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# **EnergyPal**

## **Solar Panel Guide Specification Data Sheet**

**AXITEC Energy GmbH & Co. KG  
AXIpremium AC-290-315M/60S  
AC-290M/60S**

Also available on the web at  
[EnergyPal.com/axitec-energy-gmbh-co-kg-solar-panels/ac-290m-60s](http://EnergyPal.com/axitec-energy-gmbh-co-kg-solar-panels/ac-290m-60s)



## 290 - 315 Wp

### AXIpremium

60 cell monocrystalline  
High performance solar module

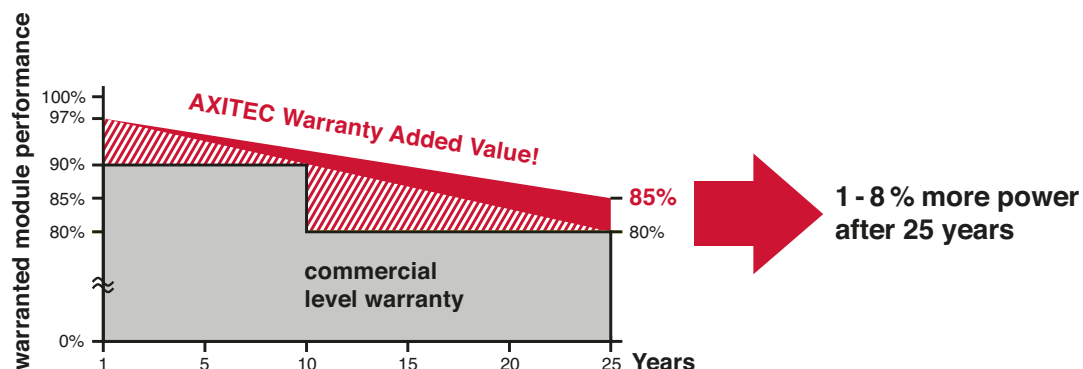
#### The advantages:

- 15** Years 15 years manufacturer's warranty
- P-Max** Highest performance due to specifically selected technologies and materials
- Wp** Guaranteed positive power tolerance from 0-5 Wp by individual measurement
- 5.400 Pa** Maximum 5400 Pa snow load
- 100%** 100% electroluminescence inspection
- Soft Grip** High stability due to AXITEC-Soft-Grip-Seam aluminium frame construction
- IP 68** High quality junction box and connector systems



#### Exclusive linear AXITEC high performance guarantee!

- 15 years manufacturer's guarantee on 90% of the nominal performance
- 25 years manufacturer's guarantee on 85% of the nominal performance



## AXIpremium 290 - 315 Wp

**Electrical data** (at standard conditions (STC) irradiance 1000 watt/m<sup>2</sup>, spectrum AM 1,5 at a cell temperature of 25°C)

Type	Nominal output P <sub>mpp</sub>	Nominal voltage U <sub>mpp</sub>	Nominal current I <sub>mpp</sub>	Short circuit current I <sub>sc</sub>	Open circuit voltage U <sub>oc</sub>	Module conversion efficiency
AC-290M/60S	290 Wp	32,01 V	9,06 A	9,54 A	39,42 V	17,72 %
AC-295M/60S	295 Wp	32,25 V	9,15 A	9,67 A	39,56 V	18,02 %
AC-300M/60S	300 Wp	32,37 V	9,27 A	9,74 A	39,72 V	18,33 %
AC-305M/60S	305 Wp	32,41 V	9,42 A	9,83 A	39,81 V	18,63 %
AC-310M/60S	310 Wp	32,51 V	9,54 A	9,94 A	39,94 V	18,94 %
AC-315M/60S	315 Wp	32,79 V	9,61 A	10,03 A	40,16 V	19,24 %

### Design

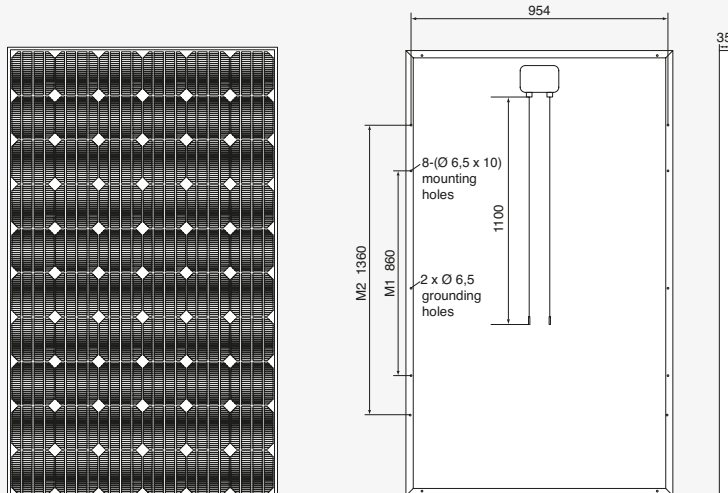
Frontside	3,2 mm hardened, low-reflection white glass
Cells	60 monocrystalline high efficiency cells
Backside	Composite film
Frame	35 mm silver aluminium frame

### Mechanical data

L x W x H	1650 x 992 x 35 mm
Weight	18,1 kg with frame

### Power connection

Socket	Protection Class IP68 (3 bypass diodes)
Wire	approx. 1,1 m, 4 mm <sup>2</sup>
Plug-in system	Plug/socket IP68



All dimensions in mm

### Limit values

System voltage	1000 VDC
NOCT (nominal operating cell temperature)*	45°C +/-2K
Max. load-carrying capacity	5400 N/m <sup>2</sup>
Reverse current feed IR	20,0 A
Permissible operating temperature	-40°C to 85°C / -40F to 185F

(No external voltages greater than U<sub>oc</sub> may be applied to the module)

\* NOCT, irradiance 800 W/m<sup>2</sup>; AM 1,5; wind speed 1 m/s; Temperature 20°C

### Temperature coefficients

Voltage U <sub>oc</sub>	-0,29 %/K
Current I <sub>sc</sub>	0,04 %/K
Output P <sub>mpp</sub>	-0,39 %/K

### Low-light performance

 (Example for AC-300M/60S)

I-U characteristic curve	Current I <sub>pp</sub>	Voltage U <sub>pp</sub>
200 W/m <sup>2</sup>	2,15 A	30,17 V
400 W/m <sup>2</sup>	3,71 A	31,20 V
600 W/m <sup>2</sup>	6,05 A	31,81 V
800 W/m <sup>2</sup>	7,57 A	32,10 V
1000 W/m <sup>2</sup>	9,27 A	32,37 V

### Packaging

Module pieces per pallet	30
Module pieces per HC-container	840