



## TopCon N-Type SS-M-230



### Quality Product

All Manufactured modules are tested 100% by EL (Electroluminescence) during the Production Process & Free from micro cracks.

Our high-performance modules are highly efficient, reliable and provide optimal output.

The company manufactures solar modules in compliance with global standard including MNRE, IEC 61215, 61730-1, 61730-2, 61701, UL 1703, UL 61730, ISO 9001:2008 & ISO 14001:2004 & 18001:2007.

### High Efficiency .

High Module efficiency is obtaining top performance even in diffused light conditions.

We are leaders in providing our customers with maximum sunlight conversion.

### Application Possibilities

Residential and Commercial rooftops, Car ports, Solar Farming, Balconies, Awnings, Street lights, Fences, and Canopies.

### Our Team

We have a team of qualified experts and engineers making sure that modules produce maximum power. We pride ourselves in caring for each individual customer needs with detailed attention. Our end goal is to give a highly efficient product with exceptional customer service.

### Guarantee

Our product is durable and has 10 years performance warranty. Integrated manufacturing of cells & modules in production line guarantees optimum performance.

### US OFFICE:

Sonali Energies USA LLC  
111 Charlotte Place Suite 101A  
Englewood Cliffs, NJ 07632  
Office Tel: 201-568-1424





## TopCon N-Type SS-M-230

### Electric Performance Parameter

Model	SS-M-230
Nominal Maximum Power (Pmax/W)	230
Optimum Operating Voltage (Vmp/V)	21.22
Optimum Operating Current (Imp/A)	10.85
Open Circuit Voltage (Voc/V)	23.66
Short Circuit Current (Isc/A)	11.40
Module Efficiency STC (%)	19.74%

\* Measurement Power Tolerance on Power 0 / +%

\* Under Standard Test Conditions (STC) of irradiance of 1000W/m<sup>2</sup>

\* Maximum System Voltage: 1000v IEC/UL

\* Normal Operating cell Temperature (NOCT) of irradiance of 800W/m<sup>2</sup>, 45± 2° C

\* Spectrum AM 1.5 and cell temperature of 25 °C

### Mechanical Parameter

Module Dimensions	1490 X 680 X 35 mm / 58.66 X 26.77 X 1.38 in
Weight	11.17 kgs / 24.62 lbs
Cell Size (Mono Topcon)	210x130 mm / 8.27x5.12 in
No Of Cell	33 (11 X 3)
Junction Box	IP67, 2 Bypass diodes
Solar Cable Length (4mm <sup>2</sup> )	900mm (35.43inch)
Connectors	MC4 compatible
Glass (Tempered & Low Iron )	3.2mm (0.125in) ARC
Encapsulate	EVA
Back Cover	White Backsheet
Frame (Silver)	Anodized Aluminum Alloy
Max.Fuse Rating	15

### Temperature Coefficient

Coefficient of Current	+0.048% /°C
Coefficient of Voltage	-0.29% /°C
Coefficient of Power	-0.35% /°C

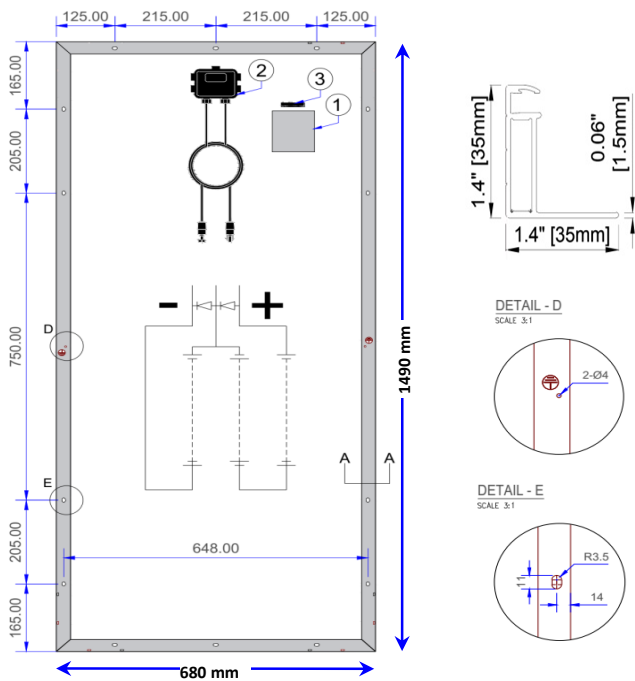
### Tested Operating Conditions

Temperature Cycling Range	-40°C to 85°C
Humidity Freeze, Damp Heat	85% RH

### Product Warranty

Product Warranty	5 Years
Linear Performance Warranty	10 Years

### Module Drawing



### IV Curve

