

# VIOLIN<sup>TM</sup>

## Crystalline PV Module ASM6610P Series

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

250    255    260    265    270    275

EN

### ELECTRICAL SPECIFICATIONS <sup>1</sup>

STC <sup>2</sup> rated output (P <sub>max</sub> )	250 Wp	255 Wp	260 Wp	265 Wp	270 Wp	275 Wp
Standard sorted output	-0/+3%					
Warranted power output STC (P <sub>mpp min</sub> )	250 Wp	255 Wp	260 Wp	265 Wp	270 Wp	275 Wp
Rated voltage (V <sub>mpp</sub> ) at STC	30.29 V	30.54 V	30.79 V	31.04 V	31.29 V	31.54 V
Rated current (I <sub>mp</sub> ) at STC	8.33 A	8.42 A	8.52 A	8.61 A	8.70 A	8.80 A
Open circuit voltage (V <sub>oc</sub> ) at STC	36.91 V	37.18 V	37.45 V	37.72 V	37.99 V	38.26 V
Short circuit current (I <sub>sc</sub> ) at STC	8.80 A	8.89 A	8.98 A	9.06 A	9.15 A	9.23 A
Module efficiency	15.3%	15.6%	15.9%	16.2%	16.5%	16.8%
Rated output (P <sub>mpp</sub> ) at NOCT <sup>3</sup>	186.5 Wp	190.2 Wp	193.9 Wp	197.6 Wp	201.4 Wp	205.2 Wp
Rated voltage (V <sub>mpp</sub> ) at NOCT	27.70 V	27.93 V	28.16 V	28.39 V	28.61 V	28.84 V
Rated current (I <sub>mp</sub> ) at NOCT	6.73 A	6.81 A	6.89 A	6.96 A	7.04 A	7.11 A
Open circuit voltage (V <sub>oc</sub> ) at NOCT	33.97 V	34.22 V	34.47 V	34.72 V	34.96 V	35.21 V
Short circuit current (I <sub>sc</sub> ) at NOCT	7.11 A	7.18 A	7.25 A	7.32 A	7.39 A	7.45 A

Temperature coefficient (P <sub>mpp</sub> )	- 0.42 % / K	Maximum system voltage	1000 V <sub>oc</sub>
Temperature coefficient (I <sub>sc</sub> )	+0.044 % / K	Number of diodes	3
Temperature coefficient (V <sub>oc</sub> )	- 0.32 % / K	Reverse current loadability (I <sub>R</sub> )	20 A
Normal operating cell temperature (NOCT)	46 °C ± 2 °C	Maximum series fuse rating	15 A

<sup>1</sup> Measuring uncertainty P<sub>mpp</sub>: +/- 3 %; Tolerance for V<sub>oc</sub>, I<sub>sc</sub>, V<sub>mpp</sub> and I<sub>mp</sub>: +/- 10 %

<sup>2</sup> Standard test conditions that are defined as follows:

1.000 W/m<sup>2</sup> irradiation at a spectral density of AM 1.5 and a cell temperature of 25° C,

<sup>3</sup> Nominal operating temperature of the cell at 800 W/m<sup>2</sup> irradiation, 20°C ambient temperature, wind speed of 1 m/s

<sup>4</sup> Manufactured in an ISO9001/14001/50001 certified facility



## RELATED PARAMETERS

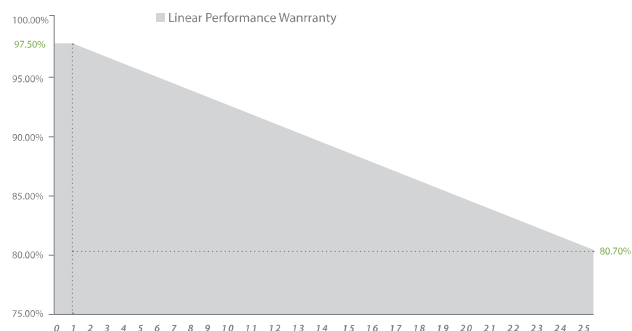
Cell type	Polycrystalline cell, 4-busbar technology
Number of cells / cell arrangement	60 / 6 x 10
Cells dimension	156 x 156 mm <sup>2</sup>

## MECHANICAL SPECIFICATIONS

Outer dimensions (L x W x H) <sup>5</sup>	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 mm <sup>2</sup>
Maximum load capacity <sup>6</sup>	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 <sup>7</sup>	12 years
Performance warranty <sup>7</sup>	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

<sup>5</sup> Dimensional tolerance: +/-2 mm

<sup>6</sup> In accordance with IEC 61215 Ed. 2

<sup>7</sup> According to the current warranty conditions of Astronergy Solarmodule GmbH