# **NEOSUN NS-320M**

This 72-cell Monocrystalline Solar PV Module with the latest innovative 5BB cells offers high cell performance efficiency of up to 18.9% (16.5% module efficiency).

With its high capacity, long service life and well-engineered module design this solar panel is a great solution for any solar power plants.

18.9%

## **EXCELLENT CELLS EFFICIENCY**

We use only 5BB Grade-A Cells with efficiency up to 18.9% achieved through advanced cell manufacturing technology



### **EXCELLENT WEAK LIGHT PERFORMANCE**

Solar modules from NEOSUN Energy have excellent weak light performance (morning, evening and cloudy days)



#### POSITIVE POWER TOLERANCE

Guarantee from 0 to +10W as power tolerance, you can obtain more power than conventional output



#### SAND AND SALT PROTECTION

Reliable quality leads to a better sustainability even in harsh environment like desert or coastline

25

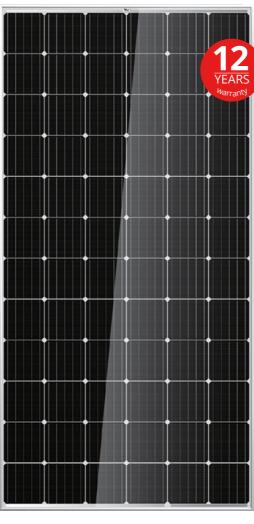
#### YEARS POWER WARRANTY

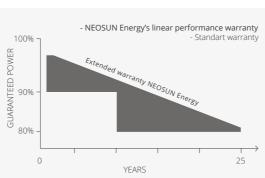
Even after 25 years our solar panel keeps at least 80% of its initial power output – because it's NEOSUN



## HIGH WIND AND SNOW RESISTANCE

NEOSUN Energy modules withstand snow load of up to 550 kg/m² and wind speed of up to 162km/h





For a period of twenty-five (25)years commencing on the Warranty Start Date, loss of power output

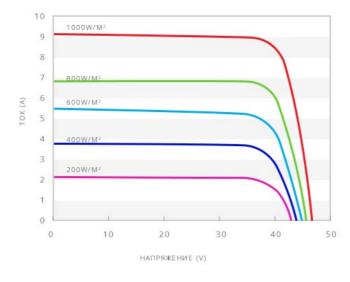
of the nominal power output measured at Standard Test Conditions (ST C) for the Product(s) shall not exceed:

- 1. For Polycrystalline Products: 2% in the first year, thereafter 0.67% per year.ending with 82% in the 25th year after the Warranty Start Date.
- 2. For Monocrystalline Products: 3 % in the first year, thereafter 0.67% per year, ending with 81 % in the 25th year after the Warranty Start Date.

The Warranty Start Date shall be defined as the date of the Bill of Lading date

#### I-V curves

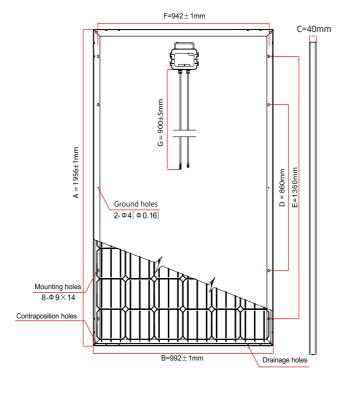
I-V Curves of PV module NEOSUN 320W at different light power



Electrical characteristics				
Solar cells:	Mono-crystalline 5BB, 6 inch, 6x12 pcs			
Max Power	320W			
Power Tolerance	0 to +10W			
Voltage at Pmax (Vmp)	37.8V			
Current at Pmax (Imp)	8.47A			
Open-Circuit Voltage (Voc)	46.0V			
Short-Circuit Current (lsc)	8.97A			
Module Efficiency	16.5%			
Max-System Voltage (VDC)	1000V(IEC), 600V(UL)			
No. of Bypass Diodes (pcs.)	3			
Max Series Fuse (A)	15A			
Temperature Coefficient of Pmax	-0.40% / °C			
Temperature Coefficient of Voc	-0.30% / °C			
Temperature Coefficient of lsc	0.06% / °C			
Nominal Operating Cell t°C	g Cell t°C 45 ± 2°C			
1676 6 151 (4000)444 0 4 5 444				

<sup>\*</sup>STC Conditions (1000W/m2; 1.5 AM and 25°C Cell temperature)

## **Dimensions**



A	Caution: read safety and installation instructions before using this product

Mechanical Characteristics				
Cable type, Diameter and Length	Φ =4mm2, L=900±5mm			
Type of Connector	Compatible type MC4			
Dimension AxBxC	1956x992x40mm			
Weight	21.6 kg			
Front Glass	Tempered with AR coating			
Junction Box (protection degree)	IP67 Rated			
Frame	Clear anodized aluminum alloy			

Qualification Test Parameters			
Dielectric Insulation Voltage	6000VDC max		
Operating Temperature	-40°C to +85°C		
Max load	5400Pa		
Hailstone impact	25mm at 23m/s		
Fire safety class	Class C		

Packaging Configuration				
Container	20'GP	40'HQ		
Pieces per pallet	52	56		
Pallets per container	5	11		
Pieces per container	260	616		



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