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								
Model Number		KM(P)270	KM(P)275	KM(P)280	KM(P)285	KM(P)290	KM(P)295	KM(P)300
Maximum Power as per STC	Pmax(W)	270	275	280	285	290	295	300
Power Tolerance	%	0~+5%						
Maximum Power Voltage	Vm(V)	36.29	36.43	36.56	36.72	36.79	36.93	37.15
Maximum Power Current	Im(A)	7.45	7.55	7.66	7.77	7.89	7.99	8.08
Open Circuit Voltage	Voc(V)	43.49	43.7	43.92	44.06	44.21	44.35	44.5
Short Circuit Current	Isc(A)	8.04	8.1	8.17	8.23	8.33	8.41	8.72
Maximum System Voltage	VDC	1000						
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						
Bypass Diodes	Pcs	10Amp, 6 pcs						
Max. Series Fuse Rating	A	15A						
Temperature coefficient of Isc	%/℃	+0.05						
Temperature coefficient of Voc	%/℃	-0.35						
Temperature coefficient of power	%/℃	-0.47						
NOCT- Nominal operating cell temperature	℃	47 ± 2						
Operating Temperature	℃	-40~+85						
Mechanical Characteristics								
Dimensions	mm	1954 × 990 × 50						
Weight	Kg	23.5						
Type of Junction Box		TUV certified, IP65						
Cable Type, Diameter		TUV certified, 4mm², 100 cm 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	300 W
Minimum Power	Maximum Power

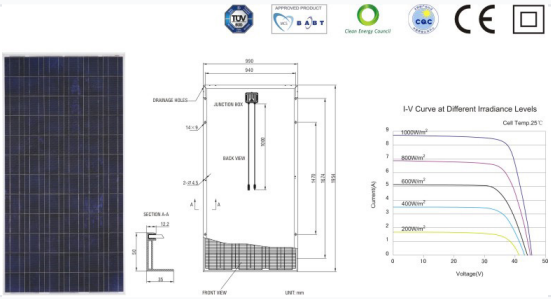
Electrical Specifications (STC)

Parameter	295W Model	300W Model
Max Power (Pmax)	295W	300W
Max Power Voltage (Vm)	36.93V	37.15V
Max Power Current (Im)	7.99A	8.08A
Open Circuit Voltage (Voc)	44.35V	44.5V
Short Circuit Current (Isc)	8.41A	8.72A

Efficiency

17.1 %	15.5 %
Max Cell Efficiency	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