

Polycrystalline Solar Panel 295-300W

Irradiance of 1000W/m², AM1.5 spectrum, cell temperature of 25°C. Specifications included in this datasheet are subject to change without prior notice.



Overview

High-Efficiency Polycrystalline Solar Modules

These polycrystalline solar modules are engineered for optimal energy conversion in residential, commercial, and utility-scale applications. Built with a robust design and high-quality materials, they offer excellent durability and reliable long-term performance. The modules feature advanced cell technology and are compliant with major international industry standards, ensuring consistent power output.

Electrical Characteristics

Electrical Characteristics		KMP/270	KMP/275	KMP/280	KMP/285	KMP/290	KMP/295	KMP/300
Model Number		270	275	280	285	290	295	300
Minimum Power (at STC)	P _{min} (W)	210	215	220	225	230	235	240
Power Tolerance	%	0 + 5%						
Maximum Power Voltage	V _{mp} (V)	36.29	36.43	36.56	36.72	36.79	36.93	37.15
Maximum Power Current	I _{mp} (A)	7.45	7.55	7.56	7.77	7.88	7.99	8.08
Open Circuit Voltage	V _{oc} (V)	43.49	43.7	43.92	44.06	44.21	44.35	44.5
Short Circuit Current	I _{sc} (A)	8.94	8.1	8.17	8.23	8.33	8.41	8.72
Minimum System Voltage	VOC	1500						
Cell Efficiency	%	15.4	15.7	16.0	16.3	16.6	16.8	17.1
Module Efficiency	%	14.0	14.2	14.5	14.7	15.0	15.2	15.5
Cells per Module	Pcs	72 (6 × 12)						
Cell Type		Polycrystalline silicon						
Cell Size	mm	156 × 156						
Busbars/Strings	Pcs	16bars/5pcs						
Max. Series Fuse Rating	A	15A						
Temperature coefficient of Voc	%/°C	-0.85						
Temperature coefficient of Isc	%/°C	+0.20						
Temperature coefficient of power	%/°C	-0.47						
MPPC Normal operating cell temperature	°C	40 ± 2						
Operating Temperature	°C	-40 ~ +85						
Mechanical Characteristics								
Dimensions	mm	1564 × 990 × 30						
Weight	kg	25.5						
Type of Junction Box		15W certified IP65						
Cable Type, Diameter		Typ certified, 4mm ² / 100cm in length						
Connector		compatible to Type 4 (MC4)						
Tempered Glass		3.2 mm, high transmission, low iron						

Detailed electrical characteristics and performance metrics for the 295W and 300W models.

Power Output Range

295 W

Minimum Power

300 W

Maximum Power

Electrical Specifications (STC)

Parameter	295W Model	300W Model
Max Power (P _{max})	295W	300W
Max Power Voltage (V _m)	36.93V	37.15V
Max Power Current (I _m)	7.99A	8.08A
Open Circuit Voltage (V _{oc})	44.35V	44.5V
Short Circuit Current (I _{sc})	8.41A	8.72A

Efficiency

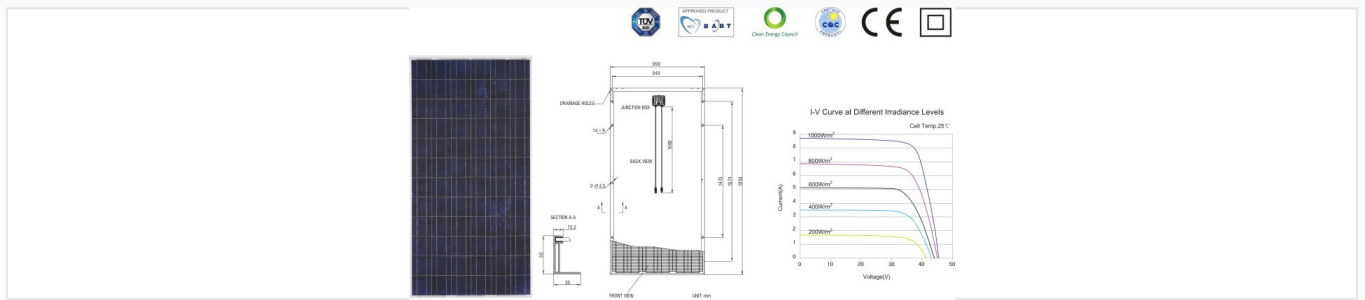
17.1 %

Max Cell Efficiency

15.5 %

Max Module Efficiency

Mechanical Characteristics



Technical diagram illustrating module dimensions, drainage hole placement, and I-V curve performance.

Construction Features

- 72 (6x12) Polycrystalline silicon cells
- 3.2mm Tempered glass (high transmission, low iron)
- IP65 TUV certified junction box
- Drainage holes for water runoff

Dimensions	1954 x 990 x 50 mm
Weight	23.5 kg

Certifications & Compliance

Certifications

TUV SUD • MCS • BABT • Clean Energy Council • CE

Operating Conditions

Temperature Coefficients

Parameter	Value
Isc	+0.05 %/°C
Voc	-0.35 %/°C
Power	-0.47 %/°C

Operating Temperature Range	-40°C to +85°C
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