



VIOLIN™

Crystalline PV Module ASM6610M Series

- ▶ With innovational 4-busbar cells
- ▶ Reducing cell series resistance
- ▶ Increasing cell efficiency
- ▶ More power output

275 280 285 290 295 300

EN

ELECTRICAL SPECIFICATIONS ¹

STC ² rated output (P _{max})	275 Wp	280 Wp	285 Wp	290 Wp	295 Wp	300 Wp
Standard sorted output	-0/+3%					
Warranted power output STC (P _{nominal})	275Wp	280 Wp	285 Wp	290Wp	295 Wp	300 Wp
Rated voltage (V _{mpp}) at STC	31.45 V	31.55 V	31.65 V	31.75 V	31.85 V	31.95 V
Rated current (I _{mpp}) at STC	8.86 A	8.98 A	9.09 A	9.21 A	9.32 A	9.44 A
Open circuit voltage (V _{oc}) at STC	38.05 V	38.15 V	38.25 V	38.35 V	38.45 V	38.55 V
Short circuit current (I _{sc}) at STC	9.40 A	9.50 A	9.60 A	9.70 A	9.80 A	9.90 A
Module efficiency	16.81%	17.12%	17.42%	17.73%	18.03%	18.34%
Rated output (P _{mpp}) at NOCT ³	205.6 Wp	208.9 Wp	212.2 Wp	215.6 Wp	219.0 Wp	222.4 Wp
Rated voltage (V _{mpp}) at NOCT	28.93 V	29.02 V	29.11 V	29.20 V	29.30 V	29.39 V
Rated current (I _{mpp}) at NOCT	7.11 A	7.20 A	7.29 A	7.38 A	7.47 A	7.57 A
Open circuit voltage (V _{oc}) at NOCT	35.17 V	35.26 V	35.35 V	35.44 V	35.54 V	35.63 V
Short circuit current (I _{sc}) at NOCT	7.60 A	7.68 A	7.76 A	7.84 A	7.92 A	8.00 A

Temperature coefficient (P _{mpp})	- 0.442 % / K	Maximum system voltage	1000 V _{dc}
Temperature coefficient (I _{sc})	+0.042 % / K	Number of diodes	3
Temperature coefficient (V _{oc})	- 0.329 % / 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 ISO9001/14001 certified facility



RELATED PARAMETERS

Cell type	Monocrystalline cell, 4-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

Cable diameter 4 mm²

Maximum load capacity ⁶ 6000 Pa

Fire class (IEC 61730) C

Connector type MC4 pluggable

QUALIFICATION AND LINEAR WARRANTIES

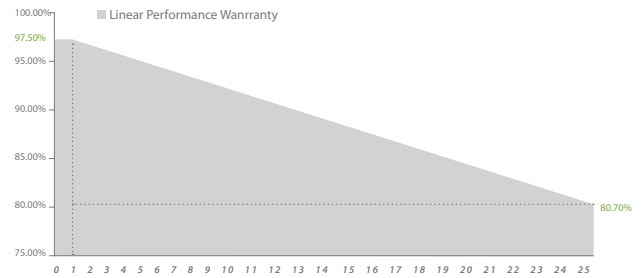
Product standard IEC 61215 Ed. 2, IEC 61730

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>⊙ No mounting holes on the frame.</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