



**Manufacture** NINGBO SOLAR ELECTRIC POWER CO., LTD.  
**Model** TDB125x125-72-P  
**Power** 170W

TDB series silicon solar modules use breakthrough technology perfected by Ningbo Solar's nearly 40 years of manufacturing technology, designed strictly according to IEC61215 standard. These modules use a textured cell surface and tempered glass for solar use only to reduce reflection of sunlight. An anti-reflective coating provides a uniform blue color and increases the absorption of light in all weather conditions. Sun-earth brand solar modules have the following advantages:



Long service life: The modules can serve for at least 25 years.

Good encapsulated performance: It can resist corrosion caused by rain, water and gas etc.

Safely and reliable: No maintenance needed and having steady and reliable electric performance.

Good anti-shocking performance: It can resist hail and work under atrocious weather that temperature changes quickly.

Convenient installation: It can be installed according to customer's requirement. Installation period is short and workload is small.

Favorable characteristics: Silicon solar cells have stable electric characteristics and full peak power. Testing results comply with national standards.

TDB series solar modules have applied in many areas, such as building roofs, photovoltaic power plants of different scales, telecommunication, electric power, weather stations, broadcast and television, petroleum, navigation marks, railways and road, etc. Our products have exported to Occident, Africa and Southeast Asia, etc and have good reputation among the whole world.



Sun-Earth brand solar modules installed at mountain with altitude more than 2000m.



Sun-Earth brand solar modules were widely used in European photovoltaic power plants.



Sun-Earth brand solar modules applied in telecommunication stations.

Hail test: 227±2g steel ball fall to the surface of cell from 100cm high. The appearance is normal, and the electric characteristic according to the requirement as well.

Electrical Characteristics			Mechanical Characteristics		
Maximum Power (Pmax)	170W	Watt	Dimensions	Lenght (mm)	1580 mm
Power Tolerance	±5	%		Width (mm)	808 mm
Maximum Power Voltage (Vmp)	35.0	Volt		Depth (mm)	46 mm
Maximum Power Current (Imp)	4.86	Ampere	Installation Dimensions	Lenght (mm)	1176 mm
Open circuit Voltage (Voc)	44.0	Volt		Width (mm)	737 mm
Short circuit Current (Isc)	5.36	Ampere	Weight(kg)	16 Kg	
Maximum System Voltage	600V(U.S. & IEC 61215 rating) 750V (TüV Rheinland rating)		Frame structure (Material, Corners)	Aluminium	
Module Efficiency ( $\eta_m$ )	13.3	%	Front side	Glass	
Temp. coefficient Voc	-0.35±0.02	%/°C	Front glass thickness	3.2 mm	
Temp. coefficient Isc	+0.04±0.0015	%/°C	Encapsulant	EVA	
Temp. coefficient Power	-0.5±0.05	%/°C	Back side	TPT	
Nominal operating cell temperature (NOCT)	47°C±2°C		Junction Box	Sun-Earth	
Cells			Packing/ Transport Information		
Brand Name of Solar Cells	Sun-Earth		Packing configuration	10 pcs per carton	
Cell Type	Single Crystal Cell		Size of Carton	1630*550*900 mm	
Cell Size	125*125	mm	Weight of Carton	9 Kg	
Cell Shape	Quasi Square		Cartons per 20' container	24(x 10pcs)	cartons (x modules)
Number Cells	72 in series		Cartons per 40' container	56(x 10pcs)	cartons (x modules)
Encapsulated Solar Cells Efficiency ( $\eta_c$ )	15.9%		Absolute Maximum Ratings		
Standard Test Conditions			Operating Temperature	-40°C ~ +90°C °C	
AM	1.5		Storage Temperature	-40°C ~ +90°C °C	
Irradiation	1000 W/m <sup>2</sup>		Dielectric Isolation Voltage	1000 VDC max 1000V	
Tc	25 °C		Maximum Wind Resistance	60m/s	N/m <sup>2</sup> or max Km/h
			Maximum Load Capacity	200 Kg/m <sup>2</sup>	
			Maximum Hail diameter @ 80Km/h	25mm	@ 80Km/h

