

产品规格书

Product Specification

- ◇ 产品名称 **Product Name:** 柔性全黑异质结太阳能组件
Flexible & All-black HJT Solar Panel
- ◇ 产品型号 **Product Number:** GH-HJT-R
- ◇ 芯片类型 **Cell Type:** 高效异质结 High-efficiency HJT Solar Cell
(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%以上，良好的弱光响应和优异的功率温度系数，功率增益 5%-10%以上。

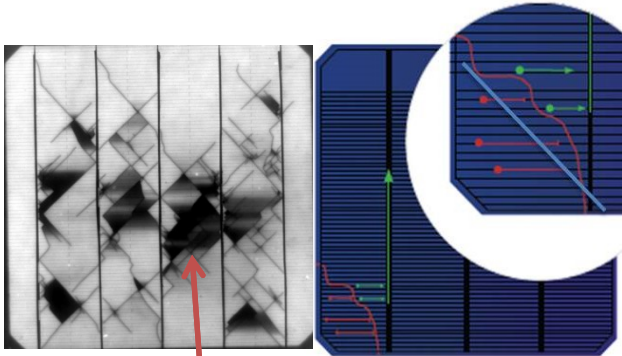
High-efficiency Hetero-junction Solar Cell (efficiency \geq 24%) are laminated inside with excellent weak-light performance and superior Power Temperature Co-efficient, which enable the foldable solar panel to achieve 5-10% more power.

- 独特的 Super-wire 柔性导线互联技术，优良的抗隐裂性能。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 Connection Technology ensures excellent performance to resist micro crack. No PID. Even with extreme conditions, cells and the panel still generate power as long as they are not destructively damaged.

常规焊带互联

Conventional PV Ribbon Connection

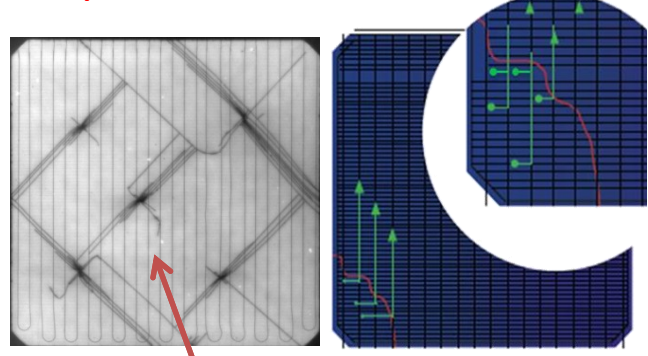


(黑色为失效区域，无法发电)

(Black failure area, no power output)

Super-wire 柔性导线互联

Super-wire Flexible Connection



(暴力破坏后，几乎无失效区域)

(Almost No failure area)

- 采用 ETFE 高分子材料封装，无玻璃、无边框、超薄、轻量化。厚度 1-2.5mm，单位面积重量 1.5-3KG/平方米，只有传统光伏组件的 20-30%，形状和尺寸可定制化设计及生产。

Laminated with ETFE thin film with good abilities to resist low and high temperature, heat, humidity and salt spray. No Glass, no frame, ultra-thin and light-weight. Its thickness is 1.5-2.5mm. Panel's weight is 1.5-3 kilogram per m², which is only 20-30% of conventional glass modules. We offer various designs of shape and dimensions as per customers' requirements.

- 以粘贴的方式直接安装，简单便利，适用于轻质屋顶市场、BIPV、移动能源等应用场景。
Easy and quick installation with the bonding method. No penetration or mounting. Perfect for commercial and industrial Low-load Bearing roofs, BIPV and Transportation application.

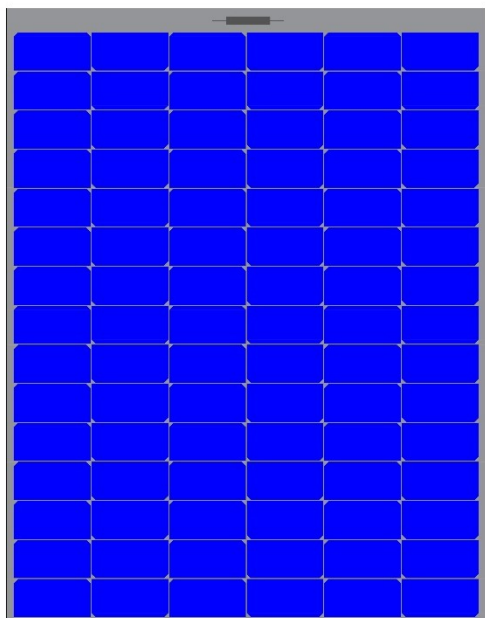
- 可根据客户项目需要，定制全黑色太阳能组件，外观统一；全黑设计满足屋顶安装对于外观的需求。全黑太阳能组件，与屋顶原来颜色浑然一体，适合应用于屋顶和建筑一体化项目。
 All-black colored solar panels can be designed and produced to meet roof surface requirements, and they are most popular for roofs and BIPV projects.

【典型规格 Typical Specifications】

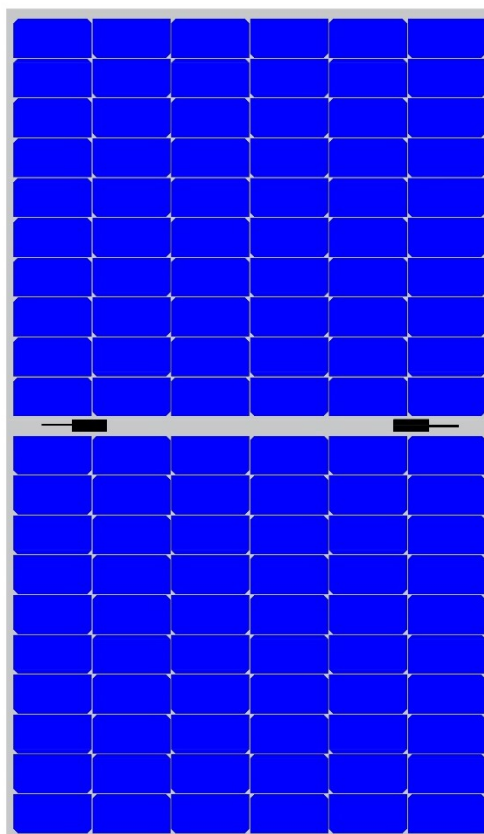
组件规格 Model No.	GH-HJT-R-160	GH-HJT-R-240	GH-HJT-R-321
太阳能电池类型 Solar Cell Type	高效异质结太阳能电池，Super-wire 柔性互联技术 Heterojunction Solar Cell with Super-wire Connection Technology Cell efficiency $\geq 24\%$		
*峰值功率 Pmax (W, $\pm 5\%$)	160	240	321
*峰值功率电压 Vmp (V)	18.12	27.18	36.24
*峰值功率电流 Imp (A)	8.86	8.86	8.86
*开路电压 Voc (V)	22.26	33.39	44.53
*短路电流 Isc (A)	9.29	9.29	9.29
组件尺寸 Panel Dimension	850×980×1.5mm	1268×980×1.5mm	1683×980×1.5mm
组件重量 Panel Weight	2.1Kg	3.2Kg	4.4Kg
接线盒 Junction Box	防护等级 IP 68，配旁路二极管 IP 68 rated with by-pass diode		
电缆 Cables	4.0mm ² 光伏专业电缆，450+450mm Photovoltaic cable 4.0mm ² , (+)450 / (-)450 mm		
连接器 Connector	MC4 兼容型 MC4 compatible		
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		
最大系统电压 Max. System Voltage	1000V (DC IEC)		
最大串联保险丝电流 Series Fuse Rating (A)	20A		

*电性能参数基于标准测试条件：太阳辐照量 1000W/m²，电池温度 25°C，AM1.5
 STC: Solar Irradiance 1000W/m², Solar cell temperature 25°C, AM 1.5

【组件结构图 Diagram】



GH-HJT-R-240



GH-HJT-R-320

【实物图 Photos】



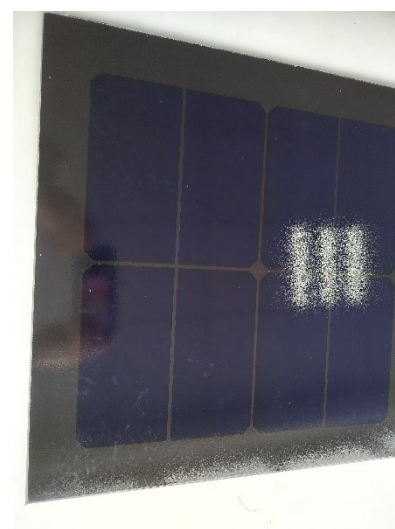
常规黑色异质结

Normal Black Flexible HJT



全黑柔性异质结

All Black Flexible HJT



全黑异质结（玻璃）

All Black HJT (Glass)