

PENTA⁺

Polycrystalline high power solar modules

ASM6610P Series

- ▶ With innovative 5-busbar poly PERC cell
- ▶ Improved reliability
- ▶ Increased efficiency through reduced series resistance
- ▶ Highly durable in different environments

275

280

285

290

EN

ELECTRICAL SPECIFICATIONS¹

	275 Wp	280 Wp	285 Wp	290 Wp
STC ² rated output (P _{mpp})*	275 Wp	280 Wp	285 Wp	290 Wp
Standard sorted output	-0/+3%			
Warranted power output STC (P _{nominal})	275 Wp	280 Wp	285 Wp	290 Wp
Rated voltage (V _{mpp}) at STC	31.30 V	31.53 V	31.75 V	31.98 V
Rated current (I _{mpp}) at STC	8.86 A	8.96 A	9.06 A	9.16 A
Open circuit voltage (V _{oc}) at STC	38.69 V	38.96 V	39.24 V	39.51 V
Short circuit current (I _{sc}) at STC	9.37 A	9.46 A	9.55 A	9.64 A
Module efficiency	16.8%	17.1%	17.4%	17.7%
Rated output (P _{mpp}) at NOCT ³	205.9 Wp	209.6 Wp	213.5 Wp	217.3 Wp
Rated voltage (V _{mpp}) at NOCT	28.73 V	28.93 V	29.14 V	29.35 V
Rated current (I _{mpp}) at NOCT	7.17 A	7.25 A	7.33 A	7.41 A
Open circuit voltage (V _{oc}) at NOCT	35.73 V	35.98 V	36.24 V	36.49 V
Short circuit current (I _{sc}) at NOCT	7.56 A	7.64 A	7.71 A	7.78 A
Temperature coefficient (P _{mpp})	-0.42 %/K	Maximum system voltage		1000 V _{dc}
Temperature coefficient (I _{sc})	+0.043 %/K	Number of diodes		3
Temperature coefficient (V _{oc})	-0.305 %/K	Reverse current loadability (IR)		20 A
Normal operating cell temperature (NOCT)	46 °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

⁴ Manufactured in an ISO 9001/14001/50001 certified facility



RELATED PARAMETERS

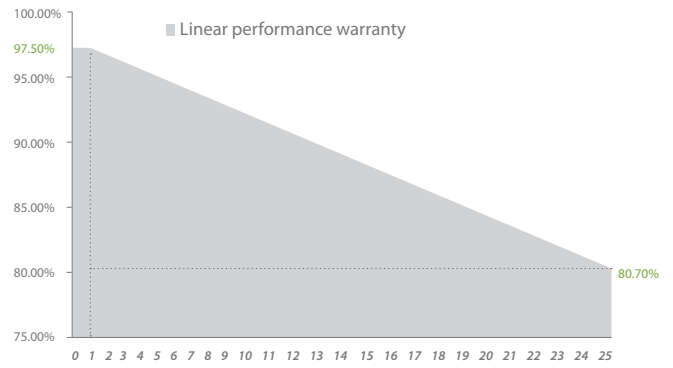
Cell type	Polycrystalline PERC cell, 5-busbar technology
Number of cells / cell arrangement	60 / 6 x 10
Cells dimension	157 x 157 mm ²

MECHANICAL SPECIFICATIONS

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

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 wholes</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

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