



Manufacture NINGBO SOLAR ELECTRIC POWER CO., LTD.
Model TDB125×125-72-P
Power 180W

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.

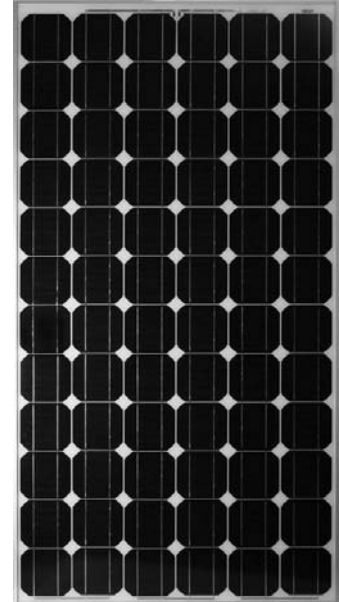
Good encapsulated performance: It can resist corrosion caused by rain, water and gas etc.

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 5000M.



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



Sun-Earth brand solar modules applied in telecommunication stations.

Hail test: $227 \pm 2g$ 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.



Model TDB125x125-72-P

Electrical Characteristics		
Maximum Power (Pmax)	180W	Watt
Power Tolerance	±5	%
Maximum Power Voltage (Vmp)	35.4	Volt
Maximum Power Current (Imp)	5.08	Ampere
Open circuit Voltage (Voc)	44.2	Volt
Short circuit Current (Isc)	5.58	Ampere
Maximum System Voltage	750	Volt DC
Module Efficiency (η m)	14.1	%
Temp. coefficient Voc	-0.35±0.02	%/°C
Temp. coefficient Isc	+0.04±0.0015	%/°C
Temp. coefficient Power	-0.5±0.05	%/°C
Nominal operating cell temperature (NOCT)	47°C±2°C	°C

Mechanical Characteristics		
Dimensions	Lenght (mm)	1580 mm
	Width (mm)	808 mm
	Depth (mm)	46 mm
Installation Dimensions	Lenght (mm)	1176 mm
	Width (mm)	737 mm
Weight(kg)	16 Kg	
Frame structure (Material, Corners)	Aluminium	
Front side	Glass	
Front glass thickness	3.2 mm	
Encapsulant	EVA	
Back side	TPT	
Junction Box	Sun-Earth	

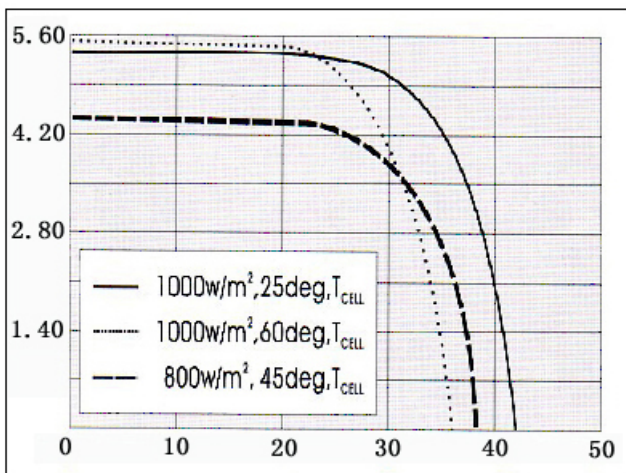
Cells		
Brand Name of Solar Cells	Sun-Earth	
Cell Type	Mono Crystalline Cell	
Cell Size	125*125	mm
Cell Shape	Quasi Square	
Number Cells	72	in series
Encapsulated Solar Cells Efficiency (η c)	16.9%	

Packing/ Transport Information		
Packing configuration	10 pcs per carton	
Size of Carton	1630*550*900 mm	
Weight of Carton	9 Kg	
Cartons per 20' container	24(x 10pcs)	cartons (x modules)
Cartons per 40' container	56(x 10pcs)	cartons (x modules)

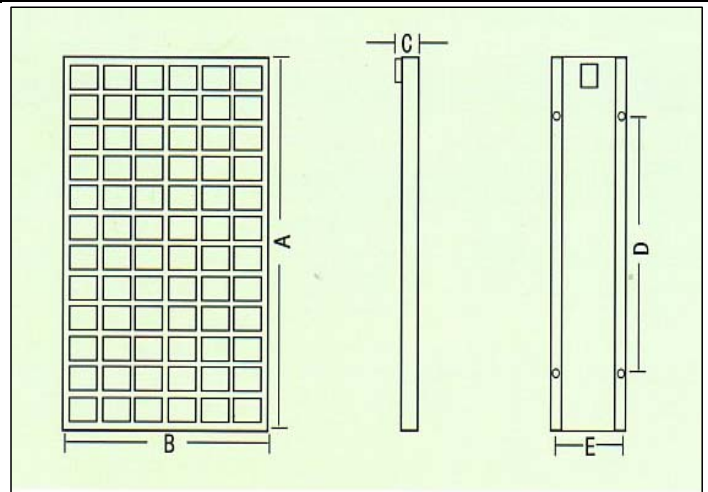
Standard Test Conditions	
AM	1.5
Irradiation	1000W/m2
Tc	25°C

Absolute Maximum Ratings		
Operating Temperature	-40°C ~ +90°C °C	
Storage Temperature	-40°C ~ +90°C °C	
Dielectric Isolation Voltage	1000	VDC max 1000V
Maximum Wind Resistance	60m/s	N/m2 or max Km/h
Maximum Load Capacity	200 Kg/m2	
Maximum Hail diameter @ 80Km/h	25mm	@ 80Km/h

Current-Voltage Curves



Module Drawing with measures



A: 1580MM B: 808MM C:46MM D:1176±2MM E : 737±2MM

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