



PENTA

Monocrystalline solar module

ASM6610M (BL) Series

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

270 275 280 285 EN

ELECTRICAL SPECIFICATIONS ¹

	270 Wp	275 Wp	280 Wp	285 Wp
STC ² rated output (P _{mpp})*	270 Wp	275 Wp	280 Wp	285 Wp
Standard sorted output	-0/+3%			
Warranted power output STC (P _{nominal})	270 Wp	275 Wp	280 Wp	285 Wp
Rated voltage (V _{mpp}) at STC	31.11 V	31.26 V	31.41 V	31.56 V
Rated current (I _{mpp}) at STC	8.76 A	8.88 A	8.99 A	9.11 A
Open circuit voltage (V _{oc}) at STC	38.12 V	38.27 V	38.42 V	38.57 V
Short circuit current (I _{sc}) at STC	9.21 A	9.33 A	9.44 A	9.56 A
Module efficiency	16.51%	16.81%	17.12%	17.42%
Rated output (P _{mpp}) at NOCT ³	199.9 Wp	203.5 Wp	207.2 Wp	210.9 Wp
Rated voltage (V _{mpp}) at NOCT	28.42 V	28.56 V	28.70 V	28.83 V
Rated current (I _{mpp}) at NOCT	7.03 A	7.13 A	7.22 A	7.31 A
Open circuit voltage (V _{oc}) at NOCT	34.99 V	35.13 V	35.26 V	35.40 V
Short circuit current (I _{sc}) at NOCT	7.45 A	7.55 A	7.64 A	7.73 A

Temperature coefficient (P _{mpp})	- 0.42% / K	Maximum system voltage	1000 V _{dc}
Temperature coefficient (I _{sc})	+0.059% / K	Number of diodes	3
Temperature coefficient (V _{oc})	- 0.32% / 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

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



RELATED PARAMETERS

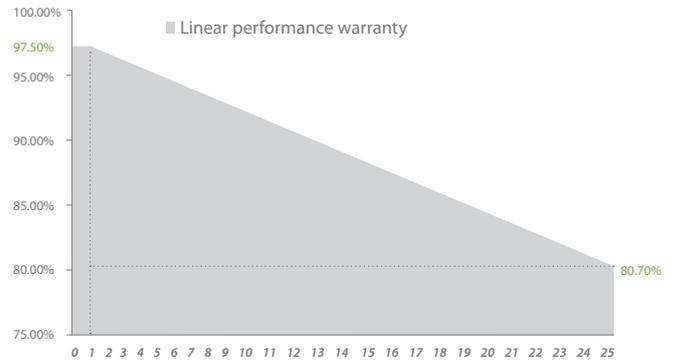
Cell type	Monocrystalline cell, 5-busbar technology
Number of cells / cell arrangement	60 / 6 x 10
Cells dimension	157 x 157 mm ²

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 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