



TS-232

## 分体式简约太阳能路灯

Split Simple Solar  
Street Lighting

- 铝合金拉伸灯体，铝合金拉伸灯杆，模组式光源模块配超白钢化玻璃
- 高透光PC透镜，具有高视觉舒适性和均匀配光透镜，供多种不同配光选择
- 灯具采用LED模组，安装更换很方便
- 无生物蓝光危害风险，符合EN62471: 2008标准
- 采用通常用于电动客车的LiFePo<sub>4</sub>电池
- 防紫外线聚氨酯粉喷涂表面，耐腐蚀可以达1000小时以上
- 分体化包装，节约成本，运输方便
- 所有外部螺钉均为304不锈钢材质

- Aluminum alloy tensile lamp body, aluminum alloy tensile lamp pole, modular light source module with ultra-white tempered glass.
- Optics with PC lens with high visual comfortable and uniform lighting distribution, multiple light distribution options.
- LED module is used inside, which is easy to install and replace.
- No photo-biological risk,(no risk linked to infrared,blue light and UV radiation) in accordance with EN 62471:2008.
- With LiFePO<sub>4</sub> battery which usually apply for electric bus.
- Surface anti-ultraviolet pure polyester powder painting, Corrosion resistance can be more than 1000 hours.
- Separate packaging, cost saving, convenient transportation.
- All external screws are made of 304 stainless steel.

## 远程控制系统和智能系统可选

Remote control system &amp; Smart intelligent system available upon request



节能控制系统  
Energy saving with  
remote control system



物联网智能系统  
Network for smart  
intelligent system

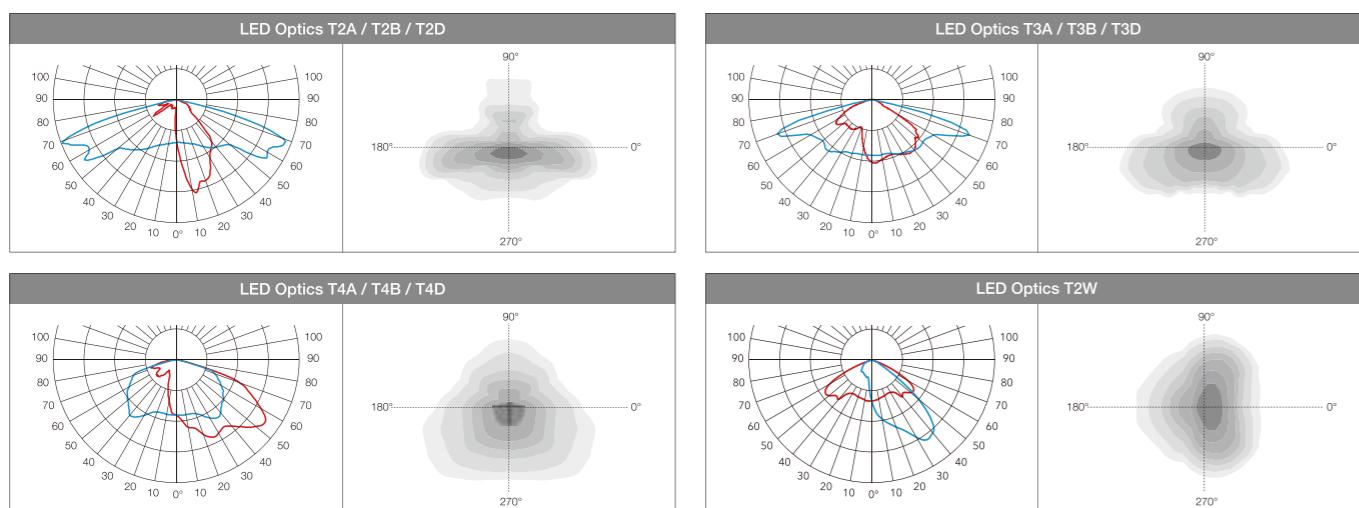


遥控器  
Remote control



TS-232

## 应用透镜 Optics application



## TS-232

## Split Simple Solar Street Lighting

## Technical Data

## SOLAR-General

Autonomy Information : 2 days  
Working mode : 4hrs - 100%, 2hrs - 50%, 5hrs - 30%

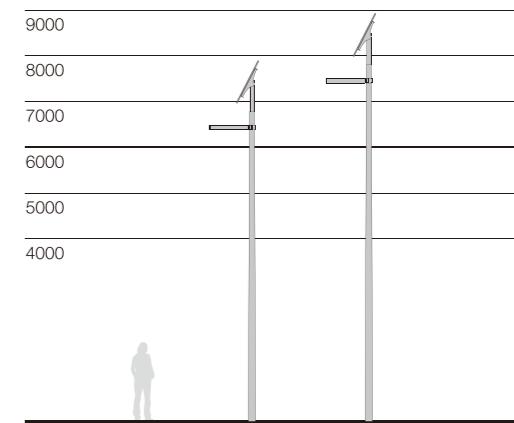
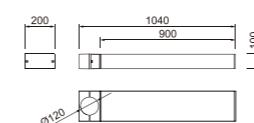
Model 灯具型号	Power 功率	Solar PV 太阳能板	LiFePO <sub>4</sub> Battery 电池	Luminous 光通量	LED Chips LED灯珠
TS-232LED45	45W	18V/130W	538WH/12.8V 42AH	6750 lm	5050*32pcs

## SOLAR-General

Autonomy Information : 2 days  
Working mode : 2hrs - 100%, 2hrs - 50%, 7hrs - 30%

Model 灯具型号	Power 功率	Solar PV 太阳能板	LiFePO <sub>4</sub> Battery 电池	Luminous 光通量	LED Chips LED灯珠
TS-231LED60	60W	18V/130W	538WH/12.8V 42AH	9000 lm	5050*32pcs

## 产品尺寸 Product dimensions

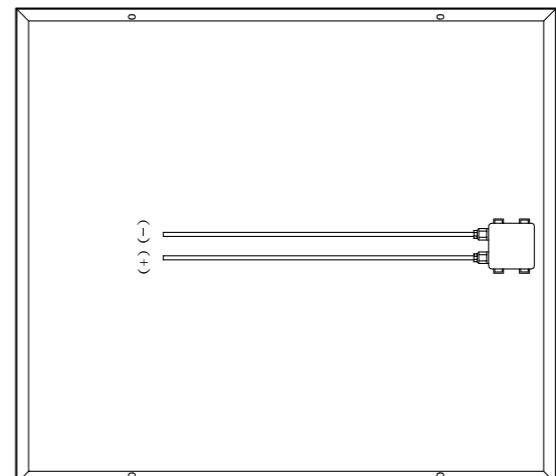
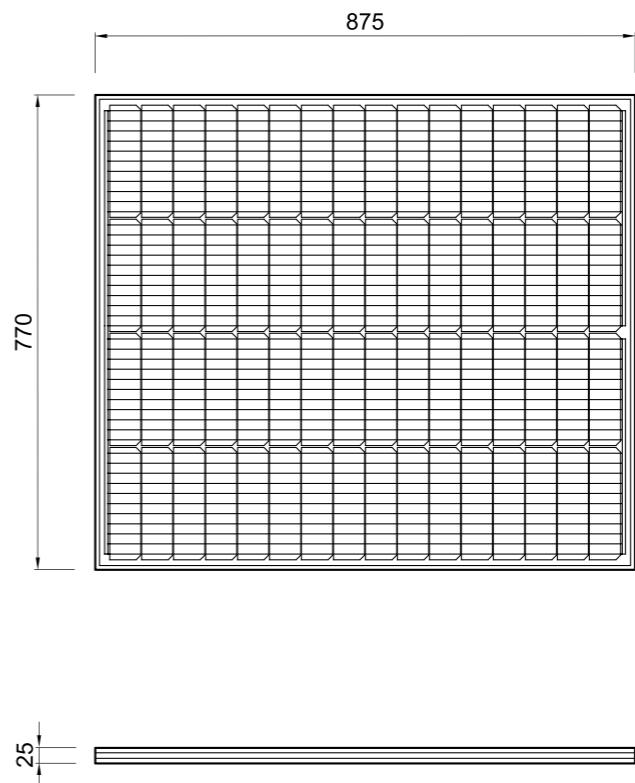


## 太阳能板参数 Solar panel parameters



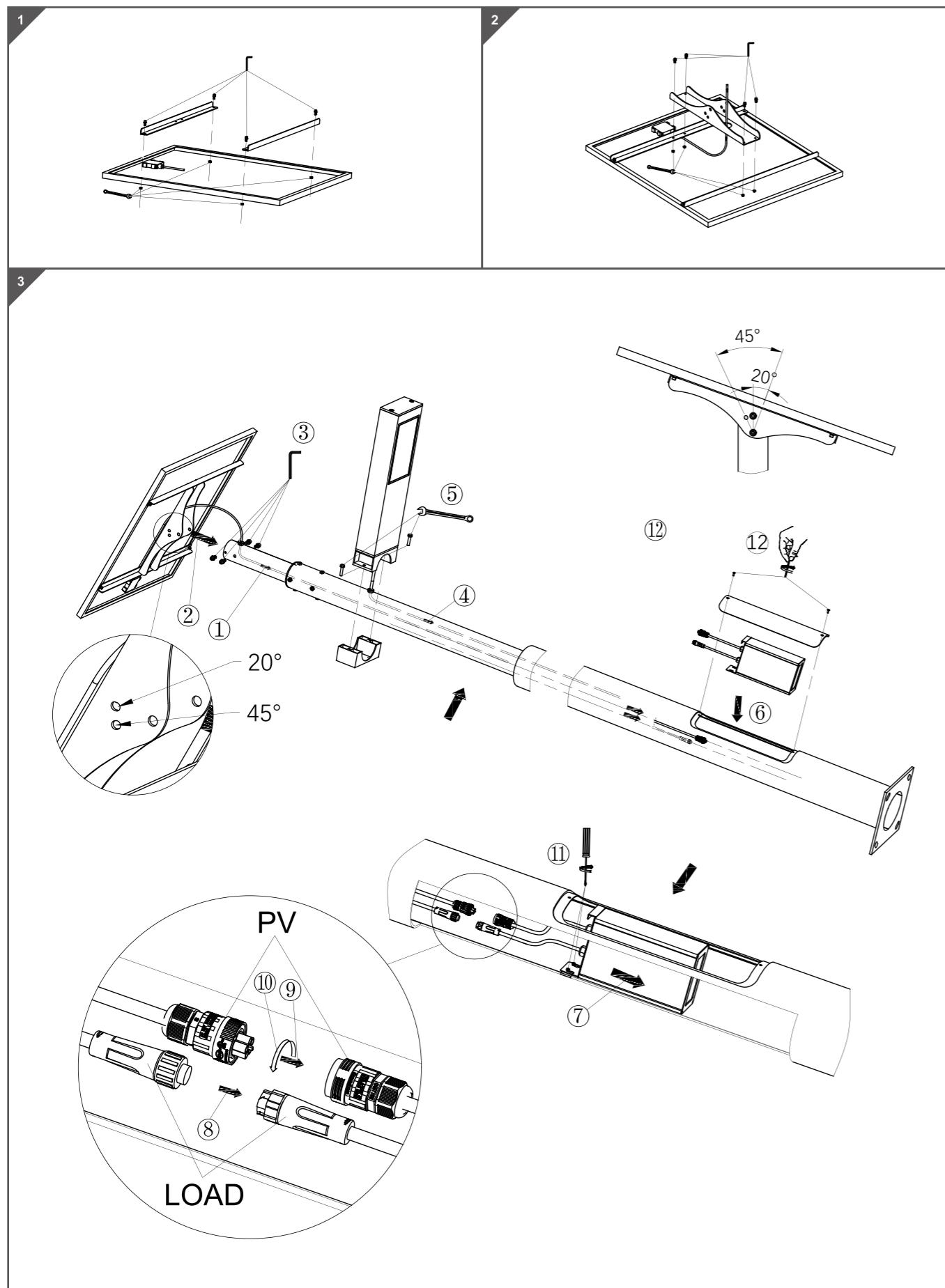
名称 Name	单晶黑底玻璃组件 monocrystalline silicon black base glass assembly
最大峰值功率 Maximum Peak Power	130W( $\pm 3\%$ )
开路电压 Open-circuit voltage	21.50V
最大工作电压 Maximum Power Voltage	18.45V
最大工作电流 Working current	7.05A
短路电流 Short-circuit current	7.45A
太阳能电池片效率 Solar cell efficiency	21.8-22.8%
电池片种类 Type of battery	单晶硅 monocrystalline silicon
尺寸 (mm) Dimension	875*770*25
工作温度 Operating temp	-40°C~85°C
工作环境湿度 Working ambient humidity	20%~98%(RH)
寿命 Lifetime	25 years
质保 Warranty	5 years

## 太阳能板尺寸 Solar panel size

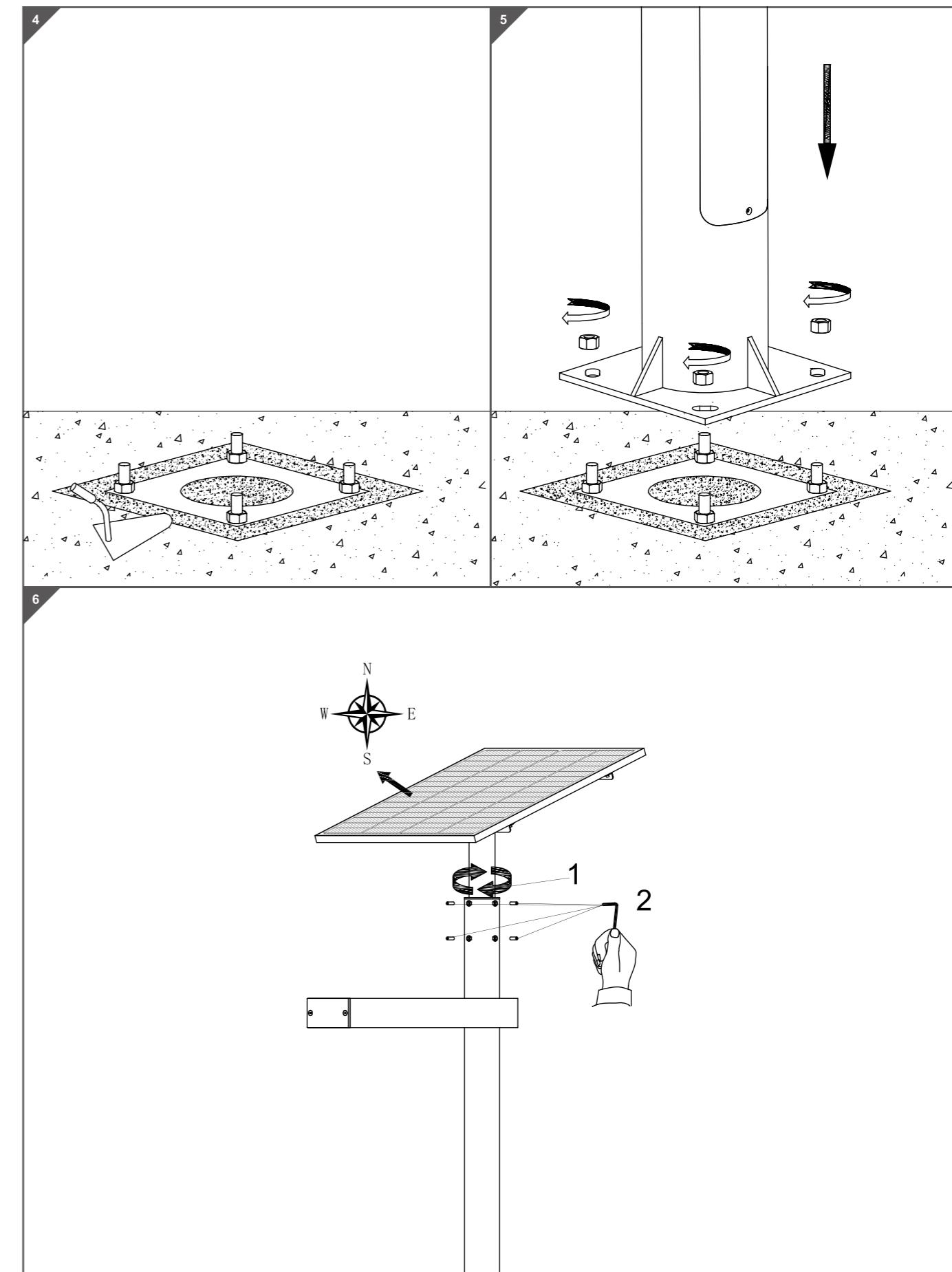


18V130W Monocrystalline silicon  
black base glass assembly

## 安装说明 Installation instructions



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## 防水型MPPT控制恒流一体机 Waterproof MPPT control constant current integrated machine

- 采用MovingTrack MPPT最大功率追踪技术，追踪效率更高，速度更快
- 铅酸电池、锂电池通用，运行参数可通过遥控器设置
- 采用ultraGreen功耗控制技术，具有极低的静态功耗和休眠电流

- MovingTrack MPPT maximum power tracking technology, tracking efficiency is higher, faster
- Lead-acid battery, lithium battery universal, operating parameters can be set by remote control
- ultraGreen power control technology with extremely low static power consumption and hibernation current

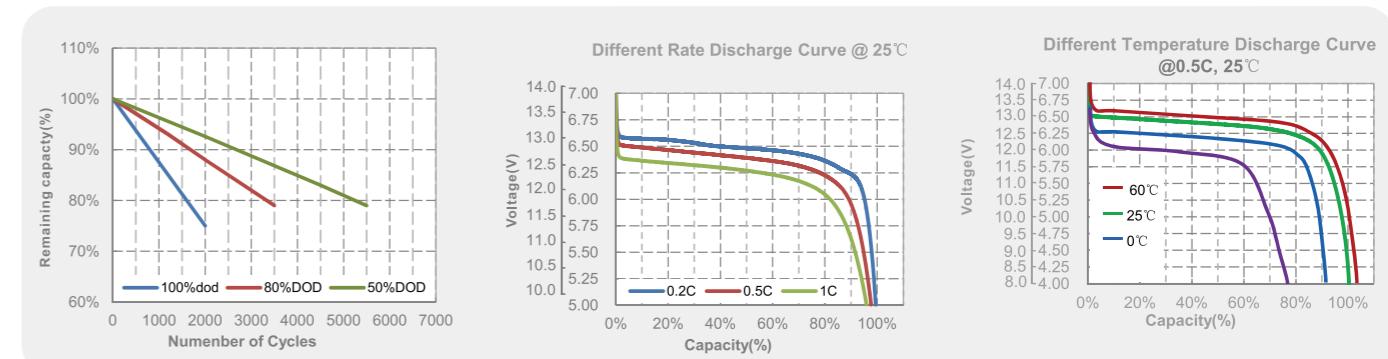


参数名称 Item	参数值 Parameter value	参数可调 Adjustable
型号 Mode	DM60	
控制器类型 Controller Type	-R: 红外遥控; -W: 2.4G无线遥控; -C: 带485通讯接口 -R: Infrared remote control; -W: 2.4G remote control; -C: With 485 communication interface	
系统电压 System Voltage	12V	
静态功耗 Static power consumption	-R: ≤5mA -W: ≤20mA	√
休眠功耗 Sleep power consumption	≤1mA	
负载电流 Load current	50mA ~ 3000mA	
负载电压 Load voltage	15V ~ 50V	
负载最大功率 Maximum load power	60W/12V	
负载转换效率 Load conversion efficiency	85%-96% (典型效率95%) /85%-96% (Typical efficiency 95%)	
负载电流精度 Load current accuracy	≤3%±30mA	
太阳能最大输入功率 Maximum solar input power	130W/12V	
最大充电电流 Maximum charging current	10A	
太阳能最大输入电压 Maximum solar input voltage	≤50V	
MPPT追踪效率 MPPT tracking efficiency	> 99%	
充电转换效率 Charge conversion efficiency	85%-98% (典型效率97%) /85%-98% (Typical efficiency 97%)	
超压电压 overvoltage	PB-16.0V; LI-Overcharge voltage+2V; x2,24V System	
充电限制电压 Charge limiting voltage	PB-15.5V; LI-Overcharge voltage+1V; x2,24V System	
过放电压 Overdischarge voltage	8.5V~17.0V; x2,24V System	√
过放返回电压 Overplay the return voltage	8.5V~17.0V; x2,24V System	√
光控电压 Light control voltage	3V~11V; x2,24V System	√
光控延时 Light control delay	0s~60s/2min~60min	√
工作温度 Operating temperature	-35°C~+65°C	
防护等级 Protection degree	-IP67	
重量 weight	260g	
尺寸(mm) dimension	80*82*22.6	
质保 Warranty	2 years	

## 长寿命周期电池 Durable &amp; Long Lifetime Battery

- 磷酸铁锂电池
- 最安全的锂化物，高能量密度
- 内置自动保护，可防止过充电，电流过大和温度过高
- 高效&持久，可达4000多个循环 DOD 80%
- >2000个循环@0.2C, 充电/放电在100% DOD
- 宽温度范围:-20°C~70°C
- 安装后免维护

- Lithium Iron Phosphate (LiFePO4) Battery
- Safest lithium chemistry with high energy density
- Built-in automatic protection for over-charge, over discharge, over
- Efficient&long-lasting up to 4000+cycles DOD 50%
- >2000 cycles @0.2C, Charge/Discharge at 100% DOD
- Wide temperature range:-20°C~60°C
- Maintenance free after installation



参数名称 Item	参数值 Parameter value
电池容量 Battery capacity	538WH/12.8V 42AH
电池类型 Battery Type	LiFePO4 Battery Pack
循环寿命 Lifetime in cycles	2000 cycles
单元类型 Cell Type	32700 3.2V/6000mAH
电池单元的数量 Quantity of battery cell	7P4S
充电模式 Charging mode	Constant Current Constant Voltage
充电电压 Charge voltage	14.6V
放电截止电压 Discharge Cut-off Voltage	≥8.0V
最大连续充电电流 Max. Continuous Charging Current	7.0A (0°C~65°C)
存储温度 Storage Temperature	-10°C~45°C
工作温度 operating temperature	-20°C~70°C