

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-Flex-SHJ-XXX

◇ 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 24.1% 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。

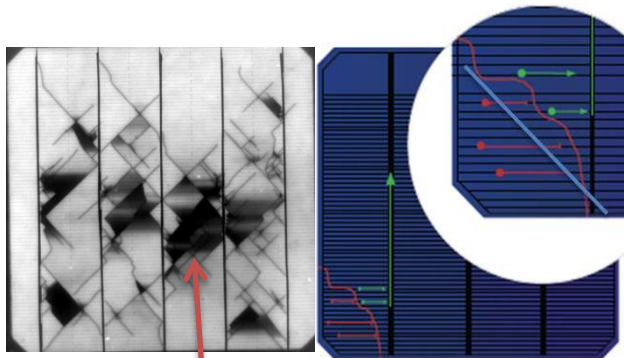
High-efficiency Hetero-junction Solar Cells (efficiency $\geq 24.1\%$) are laminated inside with excellent weak-light performance and superior Power Temperature Co-efficient, which enable the flexible HJT solar panel to achieve 5-10% more power.

- 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 Flexible Connection Technology ensures an excellent ability to resist solar cell crack and impact force. Even under extreme conditions, HJT solar 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

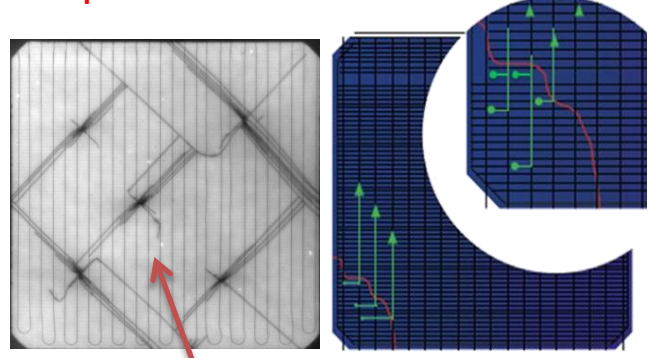


(黑色为失效区域，无法发电)

(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)

- 采用双面含氟复合材料封装，透光率 $\geq 90\%$ ，抗紫外老化；无玻璃、无边框、超薄、轻量化；厚度 1.5-2.7mm，单位面积重量 1.5-3.1KG/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 FFC/PET/FFC thin film (Transparency $\geq 90\%$) with excellent abilities to resist UV, low and high temperature, heat, humidity and salt spray. No Glass, no frame, ultra-thin and light-weight. Its thickness is 1.5-2.7mm. Panel's weight is 1.5-3.1 kilogram per m^2 , which is only 20-30% of conventional glass modules. We offer various designs of shape and dimensions as per customers' requirements.

- 内置三路旁路二极管，降低阴影遮挡影响，提高发电效率。

3 by-pass diodes are inside to protect the whole panel, and to reduce power loss due to shadows.

- 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.

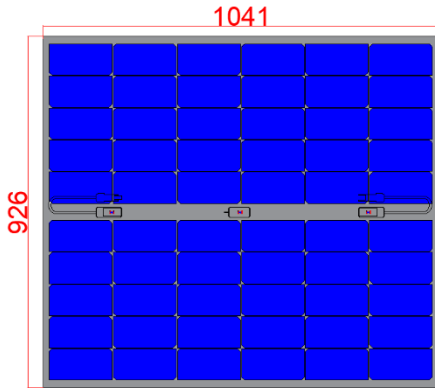
【典型规格 Typical Specifications】

组件规格 Model No.	GH-Flex-SHJ-170 (18V) GH-Flex-SHJ-170 (36V)		GH-Flex-SHJ-204	GH-Flex-SHJ-306	GH-Flex-SHJ-340
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, $\pm 5\%$)	170		204	306	340
*峰值功率电压 Vmp (V)	18.25	36.51	21.9	32.90	36.51
*峰值功率电流 Imp (A)	9.31	4.66	9.31	9.31	9.32
*开路电压 Voc (V)	22.22	44.45	26.67	40.00	44.45
*短路电流 Isc (A)	9.84	4.92	9.84	9.84	9.84
组件尺寸 Panel Dimension	1041*926*2.7mm	1041*906*2.7mm	1095*1041*2.7mm	1585*1041*2.7mm	1758*1041*2.7mm
组件重量 Panel Weight	3.2Kg	3.1KG	3.7Kg	5.4Kg	6.3KG
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，Photovoltaic cable 4.0mm ²				
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	600V (DC IEC)				

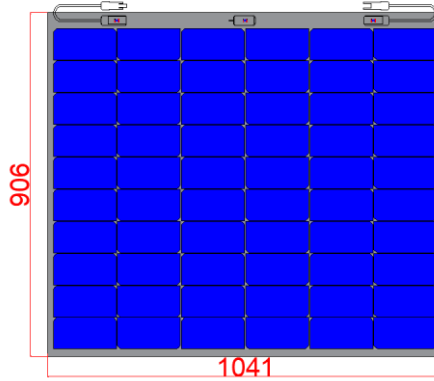
*电性能参数基于标准测试条件：太阳辐照量 1000W/m²，电池温度 25°C，AM1.5
 STC: Solar Irradiance 1000W/m², Solar cell temperature 25°C, AM 1.5

其他规格（功率、电压、尺寸）均可定制；
 Flexible HJT Solar Panels with various powers/voltages/dimensions can be customized.

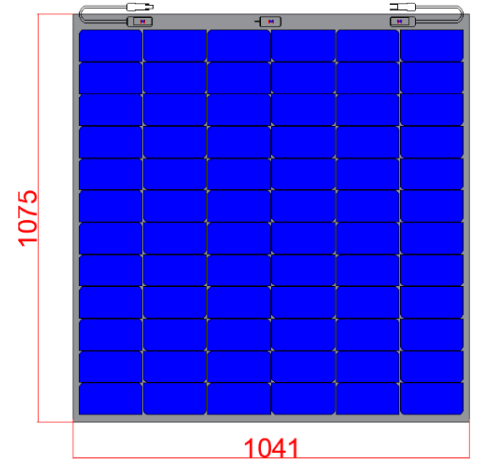
【示意图 Diagram】



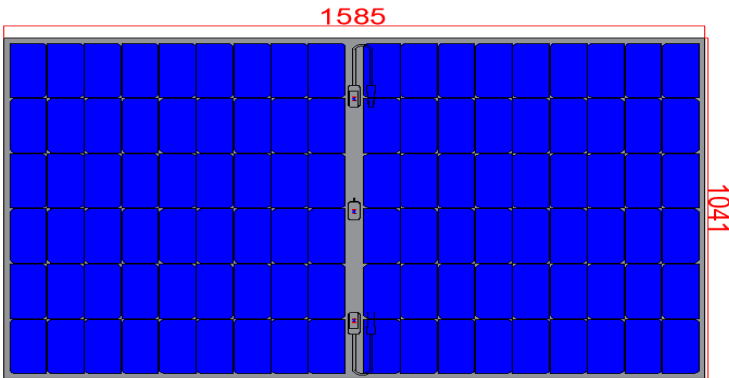
GH-Flex-SHJ-170 (18V)



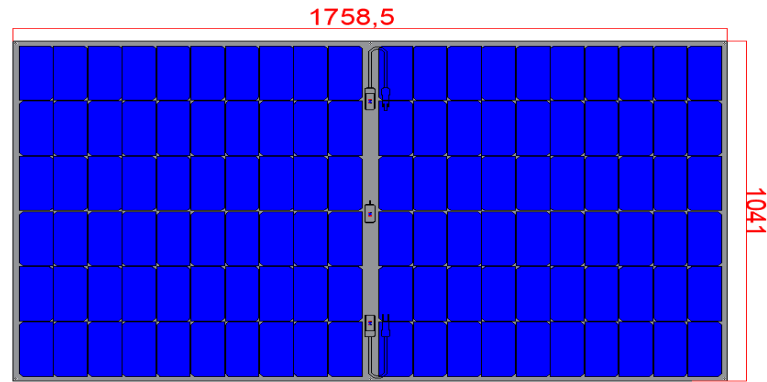
GH-Flex-SHJ-170 (36V)



GH-Flex-SHJ-204

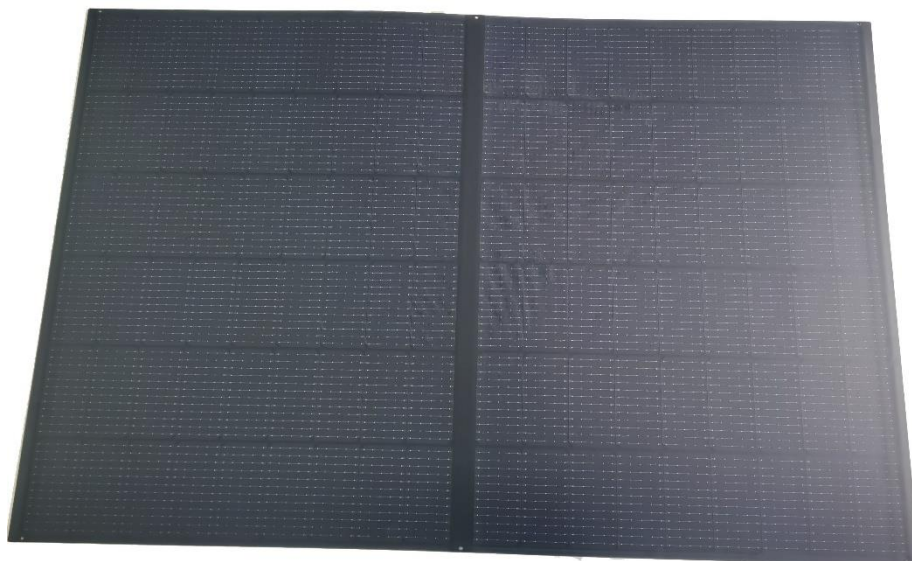


GH-Flex-SHJ-306



GH-Flex-SHJ-340

【实物图 Photos】



GH-Flex-SHJ-306 with rear junction box (306W 接线盒在背面)

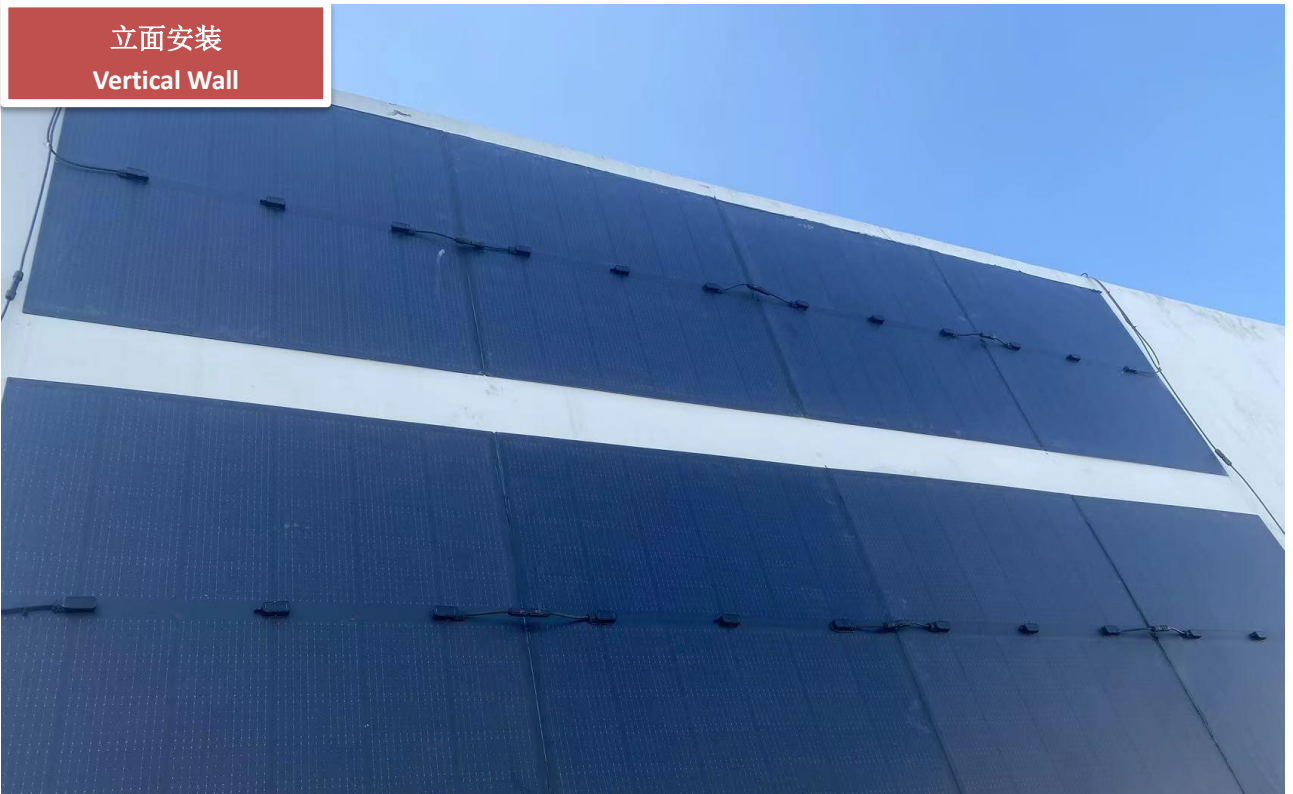
【Typical Projects 典型案例】



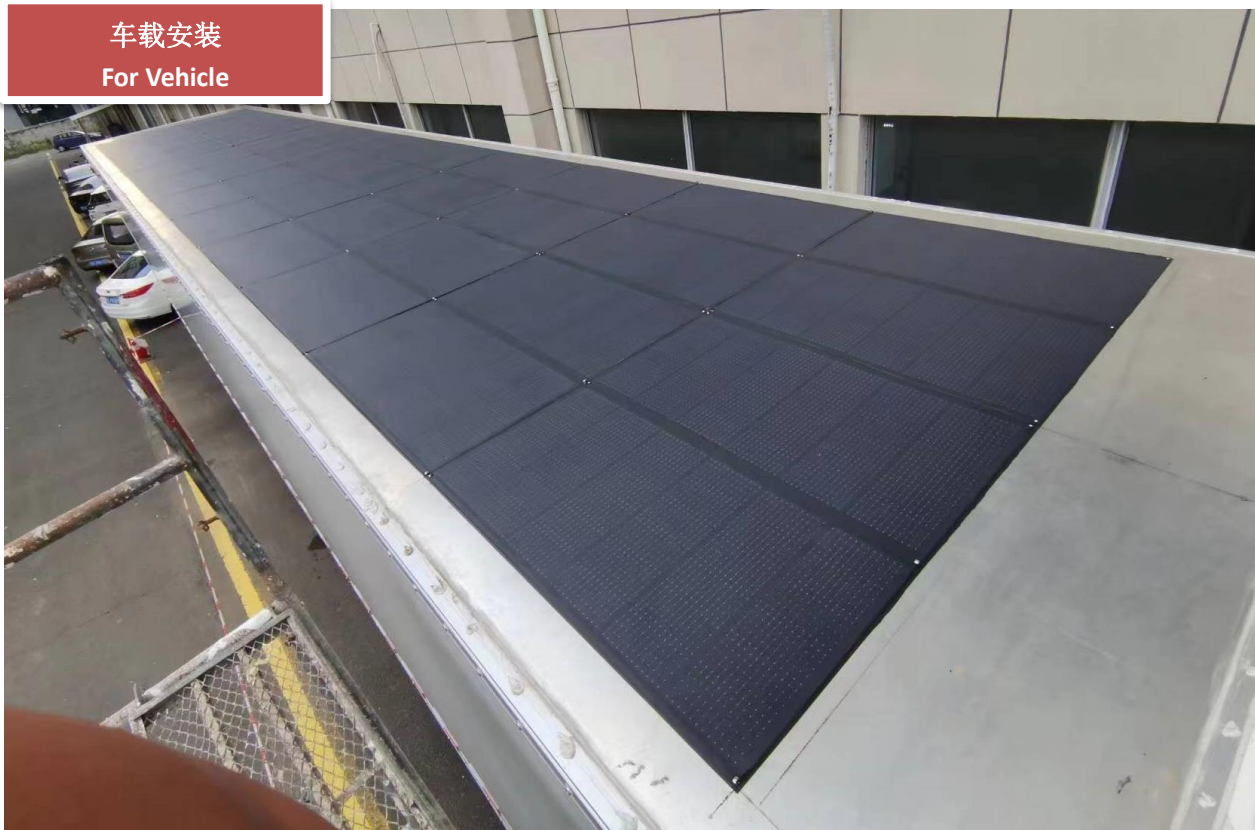
立面安装
Vertical Installation



立面安装
Vertical Wall



车载安装
For Vehicle



车载安装
For Vehicle

