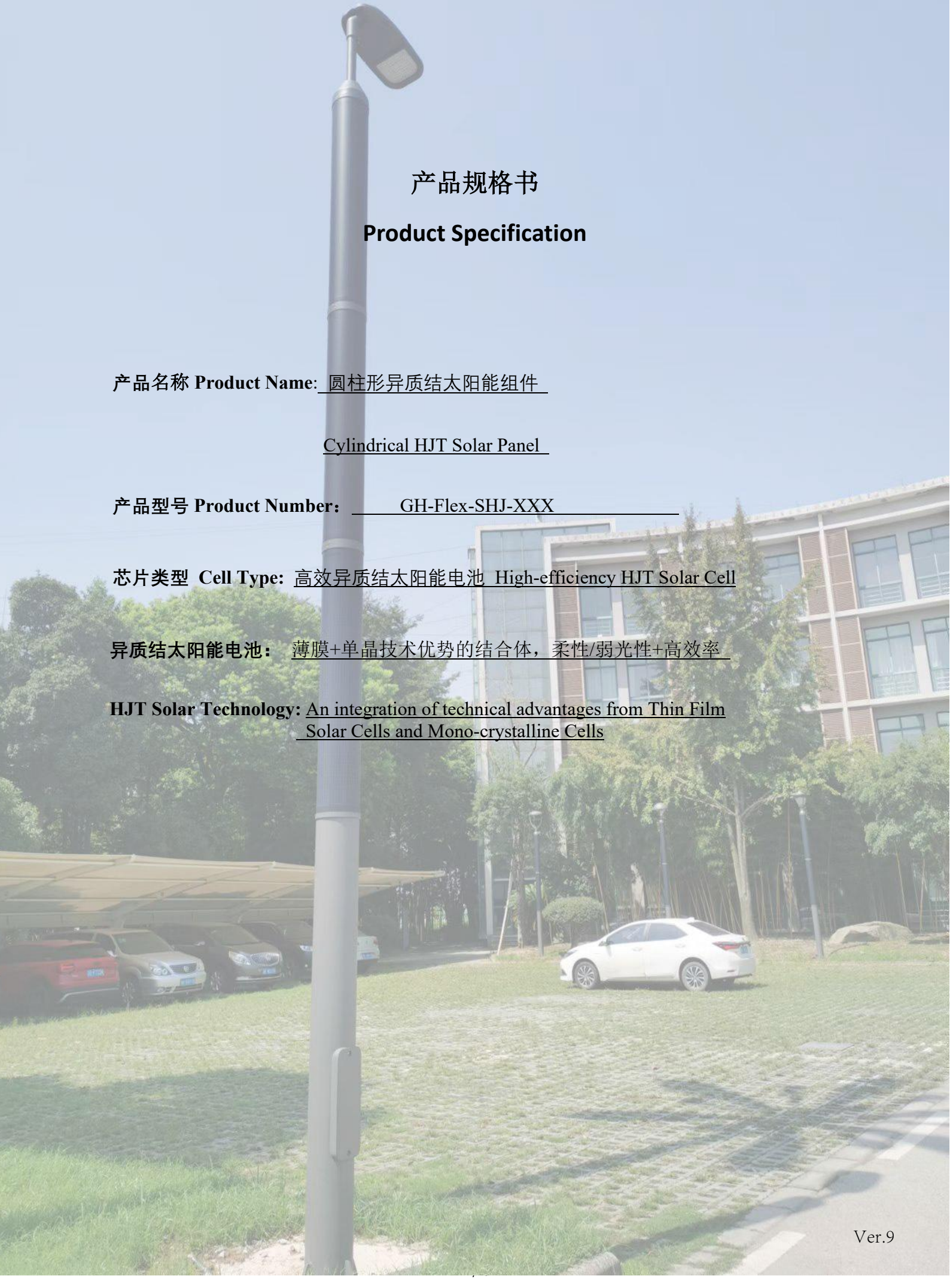


产品规格书

Product Specification

产品名称 Product Name: 圆柱形异质结太阳能组件

Cylindrical HJT Solar Panel

产品型号 Product Number： GH-Flex-SHJ-XXX

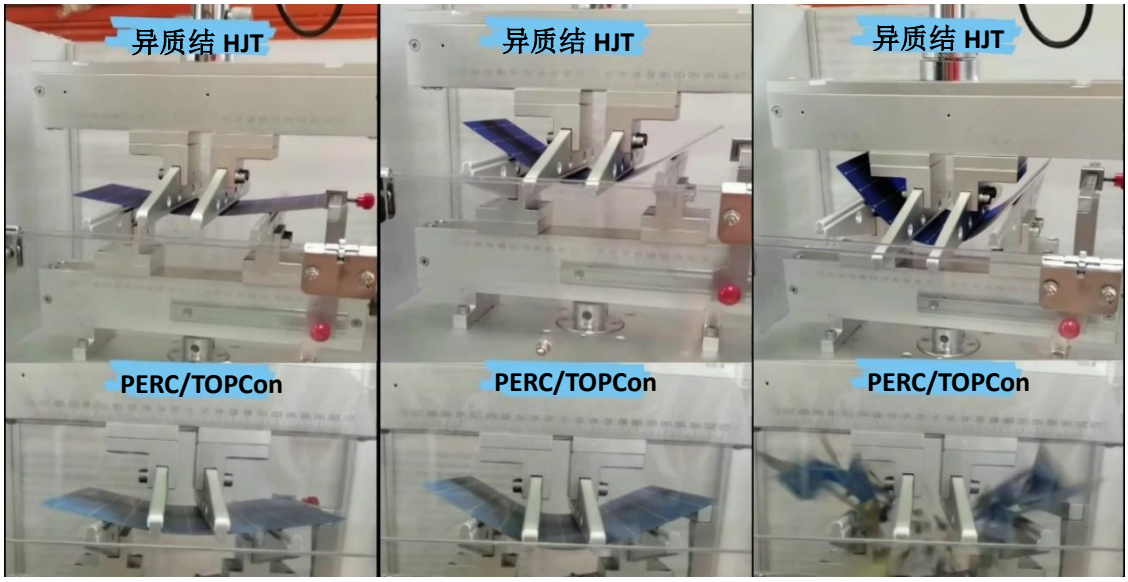
芯片类型 Cell Type: 高效异质结太阳能电池 High-efficiency HJT Solar Cell

异质结太阳能电池： 薄膜+单晶技术优势的结合体，柔性/弱光性+高效率

HJT Solar Technology: An integration of technical advantages from Thin Film Solar Cells and Mono-crystalline Cells

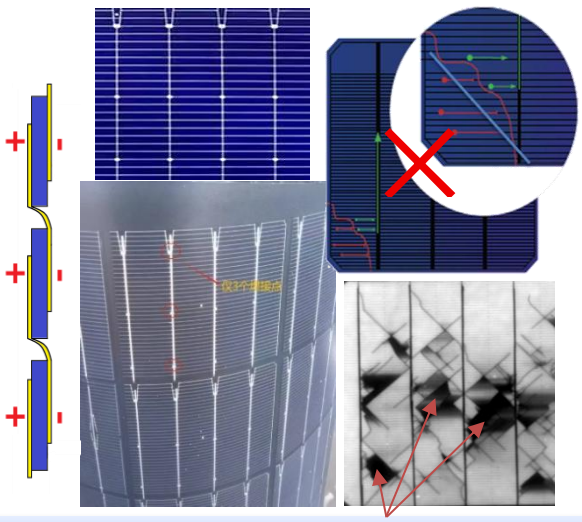
【产品特征 Features】

- 采用高效异质结单晶太阳能电池，电池片效率≥24. 5%，具有良好的弱光响应和优异的功率温度系数。High-efficiency Hetero-junction Solar Cells (efficiency≥24.5%) are laminated inside with excellent weak-light performance and superior Power Temperature Co-efficient.
- 异质结太阳能电池，因其“汉堡包”对称式结构，是弯曲性最好的晶硅类太阳能电池。Heterojunction solar cells exhibit the best flexibility among crystalline silicon-based solar cells, thanks to their burger-like symmetric structure..



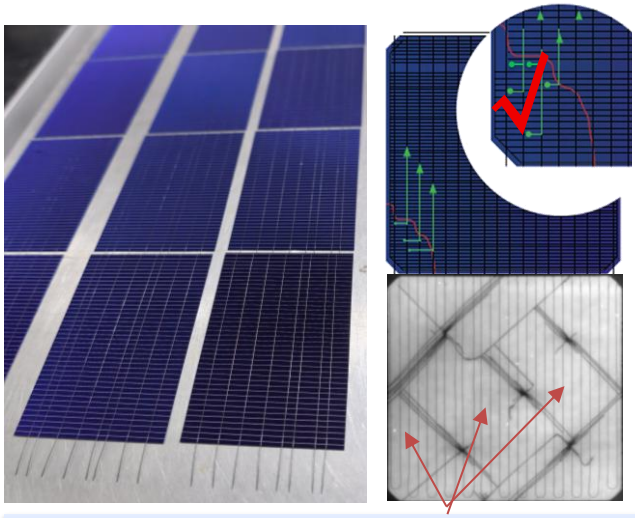
- 独特的 Super-wire 柔性导线互联技术，优良的抗隐裂性能，电流导出面积较传统焊带互联技术增大 40 倍。极端条件下非粉碎性破坏，太阳能组件依旧发电工作。Unique Super-wire Flexible Interconnection Technology ensures an excellent ability to resist cell crack and impact force. Current conduction area increased by 40 times compared to traditional ribbon interconnection technology. Even under extreme conditions, solar cells and the panel still generate power as long as they are not destructively damaged.

传统焊带互联 Conventional PV Ribbon Connection



黑色为失效区域，无法发电；Black failure area, no power output

Super-wire 柔性导线互联 Super-wire interconnection



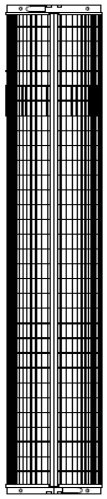
暴力破坏后，几乎无失效区域；Almost No failure area after damage.

- 360° 吸收太阳光，6~10 路并联设计，输出电压稳定，充电效率高。It can absorb sunlight from 360 degrees. Its unique 6~10 parallel circuit design ensures stable output voltage and high charging efficiency.
- 单节高度 1.33 米，Vmp 电压 17.7V 和 35.4V。有整圆柱和半圆柱可选，适配不同直径的灯杆，充分利用灯柱长度空间，可多节并联，灵活匹配系统功率；Each cylinder measures 1.33 meters in height with a Vmp of 17.7V or 35.4V. It is available in both full-cylinder and semi-cylinder options to fit poles of different diameters, making full use of the pole's length. Multiple Cylinders can be connected in parallel for flexible system power matching.
- 外层为双面涂覆复合材料（FFC/PET/FFC），抗紫外老化，透过率≥90%，耐候性强，耐磨、耐湿热、耐盐碱; The outer layer is a double-sided coated composite material (FFC/PET/FFC), featuring UV resistance, ≥90% transmittance, strong weatherability, and resistance to abrasion, damp heat, and salt-alkali corrosion.
- 太阳能组件为全黑色，外观美丽。垂直化一体安装，抗台风、风沙、积雪，不易沉积灰尘、树叶和鸟粪，降低组件清理频率；The all-black solar module offers an aesthetic appearance. Its vertical-integrated installation provides resistance to typhoons, sand, and snow accumulation, mitigates buildup of dust, leaves, and bird droppings, thus reducing cleaning frequency.
- 发电效率高，可实现自给自足，兼顾气候保护与经济效益。灯杆 100%利用太阳能发电，实现了能源的自发自用，节省电网连接和电网基础设施建设的成本。With high power generation efficiency, these vertical solar light poles can be entirely self-sustaining. They can be 100% solar powered and operated completely off-grid, saving costs of grid connection and grid infrastructure.

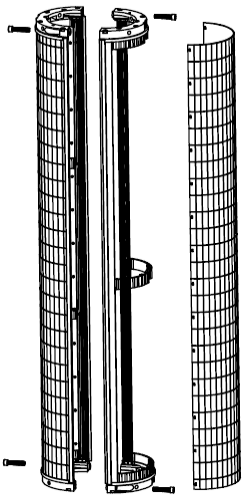
【产品类型　Product Type】

✓ **整圆柱**为带 PVC 套筒的太阳能组件，1 米长 RVV 线；客户可直接将该套筒组件套在灯杆上，使用卡箍固定。The full-cylinder is a solar module integrated within a PVC-U tube, pre-equipped with a 1-meter RVV cable. It is designed for direct mounting onto the pole and fixed in place with mounting rings.

✓ **半圆柱**是经二次封装定型的太阳能组件，耐冲击能力更强，耐候性更强；具有更灵活的安装方式，安装时不需要放倒灯杆，尤其适用于改造型路灯项目。The semi-cylinder undergoes a secondary encapsulation process, resulting in higher impact resistance and durability. For retrofit projects, it can be directly installed around the pole on the site.



整圆柱　Full Cylinder



半圆柱　Semi-Cylinder

【典型规格 Typical Specifications】

方式 1：整圆柱 Type 1:Full Cylinder

圆柱组件规格 Cylinder Model	GH-Flex-SHJ-120（OD186mm）		GH-Flex-SHJ-120（OD206mm）		GH-Flex-SHJ-161（OD256mm）		GH-Flex-SHJ-201（OD321mm）	
峰值功率 Pmax（±5%）	120W		120W		161W		201W	
峰值功率电压 Vmp（V）	17.7	35.4	17.7	35.4	17.7	35.4	17.7	35.4
峰值功率电流 Imp（A）	6.81	3.40	6.81	3.40	9.09	4.54	11.36	5.68
开路电压 Voc（V）	22.14	44.28	22.14	44.28	22.14	44.28	22.14	44.28
短路电流 Isc（A）	7.35	3.67	7.35	3.67	9.80	4.9	12.25	6.12
圆柱内径 Cylinder ID	174 mm		192mm		240mm		305mm	
圆柱外径 Cylinder OD	186 mm		206mm		256mm		321mm	
圆柱重量 Cylinder Weight	4.8Kg		5.9Kg		11Kg		18Kg	
圆柱长度 Cylinder Length	1355mm（1330mm+12mm+12mm）（含卡箍 including mounting Rings）							
工作温度 Working Temperature	-40°C~85°C							
峰值功率温度系数 Power Temp Co-efficient (%/°C)	-0.27							
短路电流温度系数 Current Co-efficient (%/°C)	0.04							
开路电压温度系数 Voltage Co-efficient (%/°C)	-0.26							

方式 2：半圆柱 Type 2: Semi-Cylinder

圆柱规格 Cylinder Model		GH-Flex-SHJ-120 (OD200)	GH-Flex-SHJ-161 (OD260)	
半圆柱并联 Semi-Cylinder in parallel connection	峰值功率 Pmax（±5%）	60W*2	80W*2	
	峰值功率电压 Vmp（V）	17.7	17.7	35.4
	峰值功率电流 Imp（A）	6.8	9.32	4.66
	开路电压 Voc（V）	22.14	22.14	44.28
	短路电流 Isc（A）	7.34	10.08	5.04
2 个半圆柱安装一起 Combination of Two Semi-cylinders	半圆柱内径 Cylinder ID	195mm	250mm	
	半圆柱外径 Cylinder OD	200mm	260mm	
	半圆柱长度 Length	1382mm（1330mm+25.1mm+25.1mm）（含半圆卡箍 including mounting rings）		
	重量 Weight	7kg	8.5kg	
工作温度 Working Temperature		-40°C~85°C		
峰值功率温度系数 Power Temp Co-efficient (%/°C)		-0.27		
短路电流温度系数 Current Co-efficient (%/°C)		0.04		
开路电压温度系数 Voltage Co-efficient (%/°C)		-0.26		

【产品照片 Product Photo】

整圆柱及卡箍 Full Cylinder and Mounting Rings

半整圆柱及结构件 Semi-Cylinder and Fittings

【典型应用 Typical Application】

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Address:No.26 Wangwu Road, Wuzhong High-tech Development Zone,Suzhou,Jiangsu,China 215128

【典型案例 Typical Installation】

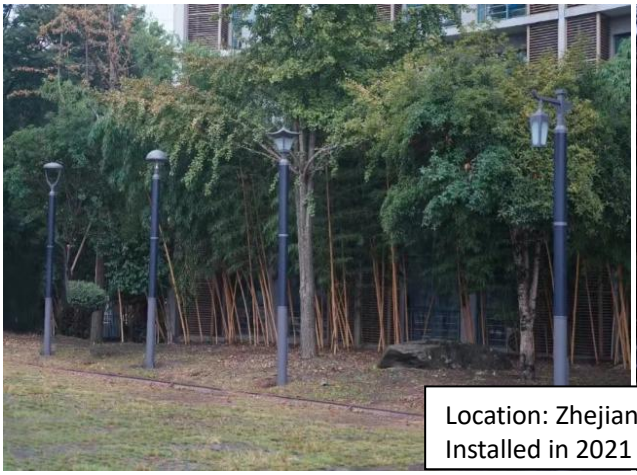
Location: Shanghai Port
Installed in 2021

100% Solar Powered

Location: USA
Installed in 2023

100% Solar Powered

Location: Beijing, China
Installed in 2024



100% Solar Powered

Location: Zhejiang, China
Installed in 2021