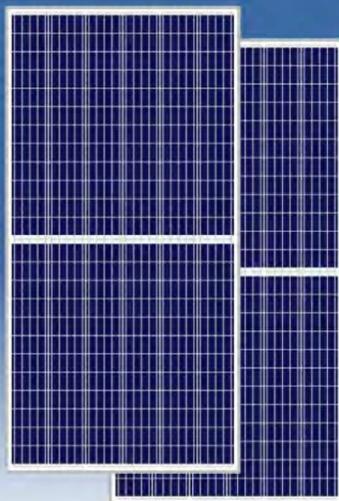


单晶系列 ZD MONO SERIES

ZD-50HP 490W-510W

- ZD-50HP-490P • ZD-50HP-495P
- ZD-50HP-500P • ZD-50HP-505P
- ZD-50HP-510P

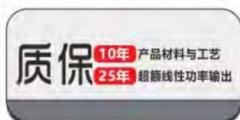
- 九栅线、十栅线组件都可提供
- 9BB、10BB solar panels All provide



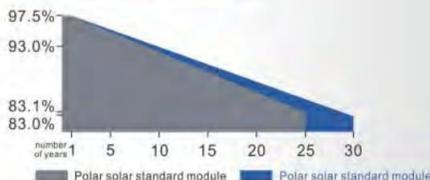
Product Characteristics

- 1 优质的封装材料和严格的工艺方案，保证组件抗PID能力**
High-quality encapsulating materials and strict process program to ensure the anti-PID ability of solar modules.
- 2 高效率-低衰减，结合硅片与电池端先进技术，获得首年衰减3-4%以内的高效率单晶组件**
High efficiency-low attenuation, combined with the silicon wafers and cells advanced technology, to get the mono solar modules with the first year attenuation of less than 3%.
- 3 阴影条件下发电性能好，特殊的电池与组件设计显著降低阴影遮挡造成的功率损失**
Good power generation performance under the shadow conditions, special solar cells and modules design reduces power loss caused by the shadow occlusion significantly.
- 4 抗热斑能力强，较低内部电流使得热斑造成的局部升温显著降低**
Strong resistance to the hot spots, lower internal current significantly reduces to rise the local temperature caused by the hot spots.
- 5 适应高温高辐照环境，在高辐照与高温地区相对整片组件的发电增益最明显**
Adapt to high temperature and high radiation environment, the whole module makes power is the most obvious in high radiation and high temperature areas.

长达25年的稳定品质
25 YEARS OF STABLE QUALITY



线性功率保证 LINEAR POWER GUARANTEE



以质量为生命，以信誉为基础，以效率求生存

Take The Quality As The Life, Take The Reputation As The Foundation, Take The Efficiency For Survival.

常规高效和半片高效组件 | ZD-50HP 490W-510W

Conventional and semi-cells high efficiency modules

电性能参数 Electrical performance parameters (STC)

组件型号	Solar panels model	ZD-50HP-490M	ZD-50HP-495M	ZD-50HP-500M	ZD-50HP-505M	ZD-50HP-510M
最大功率	Power Max (Pmax/W)	490	495	500	505	510
开路电压	Open circuit voltage (Voc/V)	42.40	42.60	42.80	43.00	43.20
短路电流	Short circuit current (Isc/A)	11.56	11.63	11.69	11.75	11.81
峰值功率电压	Power max voltage (Vmp/V)	51.30	51.50	51.70	51.90	52.10
峰值功率电流	Power max current (Imp/A)	12.14	12.21	12.28	12.35	12.42
组件效率	Solar panels efficiency(%)	20.30	20.50	20.70	21.00	21.20

STC:1000W/m2 irradiance, 25°C cell temperature, AM1.5gspectrum according to EN60904-3. Average relative efficiency reduction of 3.3% at 200W/m2 according to EN60904-1.

电性能参数 Electrical performance parameters (NOCT)

组件型号	Solar panels model	ZD-50HP-490M	ZD-50HP-495M	ZD-50HP-500M	ZD-50HP-505M	ZD-50HP-510M
最大功率	Power Max (Pmax/W)	369	373	377	381	385
开路电压	Open circuit voltage (Voc/V)	40.0	40.2	40.4	40.6	40.8
短路电流	Short circuit current (Isc/A)	9.22	9.28	9.33	9.38	9.50
峰值功率电压	Power max voltage (Vmp/V)	48.2	48.4	48.6	48.8	49.0
峰值功率电流	Power max current (Imp/A)	9.78	9.84	9.90	9.95	9.99

NOCT: open-circuit module operation temperature at 800W/m2 irradiance, 20°C ambient temperature, 1m/s wind speed.

机械参数 Mechanical Parameters

电池排列 Cells Array	150 (5 x30)	150 (6 x30)
接线盒 Junction Box	IP67, 接线盒, 分体式接线盒 (三个二极管)	IP67, Junction box, Split junction box (3 diodes)
输出线 Output wire	4mm2, 300mm线长, 导线长度可定制	4mm2, 300mm length wire, wire length can be customized
玻璃 Glass	单玻, 3.2mm镀膜钢化玻璃	One glass, 3.2mm coated tempered glass
边框 Aluminum Frame	阳极氧化铝合金边框	Anodized aluminum alloy frame
组件重量 Solar panels Weight	26.5kg	26.5kg
组件尺寸 Solar panels Size	2187x1102x35mm	2187x1102x35mm
包装信息 Packaging information	155块/20尺平柜 31块/托 620块/40尺高柜	155pcs/20GP container 31pcs/pallet, 620pcs/40HC container
	682块/13.5米平板 868块/17.5米平板	682pcs/ 13.5m flat trucks 868pcs/ 17.5m flat trucks

温度系数(STC测试) Temperature coefficient (STC TEST)

开路电压	Open circuit voltage (Voc/V)	-0.057%/°C
短路电流	Short-circuit current (Isc/A)	-0.286%/°C
峰值功率	Power max(Pmax)	-0.370%/°C

工作参数 Working parameters

工作温度	Working temperature	-40°C ~85°C
功率公差	Power tolerance	0— +5W
开路电压和短路电流公差	Open circuit voltage and short circuit	±3%
最大系统电压	Maximum system voltage	DC1500V (IEC)
最大保险丝额定电流	Maximum Fuse Rated current	25A
标准工作温度	Standard operating temperature	45±2°C
安全保护等级	Security protection level	Class II

负载能力 Loading capacity

正面静态载荷 (如雪、风)	Frontal static load (e.g. snow, wind)	5200Pa
背面静态载荷 (如风)	Back static load (e.g. wind)	2200Pa
通过冰雹测试	Passing the hail test	直径25mm, 冲击速度22m/s Diameter25mm, Impact velocity22m/s