

SOLAR MODULE



Sunways Solar Module SM 170U

Sunways SM 170U Solar Modules are equipped with high-quality Sunways Solar Cells, and therefore guarantee maximum reliability and power yield. With their graded output classes they enable custom-tailored planning of photovoltaic systems.

Category overview

Category:	multicrystalline
Module size	
(length x width):	2000 mm x 680 mm
Area:	1,36 m ²
Thickness incl. frame:	50 mm
Weight:	20 kg
Output classes:	175 / 170 / 165 / 160 Wp

Product features

- Integrated Sunways Solar Cells with high degree of efficiency for maximum yields
- Low output tolerance of ± 3 percent
- High reliability and quality
- Cells and modules manufactured in Germany
- 4 mm highly transparent solar glass and 50 mm aluminium frame profile for excellent stability and long life
- In-house cell development for optimised production processes and highest degrees of innovation

Module Designation/Article No.

SM 170U · 175 Wp :	SM170UA13
SM 170U · 170 Wp :	SM170UA12
SM 170U · 165 Wp :	SM170UA11
SM 170U · 160 Wp :	SM170UA10

Information and Sales

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Photovoltaic Technology

Technical Data of SM 170U

Output classes	175	170	165	160
Article No.	SM170UA13	SM170UA12	SM170UA11	SM170UA10

Electrical data at STC

Rated output P_{MPP} (W)	175	170	165	160
MPP voltage (V)	23,00	22,80	22,60	22,30
MPP current (A)	7,60	7,45	7,32	7,19
Open-circuit voltage (V)	29,60	29,30	29,10	28,90
Short-circuit current (A)	8,33	8,28	8,24	8,20

STC-Standard Test Conditions: Air mass AM 1,5 – Irradiation 1000 W/m² – Cell temperature 25°C

Electrical data at NOCT

Rated output P_{MPP} (W)	130	127	123	119
MPP voltage (V)	21,10	20,90	20,70	20,50
MPP current (A)	6,18	6,06	5,93	5,83
Open-circuit voltage (V)	27,70	27,40	27,20	27,10
Short-circuit current (A)	6,74	6,70	6,67	6,64

The NOCT values are typical values. NOCT: Nominal operating cell temperature (= 45°C)

Typical cell temperature with: Irradiation 800 W/m² – Ambient temperature 20°C – Wind speed 1 m/s

Other electrical parameters

System voltage (V)	870
Temperature coefficient P_{MPP} (%/°C)	-0,34
Temperature coefficient I_{SC} (%/°C)	0,06
Temperature coefficient U_{OC} (%/°C)	-0,32

Limit values

Permissible module temperature	-40 to +80°C
Installation specifications	two cross rails under the module, each 500 mm from end of module

Design

Cells	48 Sunways Solar Cells, multicrystalline
Cell dimensions	156 x 156 mm, completely square
Front	Solar glass 4 mm, highly transparent
Encapsulation	EVA - Solar Cells - EVA
Back	PLF-polyester laminated film
Frame	Aluminium, bright anodised
Connection	2 x 0,7 m solar cables with TYCO-Solarlok connectors
Bypass diodes	2 pieces

Qualifications and Certificates

Protection class II, IEC 61215, CE

Dimensional drawings

