

## 270 - 305 Watt

### Monocrystalline photovoltaic module (alu and black)

ZXM6-72 is one of ZNSHINE SOLAR's largest monocrystalline panels. Versatile and adaptable, with a power output ranging from 270 Wp up to 305 Wp (black modules up to 295 W), it is perfect for residential rooftop systems as well as for ground-mounted installations.



High module conversion efficiency up to 15,71 %



Insured output warranty of 25 years



Green Certifications: PV-Cycle, carbon footprint and RoHS



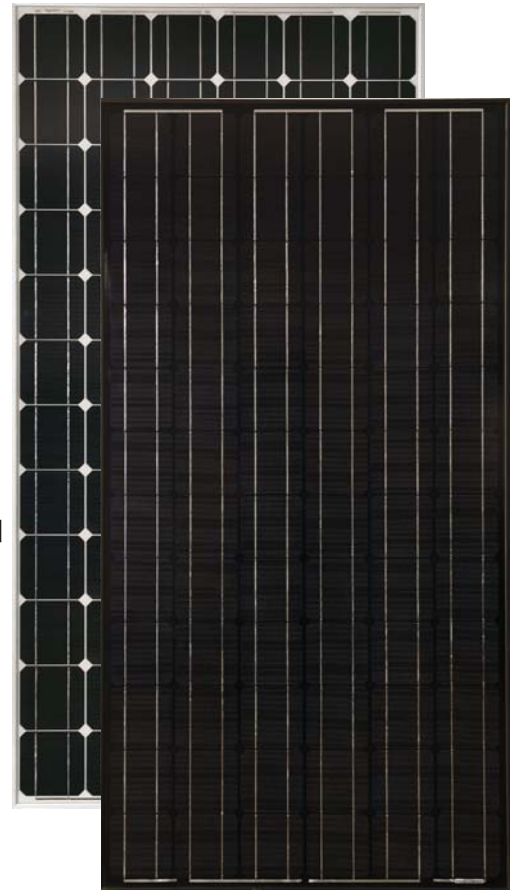
Free from Potential-induced Degradation (PID-free)



Resistant against ammonia and salt mist



Certified to withstand extreme snowloads of 5.400 Pascal



This module is made of reliable and carefully selected components. With a 25-year output warranty and a 10-year workmanship warranty, ZXM6-72 meets rigorous quality controls and international standard such as ISO 9001, ISO 14001 and OHSAS 18001. The panel is tested by widely acknowledged certifying institutions such as TÜV Süd. The recycling of this module at the product's end of life follows the prescriptions of PV-CYCLE Association certification.

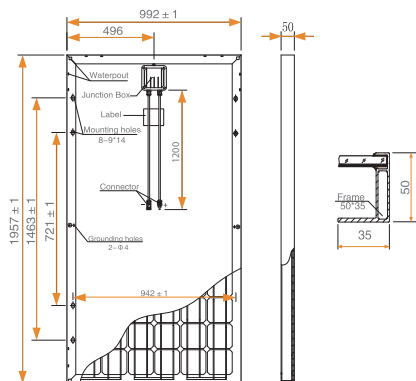


### 25 years power output guarantee insured by PowerGuard

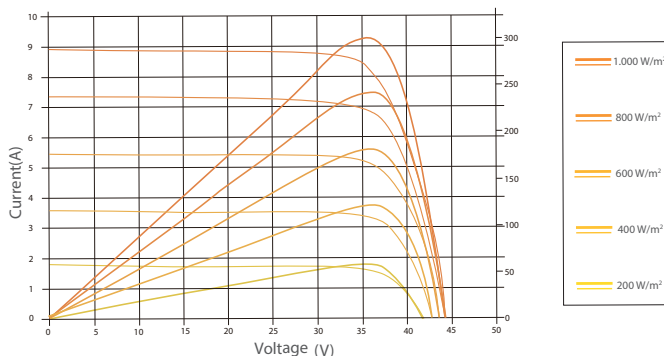
ZNSHINE SOLAR is one of the first manufacturers whose modules participate in the PowerGuard insurance programme, guaranteeing an output of 90% for 10 years and of 80% for 25 years even in the unlikely case of manufacturer's insolvency.



## Dimensions of the PV module



## I-V Curves of the PV module



## Electrical Data

	ZXM6-96-270/M	ZXM6-96-275/M	ZXM6-96-280/M	ZXM6-96-285/M	ZXM6-96-290/M	ZXM6-96-295/M	ZXM6-96-300/M	ZXM6-96-305/M
Nominal Power Watt $P_{max}$ ( $W_p$ )	270	275	280	285	290	295	300	305
Power Output Tolerance $P_{max}$ (%)	0 ~ +3	0 ~ +3	0 ~ +3	0 ~ +3	0 ~ +3	0 ~ +3	0 ~ +3	0 ~ +3
Maximum Power Voltage $V_{max}$ (V)	36.00	36.20	36.50	36.60	36.80	37.00	37.20	37.50
Maximum Power Current $I_{Mpp}$ (A)	7.50	7.60	7.67	7.78	7.88	7.97	8.06	8.13
Open Circuit Voltage $V_{oc}$ (V)	44.39	44.64	45.01	45.38	45.77	46.00	46.19	46.26
Short Circuit Current $I_{sc}$ (A)	8.33	8.44	8.52	8.56	8.59	8.62	8.66	8.73
Module Efficiency $\eta_m$ (%)	13.91	14.17	14.42	14.68	14.94	15.20	15.45	15.71
Cell Efficiency $\eta_c$ (%)	16.01	16.34	16.68	17.01	17.34	17.68	18.01	18.35

## Mechanical Data

Solar Cells	Mono 156 × 156 mm
Cells Orientation	72 (6 × 12)
Module Dimensions	1957 × 992 × 50 mm
Weight	22.5 kg
Glass	High transparency, low Iron, AR-coating, tempered glass 3.2 mm
Frame	Anodized Aluminium alloy. Frame and backside in black or alu
Junction Box	IP 65
Cables/Connector	4 mm <sup>2</sup> , 1200 mm, MC4-compatible
Number of Diodes	6

## Temperature Ratings

Nominal Operating Cell Temperature	45 °C (±2 °C)
Temperature Coefficient of $P_{MPP}$	-0.42 %/K
Temperature Coefficient of $V_{oc}$	-0.29 %/K
Temperature Coefficient of $I_{sc}$	0.04 %/K

## Working Conditions

Maximum System Voltage	1000 V DC (TÜV)
Operating Temperature	from -40 to +85 °C
Maximum Series Fuse	15 A
Maximum Load (Snow/Wind)	5400 Pa / 2400 Pa
Ammonia-/Salt Mist Resistance	IEC 62716, 61701 ✓

## Warranty Information

10 years workmanship warranty  
 10 years warranty at 90% power output  
 + further 15 years warranty at 80% power output

## Packaging Information

Module pro Palette	23 pcs (50 mm)
Module pro 40'-Container	506 pcs. (50 mm)

<sup>1</sup> Measurement Tolerance STC: ± 3% ( $P_{max}$ ), ± 10% ( $V_{max}$ ,  $I_{MPP}$ ,  $V_{oc}$ ,  $I_{sc}$ ). Values at Standard Test Conditions STC (Air Mass AM 1.5, Irradiance 1000 W/m<sup>2</sup>, Cell Temperature 25 °C)  
 Remark: Please read safety and installation instructions before using the product | Subject to change without prior notice © ZNSHINE SOLAR 2013 | Versionscode: ZXM6-72-1307.E

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