



PENTA Premium

Monocrystalline solar module

ASM6612P300 Series

- ▶ With innovative 5-busbar PERC cell
- ▶ Improved reliability
- ▶ Increased efficiency through reduced series resistance
- ▶ Homogenous dark appearance to meet highest optical standards

290	295	300	305	EN
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ELECTRICAL SPECIFICATIONS ¹				
STC ² rated output (P_{mpp}) [*]	290 Wp	295 Wp	300 Wp	305 Wp
Standard sorted output	-0/+3%			
Warranted power output STC ($P_{nominal}$)	290 Wp	295 Wp	300 Wp	305 Wp
Rated voltage (V_{mpp}) at STC	30.89 V	31.13 V	31.38 V	31.62 V
Rated current (I_{mpp}) at STC	9.47 A	9.56 A	9.64 A	9.72 A
Open circuit voltage (V_{oc}) at STC	39.55 V	39.62 V	39.69 V	39.76 V
Short circuit current (I_{sc}) at STC	9.56 A	9.63 A	9.69 A	9.76 A
Module efficiency	17.73%	18.03%	18.34%	18.65%
Rated output (P_{mpp}) at NOCT ³	214.6 Wp	218.2 Wp	221.9 Wp	225.5 Wp
Rated voltage (V_{mpp}) at NOCT	28.36 V	28.59 V	28.81 V	29.04 V
Rated current (I_{mpp}) at NOCT	7.57 A	7.63 A	7.70 A	7.77 A
Open circuit voltage (V_{oc}) at NOCT	36.49 V	36.56 V	36.62 V	36.68 V
Short circuit current (I_{sc}) at NOCT	7.69 A	7.75 A	7.80 A	7.86 A

Temperature coefficient (P_{mpp})	- 0.416 %/K	Maximum system voltage	1000 Voc
Temperature coefficient (I_{sc})	+0.037 %/K	Number of diodes	3
Temperature coefficient (V_{oc})	- 0.299 %/K	Reverse current loadability (I_r)	20 A
Normal operating cell temperature (NOCT)	48 °C ±2 °C	Maximum series fuse rating	15 A

¹ Measuring uncertainty P_{mpp} : +/- 3%; Tolerance for V_{oc} , I_{sc} , V_{mpp} and I_{mpp} : +/- 10 %

² Standard test conditions that are defined as follows:

1.000 W/m² irradiation at a spectral density of AM 1.5 and a cell temperature of 25 °C.

³ Nominal operating temperature of the cell at 800 W/m² irradiation, 20 °C ambient temperature, wind speed of 1 m/s

^{*} Manufactured in an ISO 9001/14001/50001 certified facility



RELATED PARAMETERS

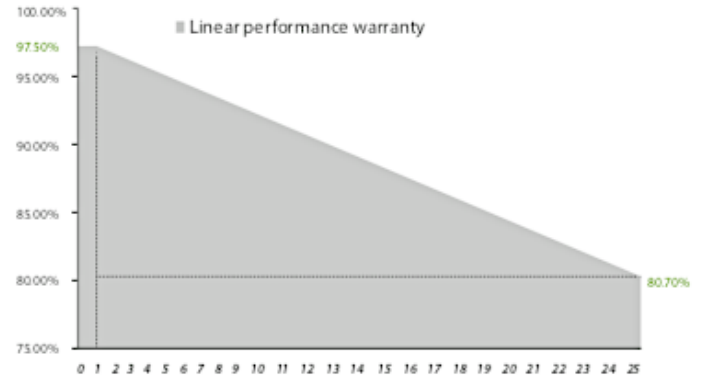
Cell type	Monocrystalline PERC cell, 5-busbar technology
Number of cells / cell arrangement	60 / 6 x 10
Cells dimension	157 x 157 mm ²

MECHANICAL SPECIFICATIONS

Outer dimensions (L x W x H) ⁵	1654 x 989 x 40 mm
Frame technology	Aluminum, black anodized
Module composition	Glass / EVA / Backsheet (black)
Weight	18.2 kg
Front glass thickness	3.2 mm
Junction box IP rating	IP 67
Cable length	1000 mm (incl. connector)
Cable core diameter	4 mm ²
Maximum load capacity ⁶	6000 Pa
Fire class (IEC 61730)	C
Connector type	MC4 original

QUALIFICATION AND LINEAR WARRANTIES

Product standard	IEC 61215 Ed. 2, IEC 61730
Extended product warranty ⁷	12 years
Performance warranty ⁷	Linear performance warranty
Year 1	>97.5 % of warranted output power
Year 25	>80.7 % of warranted output power



MODULE DIMENSION DETAILS

Front view	Side view	Rear view	Frame cross section
		<p>Frame without mounting holes</p>	

⁵ Dimensional tolerance: +/-2 mm

⁶ In accordance with IEC 61215 Ed. 2

⁷ According to the current warranty conditions of Astronergy Solarmodule GmbH