

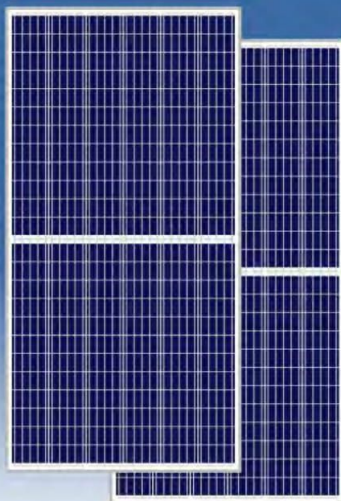
单晶系列 ZD MONO SERIES

ZD-72HP 390W-415W

- ZD-72HP-390P • ZD-72HP-395P
- ZD-72HP-400P • ZD-72HP-405P
- ZD-72HP-410P • ZD-72HP-415P

五栅线组件可提供

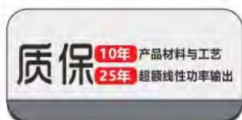
- 5BB、9BB solar panels All provide



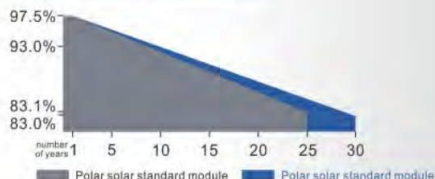
Product Characteristics

- 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温升显著降低**
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-72HP | 390W-415W

Conventional and semi-cells high efficiency modules

电性能参数 Electrical performance parameters (STC)

组件型号	Solar panels model	ZD-72HP-390M	ZD-72HP-395M	ZD-72HP-400M	ZD-72HP-405M	ZD-72HP-410M	ZD-72HP-415M
最大功率	Power Max (Pmax/W)	390	395	400	405	410	415
开路电压	Open circuit voltage (Voc/V)	49.3	49.5	49.7	49.9	50.1	50.1
短路电流	Short circuit current (Isc/A)	9.99	10.15	10.30	10.45	10.59	10.59
峰值功率电压	Power max voltage (Vmp/V)	40.9	41.1	41.2	41.3	41.4	41.4
峰值功率电流	Power max current (Imp/A)	9.54	9.62	9.71	9.81	9.91	9.91
组件效率	Solar panels efficiency(%)	21.7	21.9	22.2	22.4	22.7	22.7

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-72HP-390M	ZD-72HP-395M	ZD-72HP-400M	ZD-72HP-405M	ZD-72HP-410M	ZD-72HP-415M
最大功率	Power Max (Pmax/W)	288.4	299.6	314.4	327.8	345.9	359.1
开路电压	Open circuit voltage (Voc/V)	46.2	46.5	46.8	47.1	47.5	47.7
短路电流	Short circuit current (Isc/A)	8.11	8.55	9.01	9.42	9.66	9.72
峰值功率电压	Power max voltage (Vmp/V)	37.4	37.5	37.6	37.7	38.1	39.8
峰值功率电流	Power max current (Imp/A)	7.71	8.01	8.37	8.65	8.92	9.15

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	144 (6x12)	144 (6x12)
接线盒 Junction Box	IP67, 接线盒, 常规接线盒	IP67, Split junction box
输出线 Output wire	4mm ² , 100mm线长, 导线长度可定制	4mm ² , 100mm 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	22kg	22kg
组件尺寸 Solar panels Size	2024x1002x35mm	2024x1002x35mm
包装信息 Packaging information	30块/托	30pcs/pallet

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	20A
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