E-AblePower® Technology

www.e-ablepower.com

SERIE: THOR POTENCIAS DESDE 60 A 120W

SolarWrap

20W ~ 120W | All in Two

Vertical Solar LED Street Light

2019~2020

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THOR

60 | 80 | 100 | 120 Watts

Solar LED Street Light Head

High Power Specially for Express-Way

Key Advantages

ULTRA HIGH LUMENS

62Pcs of Philips SMD5050 are adopted, Up to 160lm/W Max power 300W with less current drived. More stable lighting performance without lumens decline.

PERFECT LIGHTING DISTRIBUION

Bat wing lighting distribution with more smooth performance, covering wider and longer distance.

MORE BACKUP

it is capable to provide 3~4 days as automony depending on different lighting modes. 4~5 hours to full charge the battery with big solar panel input. Ensuring constant lighting even in rainy season or in winter time.

ALUMINIUM BODY

Aluminium die casting body. Thick materials offering a stale and durable lighting fixture which will benifits led and battery lifetime for a better performance.

WIRELESS INTELLIGENT CONTROL SYSTEM

Intelligent control system is avaible based on 4G technology, Changing lighting working modes or monitoring light status or battery status can be realized via mobile / Ipad / computer anywhere.

Product Specifications

LIGHT FIXTURE	T6	T8	T10	T12
LED power	60W	80W	100W	120W
Luminous flux (Min)	**>8,800lm**	**>10,800lm**	**>12,800lm**	**>15,800lm**
LUMILEDS SMD5050	62Pcs 5W/led	62Pcs 5W/led	62Pcs 5W/led	62Pcs 5W/led
Pole height	8 ~ 10 meters	8 ~ 12 meters	8 ~ 14 meters	10 ~ 14 meters
CCT range	4000K / 5700K (tolerance ±300K)			
CRI	>85			
Beam angle	143 *70 degrees			
Lens material	PMMA			
Fixture size	800*310*116MM			
Fixture material	aluminium die casting			
Fixture color	RAL 7045 (light gray)			
IP rate	IP67			
Motion sensor	Microwave sensor			
Installation size	φ60mm			
Connector & cable	2.5mm2 with MC4 connectors			
Working temp.	-20℃ ~ +70℃			
Warranty	5 years			

BATTERY PACK				
Battery type	LifePO4 (Lithium iron phosphate battery)			
Battery capacity	**666WH 25.6V**	**832WH 25.6V**	**1000WH 25.6V**	**1165WH 25.6V**
Quality level	Brand new A Class			
Charge time	5 hours			
Discharge time	>24 hours			
Battery lifetime	2000 cycles			
D.O.D	100%			
Autonomy	2 ~ 3 days			
BMS	Built-in			
Over-DV	23.0V			
Over-DRV	25.6V			
Over-CV	29.2V			
Over-CRV	26.4V			

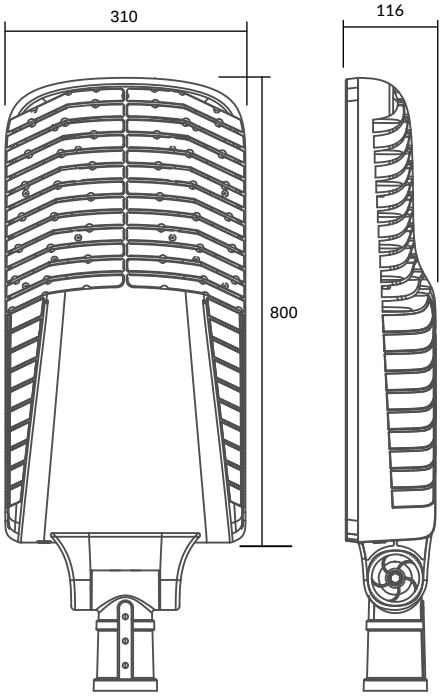
LifePO4 Battery Pack

SOLAR CHARGER				
Charge mode	MPPT			
System voltage	24V			
Ouput current	1.0A ~ 4.0A settable			
Efficiency	>98%			
Setting method	by remote control			
Installation method	built-in			
Operating temp.	-40℃ ~ +80℃			
IP rate	IP68			
Solar cylinder module	300W 18V	420W 18V	560W 18V	560W 18V
Regular solar panel	150W 18V	200W 18V	260W 18V	300W 18V
Certificates	CE, ROHS, FCC, IP67, LM80, COC, IK10,LM79,SABER,CB			

MPPT Solar Charge Controller + Remote

Internal Structure

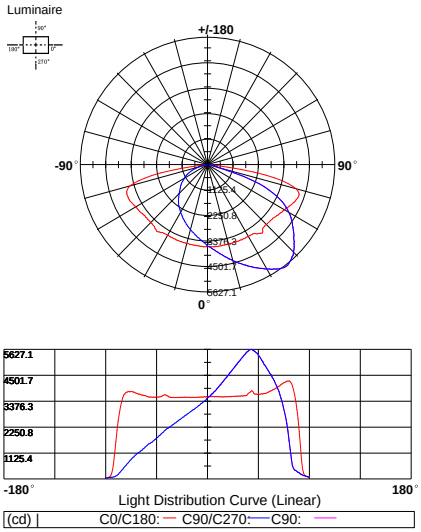
Light Head Dimention



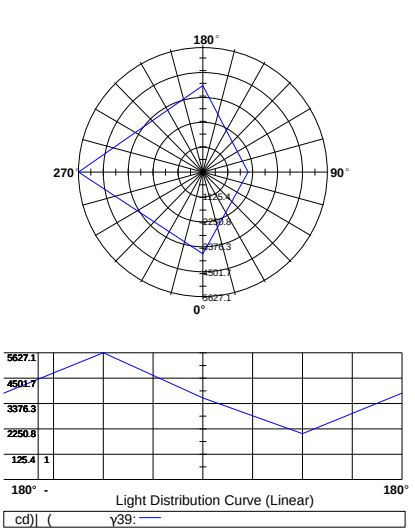
Unit : mm

Light Performance

Light Distribution Curve [Unit: cd]



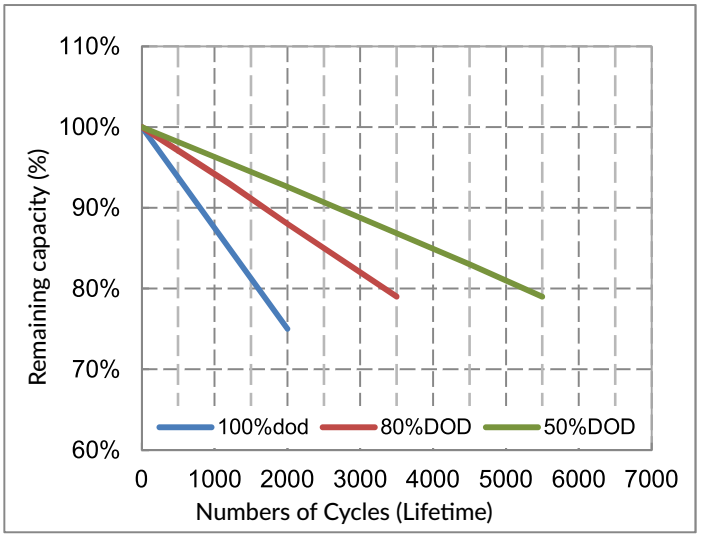
Max Plane Light Distribution Curve [Unit: cd]

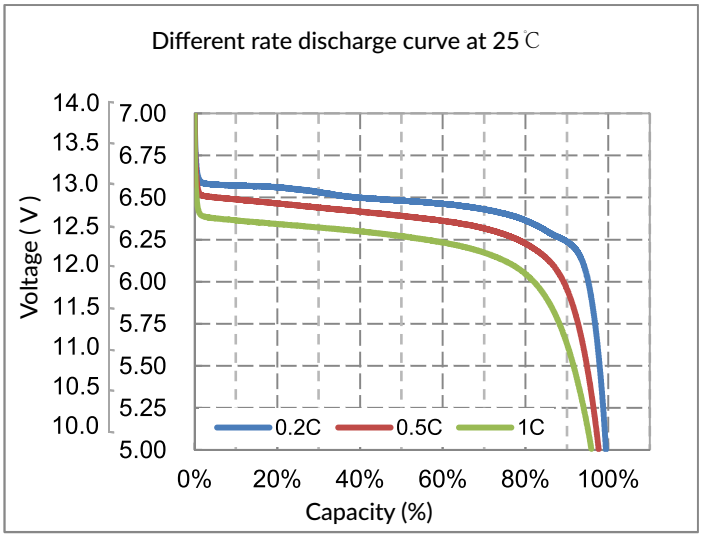


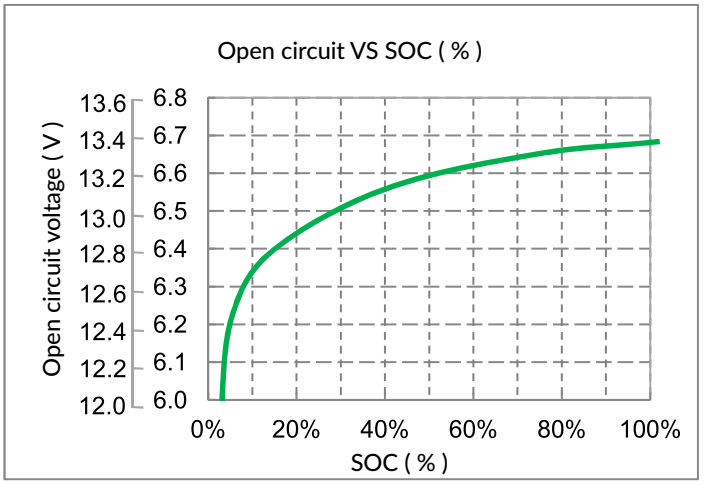
KEY ADVANTAGES

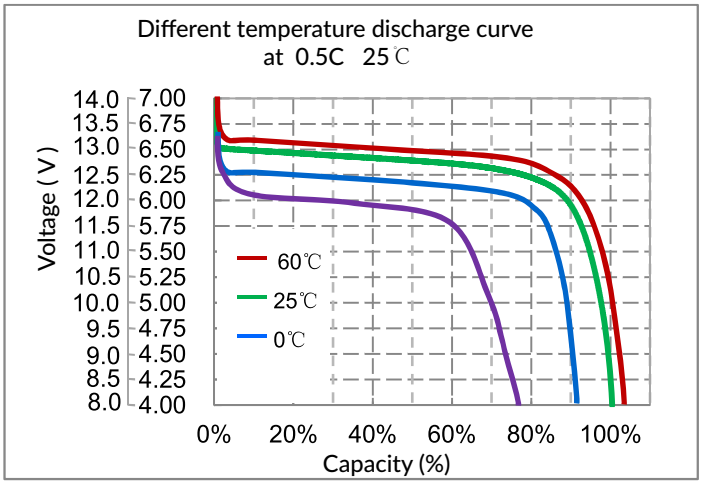
- Lithium Iron Phosphate (LiFePO4) Battery
- Safest lithium chemistry with high energy density
- Built-in automatic protection for over-charge, over djixharge, over current and over temperature
- Efficient & long-lasting up to 4000+ cycles DOD 50%
- >2000 cycles @0.2C, Charge/Discharge at 100% DOD,
- Internal cell balancing.
- Wide temperature range: -20℃ ~ 70℃
- Maintenance free after installation
- Cost effective

Test Performance of LifePO4 Battery









Intelligent Control System

System Introducution

LARAWAN wireless street lighting system with optimized management and efficiency. Wireless communication uses larowan-based wireless devices which allow more efficient street lamp system management, thanks to an advanced interface and control architecture. It uses many sensors to control and guarantee the optimal system parameters; the information is transferred in single to multi-points using Lara (Long Range) protocal .and is sent to a control terminal used to check the state of the street lamps and to take appropriate measures in case of failure. The system allows substantial energy savings with increased performance and maintainability.

LARAWAN gateway

INTRODUCTION

WE-GW-10 gateway is a communication gateway based on LoRaWAN protocol standard. It is a key node device for building low-power WAN. The gateway has full-duplex data forwarding capability, which can meet the requirements of high communication distance and low power consumption and networking requirements for terminal devices with multiple entry points and it also supports multiple style deployments. It meets the operating temperature of -40~80℃and supports industrial-grade communication equipment working in various harsh environments. It is applied to the access of diverse terminals in different scenarios.

LARAWAN gateway has more stable controling performance compared with 4G technology , In 4G system, all solar light poles are transmit signals to each other in the way of " hand by hand" . The signal transmission are always delayed or "offline" when the 4G signal is weak especially in remote areas. While In LORAWAN system , Each light is directly transmitting signals to LORAWAN gamteway directly without any Intermediary which is ensuring stable and instant communication for monitoring or performing operations.

Each LAROWAN gateway can control up to 200 units of light device terminals, One project can compose multi gateways if lights quantity are more than 200 units . 12V~36V wide voltage DC input. Follow LoRoWAN wireless transmission protocol to support transmission and reception of full-duplex LoRa communication.

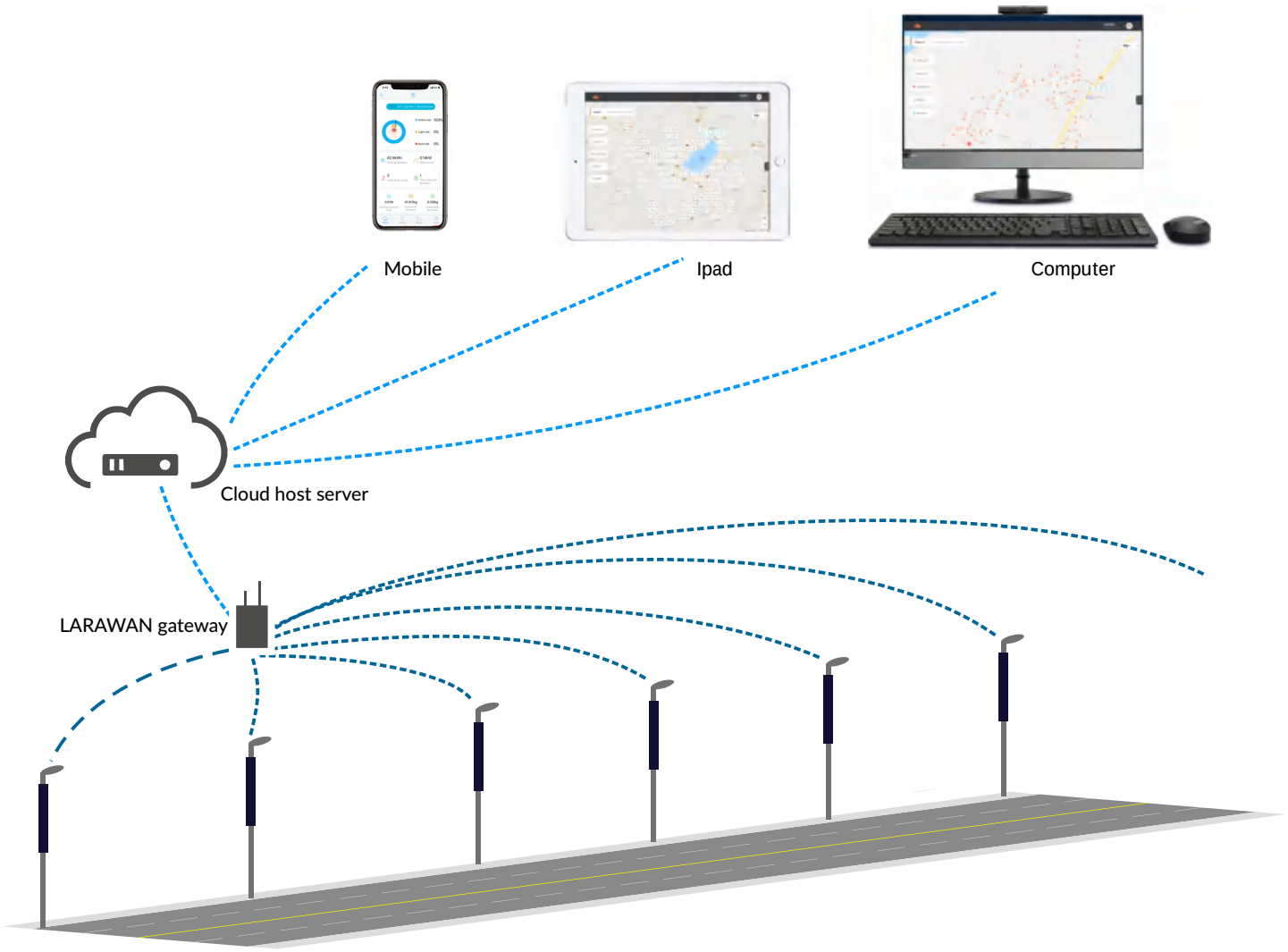
2. FEATURE & PERFORMANCE

- Support 8 channels, accessible nodes numberis up to 2000
- Effective lightning protection grounding protection
- Communication parameters:
- Operating frequency: CN470MHz/US915MHz/EU868MHz
- Channel: 8 125KHz, rate adaptive, support for spread factor SF7-SF12
- Transmit power: < 23dBm
- Receive sensitivity: > -142.5dBm
- Transmission distance: city: 2Km line of sight: 15Km
- Access method: LAN, 2G/3G/4G
- Data Protocol: UDP/TCP/MQTT
- LoRa antenna: T-NC female interface
- 4G antenna: T-NC female interface
- Supply voltage: 12V~36V Recommended: 12V/1A
- Power consumption: <1W
- Working temperature: -40~80°C
- Network / power interface: RJ45 + DC
- Waterproof rating: IP66
- Weight: 2600g

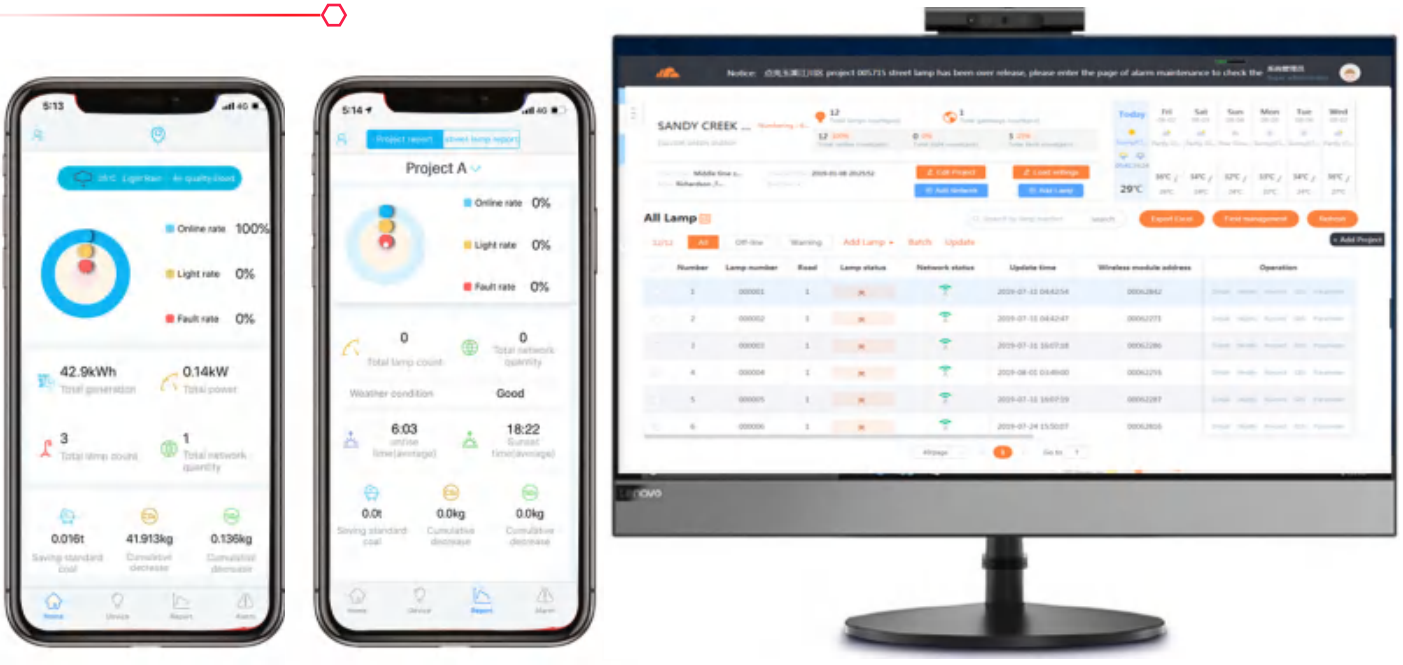
3. **SOLAR CHARGE CONTROLLER WITH ANTENNA**

- System voltage : 12V / 24V
- Power range : 20W~120W
- Charge mode : MPPT
- Solar panel voltage : <60V
- Data record : 7 days
- Efficiency : >97%
- Light sensor delay : 1~40mins changeable
- Working temperature: -40~80°C
- Waterproof rating: IP68

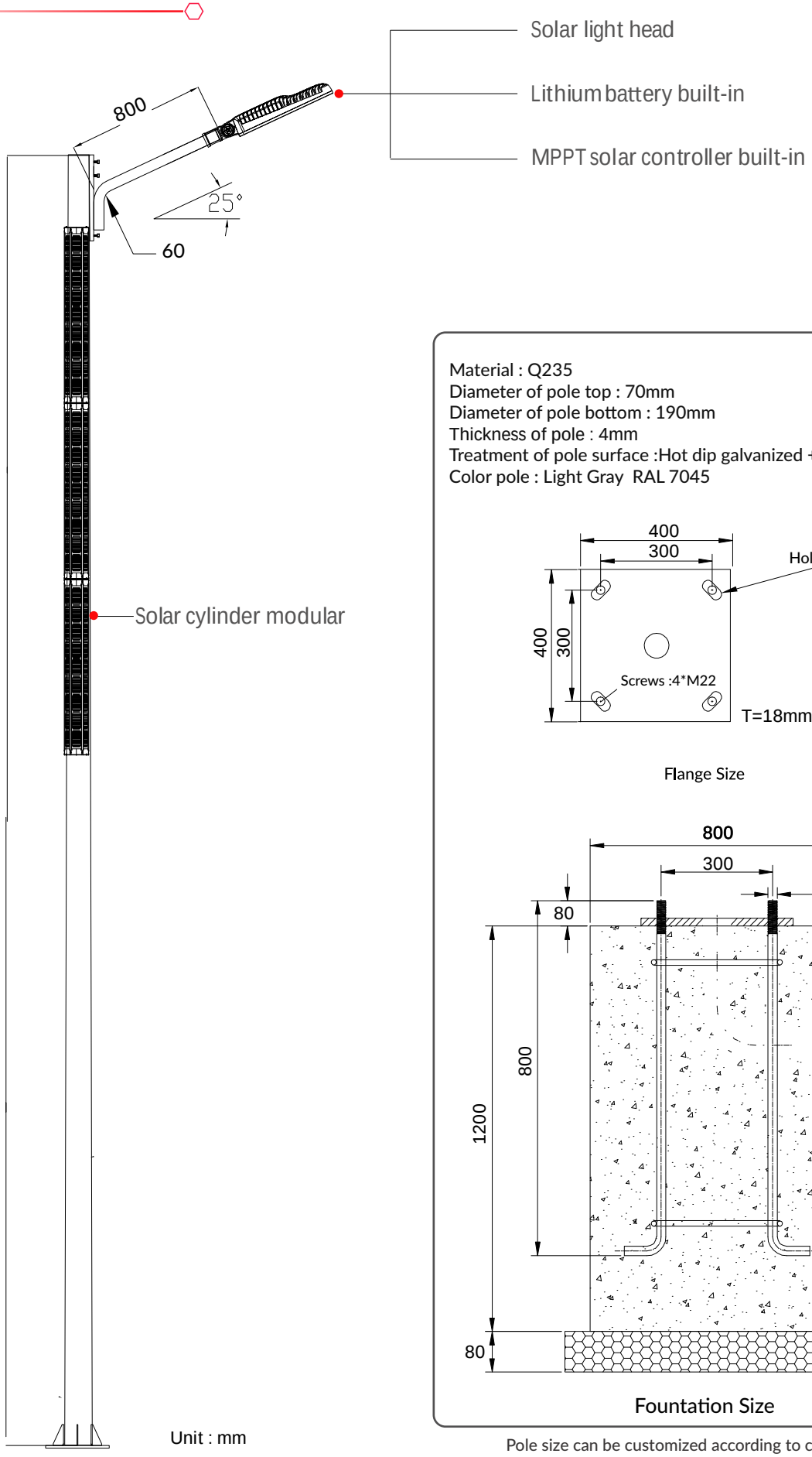
Intelligent Control System



Software interface



Structure of Vertical Solar Pole



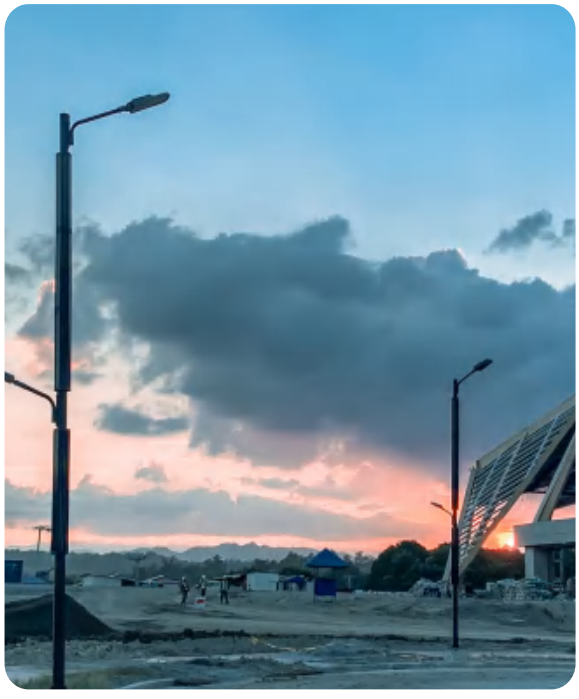
Material : Q235
Diameter of pole top : 70mm
Diameter of pole bottom : 190mm
Thickness of pole : 4mm
Treatment of pole surface :Hot dip galvanized + powder coated
Color pole : Light Gray RAL 7045

Flange Size

Fountation Size

Pole size can be customized according to client's request.

Project Photos



SolarWrap

Vertical Solar LED Street Light 2019

E-AblePower®
Technology

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