

# M10多主栅单晶120片高效半片组件

M10 MBB Monocrystalline Half-cell Module (120 Half Cells)

440-460W

输出功率 / Output power

21.3%

最高效率 / Maximum efficiency

0~+5W

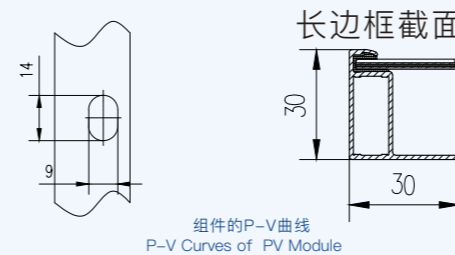
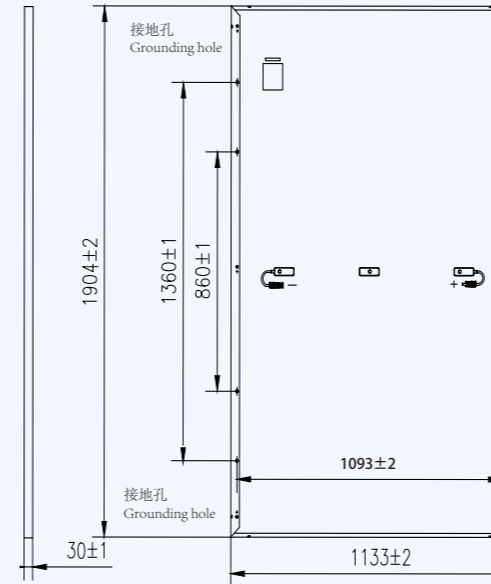
功率公差 / Power tolerance



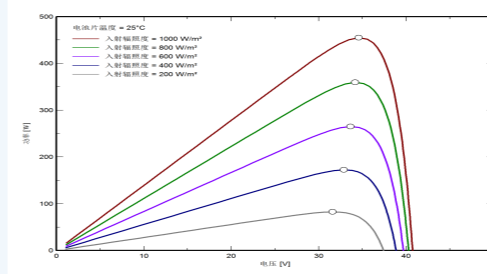
组件型号  
Model of PV Module  
CETC-xxxM(H)/120

功率范围  
Power Range  
440-460W

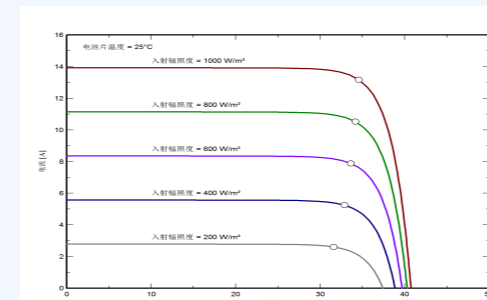
组件尺寸 (mm)  
PV Module Dimension



组件的P-V曲线  
P-V Curves of PV Module

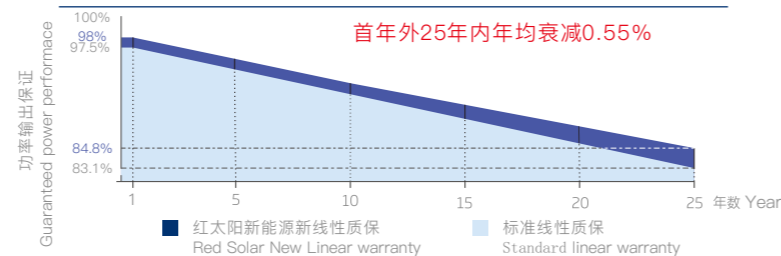


组件的I-V曲线  
I-V Curves of PV Module



- 高收益 / High Returns**  
背面提供额外发电, 提升投资收益。  
Provide additional power generation on the rear to increase return on investment
- 高寿命 / Long Life**  
25年线性质保, 更低的年度衰减率, 提升投资收益。  
25-year linear warranty, lower power attenuation rate, increased return on investment
- 自清洁 / Self Cleaning**  
优异、可靠的玻璃镀膜技术, 保证恶劣环境下稳定的功率输出。  
Excellent and reliable glass coating technology to ensure stable power output in severe environment.

## 12年产品质保·25年线性功率保证 12 Year Product Warranty · 25 Year Linear Power Warranty



### 全面的产品和体系证书

Comprehensive product certification and system certification

IEC 61215 IEC 61730  
IEC TS 62941(光伏质量体系/  
PV quality Management System)

ISO9001:2015(质量管理体系/  
Quality Management System)

ISO14001(环境管理体系/  
Environmental Management System)

OHSAS18001(职业健康安全管理体系/  
Occupational Health and Safety Management System)



电气参数 (STC) / Electrical Parameter(STC)					
型号/Model	440M	445M	450M	455M	460M
最大功率/Maximum power	440	445	450	455	460
工作点电压/Working point voltage	33.8	34.1	34.3	34.5	34.7
工作点电流/Working point current	12.99	13.05	13.12	13.19	13.25
开路电压/Open circuit voltage	39.97	40.3	40.5	40.7	41.0
短路电流/Short circuit current	13.72	13.78	13.85	13.92	13.98
组件效率/PV module efficiency	20.3%	20.6%	20.8%	21.0%	21.3%
标准测试条件/Standard test conditions	大气质量AM1.5, 辐照度1000W/m², 电池温度25°C Atmospheric quality Am1.5, Irradiance 1000W/m², Cell Temperature 25°C				

电气参数 (NMOT) / Electrical Parameters (NMOT)					
型号/Model	440M	445M	450M	455M	460M
最大功率/Maximum power	321	325	329	332	336
工作点电压/Working point voltage	30.6	30.7	30.9	31.1	31.3
工作点电流/Working point current	10.51	10.57	10.63	10.68	10.73
开路电压/Open circuit voltage	36.3	36.5	36.7	36.9	37.1
短路电流/Short circuit current	11.07	11.13	11.19	11.24	11.29
NMOT	辐照度800W/m², 环境温度20°C, 风速1m/s The irradiance is 800W/m², the ambient temperature is 20 degrees, and the wind speed is 1m/s				
在该产品目录中的电性能参数并不指一块组件, 也不是合同中承诺的内容, 只做不同类型组件间比较用。 The Electrical performance parameters are neither just referred to one PV panel, nor are a part of the contract; They are only used as reference.					

机械参数 / Mechanical Parameters	
组件尺寸 / Module size	1904*1133*30mm
电池片数量 / Number of solar cells	120片 (2*6*10)
重量 / Weight	19Kg ±5%
接线盒 / Junction Box	PV-ZPB040 (connector: PV-ZPJ030A) The 40th Institute of China Electronic Technology Group Corporation Z8-abcd (connectors: Z4S-abcd) Zerun Co.,Ltd PV-XT1609Nxyz (connectors: PV-XT101.1) Suzhou Xtong Photovoltaic Technologies Co., Ltd.
线缆 / Cables	4mm², +300mm~-200mm (含接头, 可定制 / Customizable)
前板玻璃 / Front plate glass	超白, 减反射膜钢化玻璃/Ultra white&minus reflection film toughened glass
正面静态载荷 / Static load on the front	5400Pa
背面静态载荷 / Static load on the back	2400Pa

包装&运输 (Packaging&Transport)	
40尺集装箱运输 / 40'HQ container transport	36 Pcs/box × 22 box = 792 Pcs

温度参数 / Temperature Parameter		极限参数 / Maximum Ratings	
NMOT	45±2°C	工作温度 Working temperature	-40~+85°C
最大功率(Pmax)温度系数 Temperature coefficient of maximum power(Pmax)	-0.35%/°C	最大系统电压 Maximum system voltage	1500VDC
开路电压(Voc)温度系数 Temperature coefficient of open circuit voltage(Voc)	-0.28%/°C	最大保险丝额定电流 Maximum fuse rated current	25A
短路电流(Isc)温度系数 Temperature coefficient of short circuit current(Isc)	+0.05%/°C	防火等级 Fire safety class	C