	300
5.5	275	330
6	300	360

Note: Vertical power generation system has a close relationship with latitude and altitude. The data in this file is based on the data of 23° N, and specific data need to be tested and verified locally.

DIMENSION

unit: mm

EMOTTER ENERGY INC

PARAMETER I S140

Model number	**S140**
Dimension	D240*1040mm
Pmax	140W
Voltage @ Pmax (Vmp)	9V
Current @ Pmax (Imp)	15.55A
Open Circuit Voltage (Voc)	10.8V
Short Circuit Current (Isc)	17.10A
Power Tolerance (w)	±3%
Cell type	MONO made in Taiwan
Solar cell efficiency	22.50%
Cable Size &Connnector	2.5mm Universal MC4
Operating temp.	-20°C ~ +70°C
Lifetime	>20 years
Pole diameter	100~180mm max
Glass	High-strength tempered glass
Frame	Aluminum frame (High tension resistance, corrosion resistance, abrasion resistance)
Mechanical Load	Front 5400PA/back 2400PA
Waterproof level	IP66
Warranty	3 years

POWER GENERATION

Valid Sunshine Time (hrs)	Average daily power generation (Wh)	Peak power generation (Wh)
Model	**S140**	**S140**
2.5	175	200
3	210	240
3.5	245	280
4	280	320
4.5	315	360
5	350	400
5.5	385	440
6	420	480

Note: Vertical power generation system has a close relationship with latitude and altitude. The data in this file is based on the data of 23° N, and specific data need to be tested and verified locally.

DIMENSION

unit: mm

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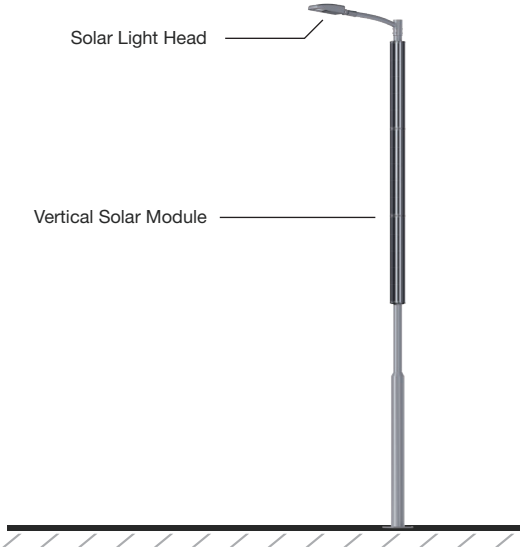
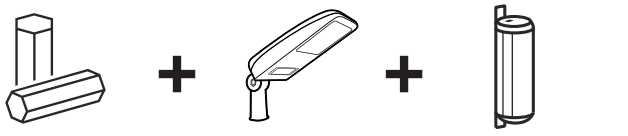
DEFINE YOUR SOLUTION

Scenario 01

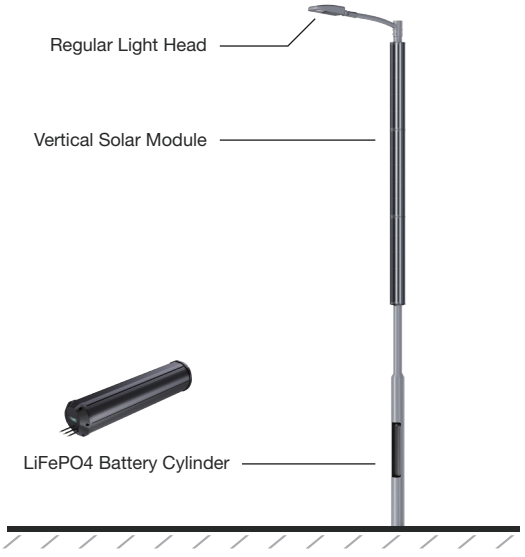
Vertical Solar Module + Solar Light Head
Built-in Battery + Controller



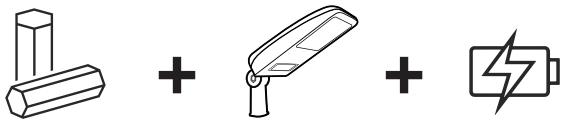
Scenario 02



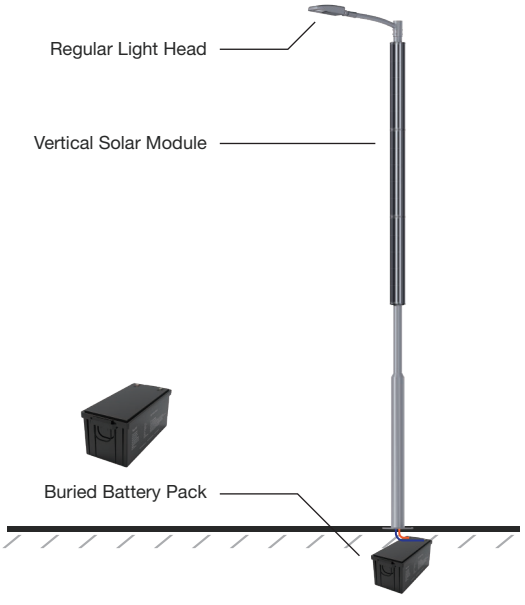
Vertical Solar Module + Regular Light Head + LiFePO4 Battery Cylinder



Scenario 03



Vertical Solar Module + Regular Light Head + Buried Battery Pack



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SolarWrap®

VERTICAL SOLAR TUBE

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INSTALLATIONS

Hybrid System with 220V Grid Supply (Optional)

Our solar street lights can be equipped with AC85~240VAC backup power supply, which is designed to ensure that solar street lights are more intelligent and reliable under extremely harsh conditions, especially in areas with insufficient solar radiation or sudden severe weather in certain months.

The control system will automatically switch to AC power supply when the battery voltgae is dropping a a lot and no power in the battery. And it will switch battery power once the voltage of battery is recovered to full capacity. With hybrid system solution, it ensure the non-stop & reliable lighting service without worrying blackout at all during the whole year.

FEATURES

High reliability

Dual power supply guarantee, no risk of lighting interruption.

Energy saving

Give priority to the use of clean energy to reduce carbon emissions.

More economical

Reduce power consumption and low long-term use cost.

Flexible installation

Suitable for areas where solar energy resources are unstable or require high brightness.

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IoT Smart Control Solutions (Optional)

Our solar street lights can be seamlessly integrated with advanced IoT communication modules, allowing each street light to automatically report key data such as operating status, battery health and solar power generation, while supporting remote switching, adaptive dimming and instant fault diagnosis.

Single light control

Wireless Network

Malfunction management

Energy consumption analysis

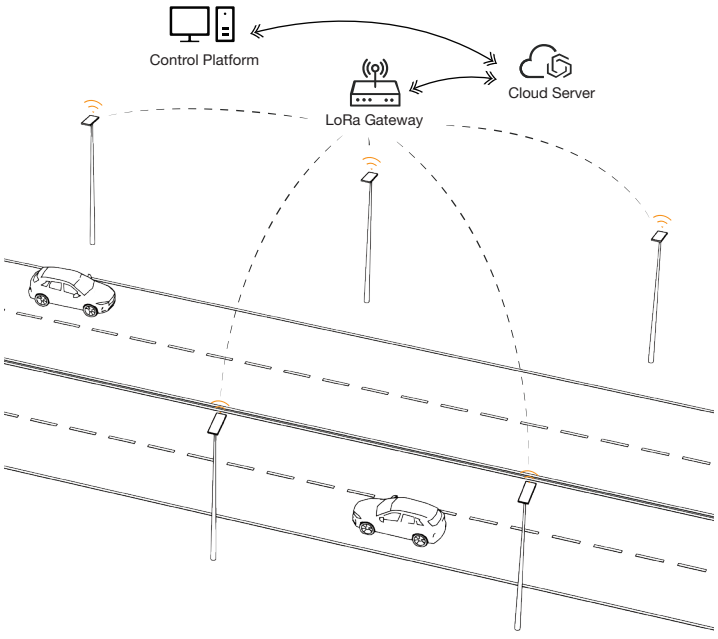
Intelligent monitoring

LoRaWAN®

SMART CONTROL SOLUTION

Advantages

Ultra-low power consumption, ultra-long distance

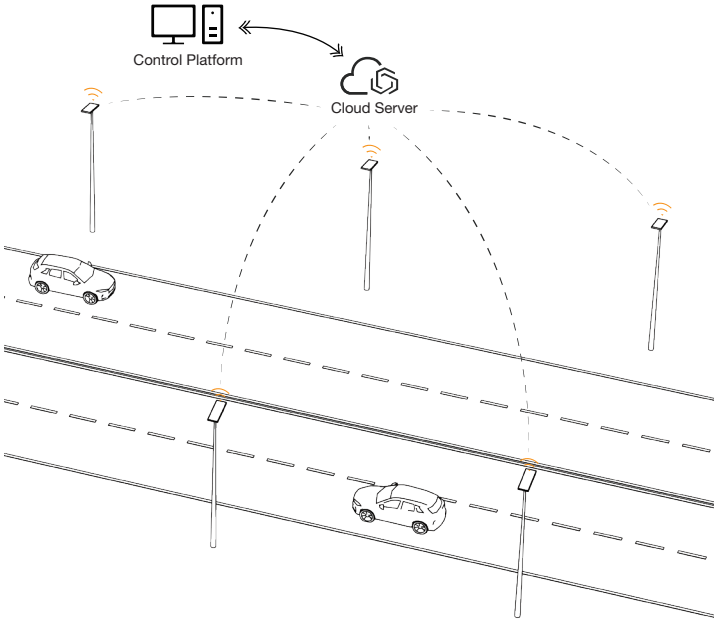


4G Communication Network

SMART CONTROL SOLUTION

Advantages

Fast speed, no gateway required, Ultra long distance, High connection stability



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SolarWrap®

VSP-Series TUBE

Emitter Energy Inc.

Tel : +1 919 434 1405

Address : 12517 Calderwood St. Raleigh, NC 27614