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**Solar Panel Guide
Specification Data Sheet**

**Znshine PV-tech Co., Ltd.
ZXM6-TD60-285-320
ZXM6-TD60-290**

Also available on the web at
EnergyPal.com/znshine-pv-tech-co-ltd-solar-panels/zxm6-td60-290



ZNSHINESOLAR

ZXM6 | D60 Cells

12-busbar double-glass mono module 285-320 Watt



Features:

Good Low-light performance

Excellent performance under low-light environments.

High efficiency

Dense busbars shorten the current conduction distances between bars and lower serial resistance; increases 7-8W power output.

Minimize Crack Effect

Collected more current, almost no power generation efficiency loss by internal cells cracked.

Improve reliability

Improve product reliability; minimize the probability of pressure and battery fragmentation caused by thermal stress.

Longer lifetime

Minimize the heat resistance due to internal cracks, bringing longer life span and less attenuation.



High Efficiency

High module efficiency up to 19.46%



Linear Warranty

30-year-linear warranty on outputs



Good weather resistance, Better anti-EL ability

Good weather resistance, Better anti-EL ability



Higher capacity in all life cycle, Lower power attenuation, Longer lifespan, less maintenance costs

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Lower carbon emissions, more environmental-friendly way of recycling

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System Certification

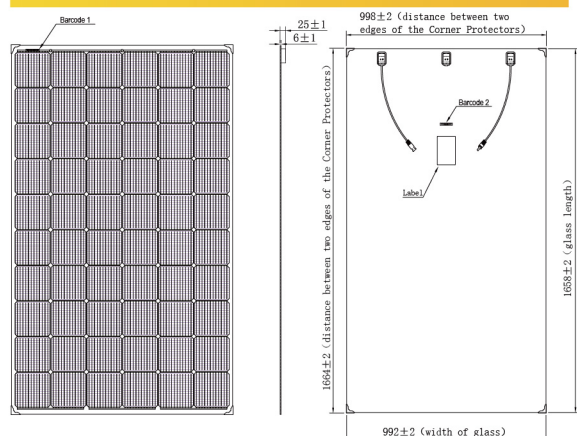
ISO 9001
ISO 14001
OHSAS 18001



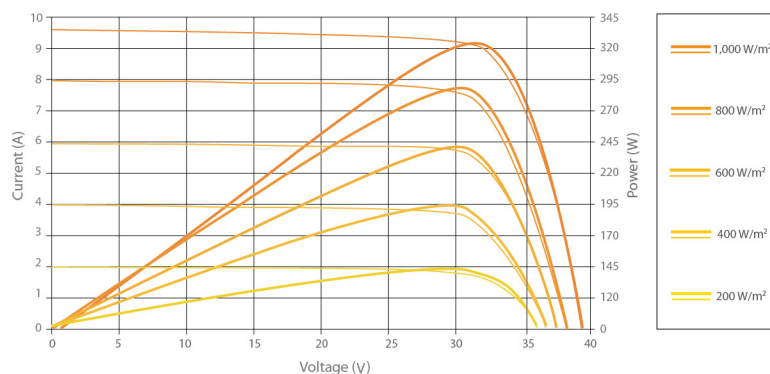
ZXM6 TD60/285-320



Dimension of the PV module



I-V Curves of the PV module



Electrical data

Model	ZXM6-TD60-285	ZXM6-TD60-290	ZXM6-TD60-295	ZXM6-TD60-300	ZXM6-TD60-305	ZXM6-TD60-310	ZXM6-TD60-315	ZXM6-TD60-320
Nominal Power Watt $P_{max}(W_p)$	285	290	295	300	305	310	315	320
Power Output Tolerance $P_{max}(\%)$	0~+3	0~+3	0~+3	0~+3	0~+3	0~+3	0~+3	0~+3
Maximum Power Voltage $V_{mp}(V)$	31.88	32.05	32.21	32.37	32.52	32.70	32.88	33.06
Maximum Power Current $I_{mp}(A)$	8.94	9.05	9.16	9.27	9.38	9.48	9.58	9.68
Open Circuit Voltage $V_{oc}(V)$	38.85	38.99	39.15	39.31	39.46	39.61	39.78	39.94
Short Circuit Current $I_{sc}(A)$	9.43	9.54	9.64	9.74	9.83	9.93	10.03	10.13
Module Efficiency $\eta_m(\%)$	17.33	17.63	17.94	18.24	18.54	18.85	19.15	19.46

Mechanical data

Solar cells	Mono 156×156 / 156.75×156.75 mm
Cells orientation	60 (6×10)
Module dimension	1658×992×25 mm(Frameless,JB Included)
Weight	22 kg
Glass	2.0mm/2.5mm heat strengthened glass
Junction box	IP 68, 3 diodes
Cables	4 mm ² ,350 mm
Connectors	MC4-compatible

Temperature ratings

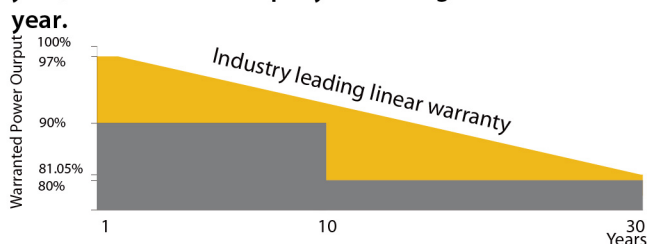
Nominal Operating Cell Temperature	45°C ±2°C
Temperature coefficient of P_{max}	-0.41%/K
Temperature coefficient of V_{oc}	-0.29%/K
Temperature coefficient of I_{sc}	0.04%/K

Working conditions

Maximum system voltage	1000 / 1500 V DC
Operating temperature	-40°C~+85°C
Maximum series fuse	15 A
Maximum load (snow/wind)	5400 Pa / 2400 Pa

Warranty information

30 years output warranty(monocrystalline): 3.0% in the 1st year, thereafter 0.55% per year ending with 81.05% in the 30th year.



Packaging information

Modules per box	31 pcs.
Modules per 40' HQ container	806 pcs.

Measurement Tolerance STC: ±3% (P_{max}), ±10% (V_{oc} , I_{mp} , V_{mp} , I_{sc}). Values at Standard Test Conditions STC(Air Mass AM1.5, Irradiance 1000W/m², Cell Temperature 25°C) | Remark: please read safety and installation instructions before using the product | Subject to change without prior notice © ZNSHINE SOLAR 2017 | Version: ZXM6-TD60-1805.E