



It's time to save the world !

## AE PowerPlus Module

AE P6-72 Series 285W – 310W

## The main features at a glance



- ◆ High performance modules of poly-crystalline solar cells
- ◆ Connection box with 6 bypass diodes
- ◆ 3,2 mm thick safety glass of high transparence
- ◆ 12 year product warranty
- ◆ 12 years guarantee at 90% rated performance  
30 years guarantee at 80% rated performance
- ◆ Certified from: TÜV, IEC 61215, IEC 61730, CE, ISO
- ◆ 50 mm aluminum frame
- ◆ Up to + 3% positive power tolerance
- ◆ Cell efficiency up to 17.69 %

## Quality features

The solar cells are embedded in UV-resistant EVA plastic. The entire module is protected against dust and splash water (IP67). This ensures the long-term outdoor use. Each module is optically, mechanically, and electrically tested.

Through regular monitoring and measurements, we ensure that all the electrical, mechanical, and optical requirements comply with the highest quality standards.

The 50 mm thick frame of anodized aluminum ensures excellent stability even in storm and snow load zone 3.



AE Alternative Energy GmbH

Messerschmittring 54  
86343 Königsbrunn

Tel.: +49 8231 / 97 82 66 – 0  
Fax: +49 8231 / 97 82 66 – 9

E-Mail: [info@ae-solar.com](mailto:info@ae-solar.com)  
Web: [www.ae-solar.com](http://www.ae-solar.com)

# Technical Data

Electrical Data		AE 285P-72	AE 290P-72	AE 295P-72	AE 300P-72	AE 305P-72	AE 310P-72
Nominal power/Wattage	Pm (Wp)	285	290	295	300	305	310
Open circuit voltage	Voc (V)	44.28	44.64	44.95	45.36	45.72	46.10
Short-circuit current	Isc (A)	8.41	8.54	8.63	8.71	8.78	8.85
Voltage at max power	Vmp (V)	37.08	37.44	37.80	38.16	38.52	38.88
Current at max power	Imp (A)	7.68	7.75	7.81	7.86	7.92	7.97
Module efficiency	(%)	14.73	14.99	15.25	15.50	15.76	16.03
Cell efficiency	(%)	16.27	16.55	16.84	17.12	17.41	17.03

The electrical data apply to Standard Test Conditions (STC): Irradiance of 1000 W/m<sup>2</sup> with spectrum AM 1.5 and a cell temperature of 25°C.

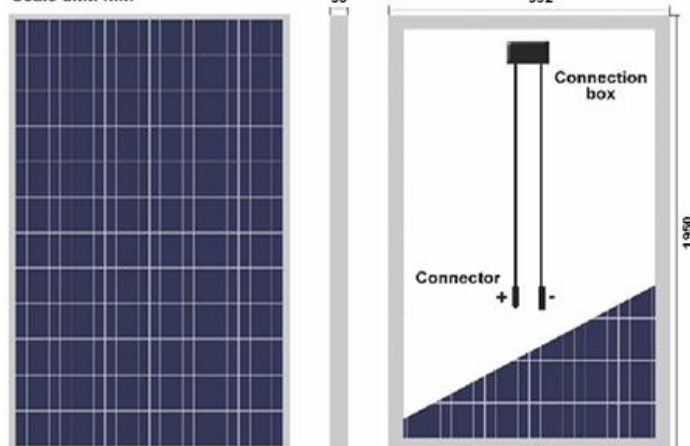


System voltage	(V)	1000
Temp. coefficient Voc	(%/°C)	-0.348
Temp. coefficient Isc	(%/°C)	+0.031
Temp. coefficient Pm	(%/°C)	-0.460
Operating temperature	(°C)	-40 to 85
NOCT	(°C)	48 +/- 2

## Technical Data

Dimensions (L x W x H, mm)	1950 x 992 x 50
Weight (kg)	23.94
Cell dimensions (mm)	156 x 156
No of cells / Assembly	72 / 6 x 12
Type of cells	Poly-crystalline
Hail resistance	Max. Ø 25 mm at 23 m/s
Wind load	2000 Pa / 204 kg/m <sup>2</sup>
Mechanical load	5000 Pa / 510 kg/m <sup>2</sup>

Scale unit: mm



## Connexion

Connection box	6 bypass diodes, IP67
Wire cross section (Ø, mm <sup>2</sup> )	4,0
Cable length (mm)	900
Connector type	MC4 / MC4 compatible

© AE Solar | 01.2013 | Errors and/or modifications excepted.

