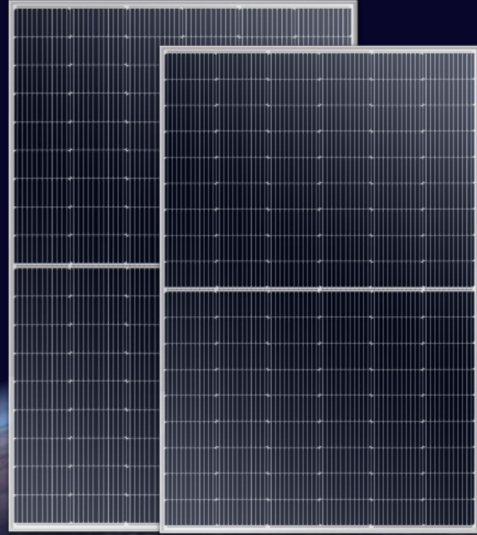


# 650-670 Watt

210mm 132 Cells PV Module



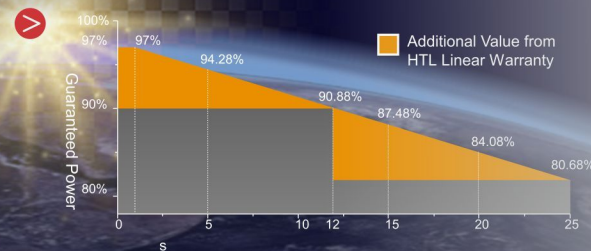
**BLACK** \*BLACK FRAME/BLACK BACK-SHEET PRODUCTS ARE AVAILABLE UPON REQUEST

**12** Years Material & Craft Quality assurance

**12** Years 90% Output Power guarantee

**25** Years 80% Output Power guarantee

CPIC



## 产品特性

### PRODUCT FEATURE

- High transmissivity, low-iron tempered glass.
- Using high efficiency mono solar cells
- Excellent performance in low-light environments
- High quality junction box and connector systems
- 100% inspection, to guarantee the reliability of solar systems
- Anti LID
- Anti PID
- Lower temperature coefficient

## 管理系统

### MANAGEMENT SYSTEM

- ISO 9001**: Quality management system
- ISO 14001**: Standard for environmental management system
- OHSAS 18001**: International standard for occupational health and safety assessment system

## 产品证书

### PRODUCT CERTIFICATES



## 电性能参数 Electrical performance parameters (STC)

组件型号	Module Type	HTL-650M12		HTL-655M12		HTL-660M12		HTL-665M12		HTL-670M12	
		STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
最大功率	Maximum Power- Pmax(W)	650	492.4	655	496.2	660	500.0	665	503.8	670	507.6
开路电压	Open Circuit Voltage - Voc(V)	45.35	42.18	45.55	42.36	45.75	42.55	45.95	42.73	46.15	42.92
短路电流	Short- Circuit Current - Isc(A)	18.23	14.95	18.28	14.99	18.33	15.03	18.38	15.07	18.43	15.11
峰值功率电压	Voltage at Pmax -Vmp(V)	37.76	35.04	37.94	35.21	38.12	35.38	38.30	35.54	38.48	35.71
峰值功率电流	Current at Pmax - Imp(A)	17.22	14.05	17.27	14.09	17.32	14.13	17.37	14.17	17.42	14.21
组件效率	Module Efficiency - $\eta$ (%)	20.9	/	21.1	/	21.2	/	21.4	/	21.6	/
功率差	Power Tolerance(W)	(0/+4.99W)									
最大系统电压	Maximum System Voltage(V)	1500Vdc (IEC)									
最高系列保险丝额定值	Maximum Series Fuse Rating (A)	35A									

STC : Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass 1.5

NOCT : Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20°C, Air Mass 1.5, Wind Speed 1m/s

## 机械参数 Mechanical Specifications

外形尺寸	External Dimensions	2384 x 1303 x 35mm
重量	Weight	33kg
太阳能电池	Solar Cells	Mono crystalline 210*105mm (2*66pcs)
玻璃	Front Glass	AR Coated 3.2 mm tempered glass
边框	Frame	Anodized aluminum alloy
接线盒	Junction Box	IP68
输出电缆	Output Cables	4.0mm <sup>2</sup> , 30cm (+), 30cm (-), length can be customized
连接器	Connector	MC4 Compatible
机械负荷	Mechanical Load	Front Side Max. 5400Pa, Rear Side Max. 2400Pa

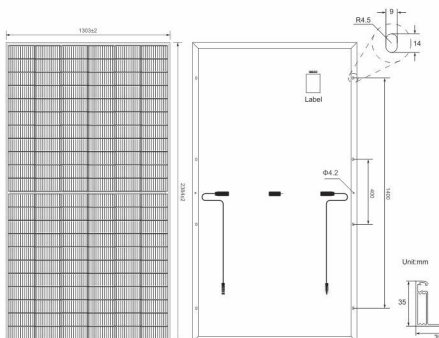
## 包装方式 Packing Configuration

	2384 x 1303 x 35mm	
集装箱	Container	20'GP 40'HQ
每托数量	Pieces per Pallet	31 31
每集装箱托盘	Pallets per Container	/ 18
每集装箱数量	Pieces per Container	/ 558

## 温度系数 Temperature Characteristics

峰值功率	Pmax Temperature Coefficient	-0.350%/°C
开路电压	Voc Temperature Coefficient	-0.275%/°C
短路电流	Isc Temperature Coefficient	+0.045%/°C
标准工作温度范围	Operating Temperature	-40 ~ +85°C
标准工作温度	Nominal Operating Cell Temperature(NOCT)	45 ± 2°C

## 尺寸图 Dimension Drawing



## I-V 图表 I-V Graph

### Current-Voltage & Power-Voltage Curves

