



# Sun-Earth

## Poly-Crystalline Photovoltaic Module

TPB156×156-72-P 280W / 285W / 290W

### Anti-reflective solar glass

Sun Earth modules use a textured cell surface and tempered glass to reduce sunlight reflection. An anti-reflective coating provides a uniform blue color that increases the absorption of light in all weather conditions.

### Long service life

Sun Earth warrants that the modules will produce a minimum of 80% of rated power for at least 25 years and will produce a minimum of 90% of rated power for at least 10 years.

Sun Earth warrants the workmanship and materials for 5 years.

### Excellent construction

Sun Earth modules have been manufactured to exacting performance requirements. The modules resist corrosion caused by water and environmental conditions. They are designed to resist damage caused by hail, extreme weather and rapid temperature changes.

### Real life examples

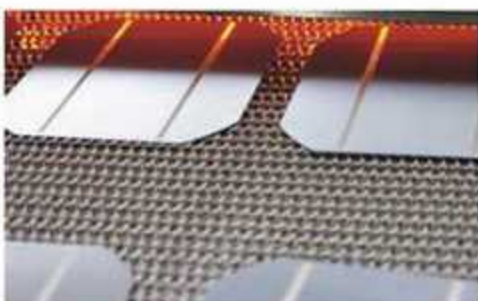
Sun Earth modules are in use worldwide. They are found in every photovoltaic application, from roof tops and telecommunication towers to utility grade power plants. Our modules are exported globally and we continue to enjoy an outstanding reputation.



CSI



CEC



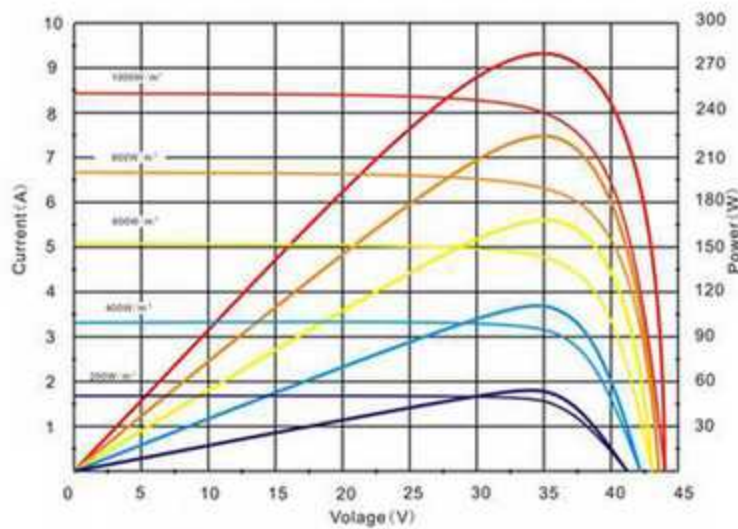
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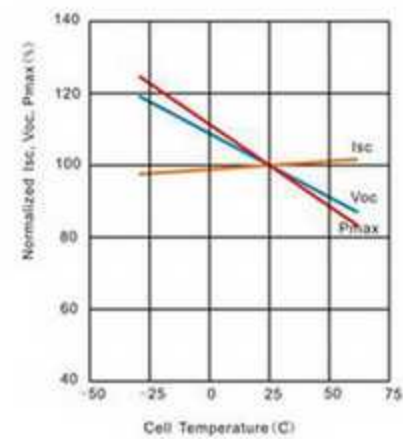
### Electrical Characteristics

Maximum Power (Pmax)	280W	285W	290W
Power Tolerance (%)	0/+3%	0/+3%	0/+3%
Maximum Power Voltage (Vmp)	35.0	35.1	35.2
Maximum Power Current (Imp)	8.00	8.12	8.24
Open circuit Voltage (Voc)	44.0	44.1	44.2
Short circuit Current (Isc)	8.43	8.51	8.59
Maximum System Voltage (Vdc)	1000	1000	1000
Module Efficiency	14.4%	14.7%	14.9%
Temp coefficient Voc		-0.35%/°C	
Temp coefficient Isc		+0.05%/°C	
Temp coefficient Power		-0.45%/°C	
NOCT		45.5°C	

### I-v curves (280W)



### Temperature Dependence of Isc, Voc, Pmax



### Standard Test Conditions

AM: 1.5

Irradiation: 1000W/m<sup>2</sup>

Tc 25°C

### Mechanical Characteristics

Weight (Kg)	23.5Kg
Frame structure (Material, Corners)	Anodized Aluminium
Front side	Glass
Front glass thickness	3.2mm
Encapsulant	EVA
Back side	TPT
Junction Box	Ip65

### Cells

Brand Name of Solar Cells	Sun-Earth
Cell Type	Poly Crystalline Cell
Cell Size	156×156mm
Number Cells	72 in series

### Absolute Maximum Ratings

Application Class	A
Fire Resistance Class	C
Maximum Over-Current Rating:	16A
Operating Temperature	-40°C ~ +85°C
Storage Temperature	-40°C ~ +85°C
Maximum Load Capacity	5400Pa
Maximum Hail diameter@80Km/h	25mm
Maximum wind resistance	210KM/h

### Dimensions (tolerance ±2mm)

