

FIRST SOLAR – FS-262 / FS-265 / FS-267 / FS-270 / FS-272 / FS-275

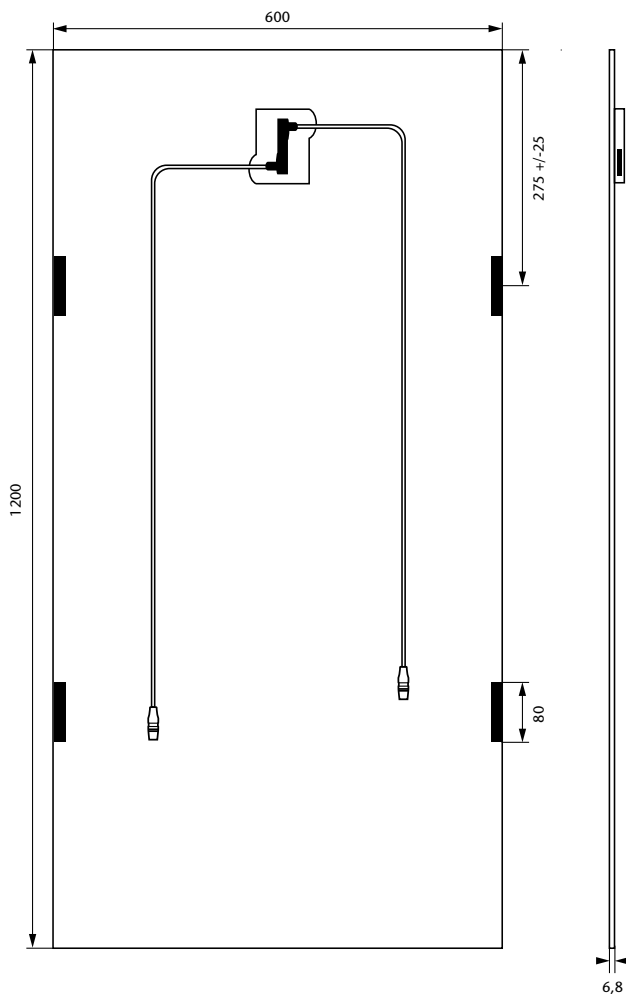
Solar modules are the key element of every solar power system as they convert sunlight into electricity. Their quality, reliability and performance are therefore critical for the yield and profit of your system. Solar modules based on thin-film technology absorb a particularly wide spectrum of sunlight. This enables the effective use of the sun's power – even under less than ideal sunlight conditions.



The advantages at a glance:

- 62.5; 65; 67.5; 70; 72.5 and 75 Wp power output available
- Tested independently from the manufacturer
- Reliable power generation through high temperature tolerance and high performance, even in diffuse sunlight
- High efficiency and stable output power provide reliably high performance over a period of many years
- 25-year performance guarantee* at 80 % of the minimal rated power output
- 10-year performance guarantee* at 90 % of the minimal rated power output
- Frameless solar module
- Pre-funded end-of-life take back and recycling

* The manufacturer's warranty conditions apply



Mechanical parameters

Length [mm]	1200
Width [mm]	600
Depth [mm]	6.8
Depth with connection socket [mm]	19.9
Weight [kg]	12
Connection socket (manufacturer)	First Solar
Positive cable (manufacturer/length [mm]/ cable cross-section [mm ²])	General Cable/610/3.2
Negative cable (manufacturer/length [mm]/ cable cross-section [mm ²])	General Cable/610/3.2
Plug connector (manufacturer/type)	Multi-contact/MC3
Front cover (material/thickness [mm])	Tempered glass/3.2
Cell type (quantity/technology)	116/CdS/CdTe
Cell embedding (material)	Ethylene vinyl acetate (EVA) with edge seal
Rear cover (material/thickness [mm])	Tempered glass/3.2
Frame (material/profile type)	Frameless

Warranties

Product warranty	5-year product limited warranty*
------------------	----------------------------------

Performance guarantee 10 years at 90% of the minimal rated power output*
 25 years at 80% the minimal rated power output*

* The manufacturer's warranty conditions apply

Qualifications and Certificates

IEC 61646

TÜV safety class II



First Solar has consistently focused on thin-film technology and is one of the international leading manufacturers of solar modules, primarily in the larger solar power plant sector. The company manufactures solar modules using a highly-developed semi-conductor coating process that reduces module manufacturing costs whilst ensuring high performance yields in the field.



Electrical parameters

Electrical parameters for STC (1000 W/m², 25 (+/- 2)°C, AM 1.5 according to EN 6090-4)

Article number	100285	100284	100287	100288	100270	100271
Power output [P_{mpp}]	62.50	65.00	67.50	70.00	72.50	75.00
Power output tolerances [%]	+/- 5	+/- 5	+/- 5	+/- 5	+/- 5	+/- 5
Efficiency [%]	8.68	9.03	9.38	9.72	10.07	10.42
Max. voltage V_{mpp} [V]	62.50	63.70	64.60	67.10	67.90	69.40
Max. current I_{mpp} [A]	1.00	1.02	1.05	1.04	1.07	1.08
Open circuit voltage V_{oc} [V]	86.00	87.00	87.00	89.00	90.00	92.00
Short circuit current I_{sc} [A]	1.17	1.17	1.18	1.19	1.19	1.20

Electrical parameters for 800 W/m², NOCT, AM 1.5 NOCT = Nominal Operating Cell Temperature, cell temperature under nominal operating conditions

Max. power output P_{max} [Wp]	46.90	48.80	50.60	52.50	54.40	56.30
Max. voltage V_{max} [V]	59.00	60.00	61.00	63.00	64.00	66.00
Max. current I_{mpp} [A]	0.80	0.82	0.84	0.83	0.85	0.85
Open circuit voltage V_{oc} [V]	80.00	81.00	80.00	83.00	83.00	86.40
Short circuit current I_{sc} [A]	0.96	0.96	0.97	0.97	0.97	0.97
Reverse current loading capability I_r [A]	2					
Max. permissible system voltage V_{max} [V]	1000					

Efficiency variance from 1000 W/m² to 200 W/m² (Tmodule = 25° C), + 2 (increase!)

Parameters of the thermal characteristics

NOCT [° C]	45
Temperature coefficient of the short circuit current I_{sc} [%/K]	+ 0.04
Temperature coefficient of the open circuit voltage V_{oc} [%/K]	- 0.25
Temperature coefficient of the MPP power P_{mpp} [%/K]	- 0.25

Operating conditions

Max. operating temperature [° C]	- 40 to + 85
Max. snow load [Pa]	according to IEC 61646
Max. wind load [Pa]	according to IEC 61646