

# SN 60-Cell<sup>1,000V</sup>

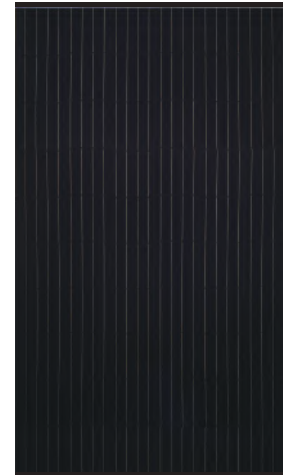
Monocrystalline PV Module

SN290M-10 SN295M-10 SN300M-10 SN305M-10



## 290 ~ 305 Watt

Continuously manufacturing PV modules since 1992, S-Energy is one of the most experienced module makers in the industry. More than 25 years of operating data support S-Energy's reputation as the best overall quality, performance, and value for solar investors. The cutting-edge SN-series leads the industry again in advanced design, construction, and performance. The SN-series is the ideal module for any system size in any given environment. With the quality to last the lifetime of the PV system, S-Energy's SN-series provides the confidence and assurance to each and every one of our customers.



### Features



#### ENHANCED EXTERNAL LOAD / IMPACT

Snow Load : 5,400 Pa (30T) / 8,400 Pa (40T)  
 Wind Load : 2,400 Pa (30T) / 5,400 Pa (40T)  
 Hail Impact : 30.7m/s (speed ball)



#### POWER ADVANTAGE

25-year, linear power warranty  
 > 97.5% nominal power during 1st year  
 Positive tolerance up to +5W



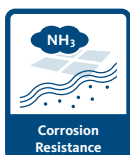
#### PID RESISTANCE

Enhanced potential induced degradation



#### FIRE SAFETY

UL1703 Fire Classification : Type 1, Type 2



#### ENVIRONMENT RESISTANCE

Suitable for extreme conditions  
 Resistant to high salt mist and ammonia  
 (certified by TÜV Rheinland)



#### AVAILABLE IN TWO THICKNESSES

Standard (30T) and 40T for more durability

### Qualifications & Certifications

IEC 61215 & 61730, UL 1703, ISO 9001,  
 ISO 14001, OHSAS 18001, WEEE



### Mechanical Characteristics

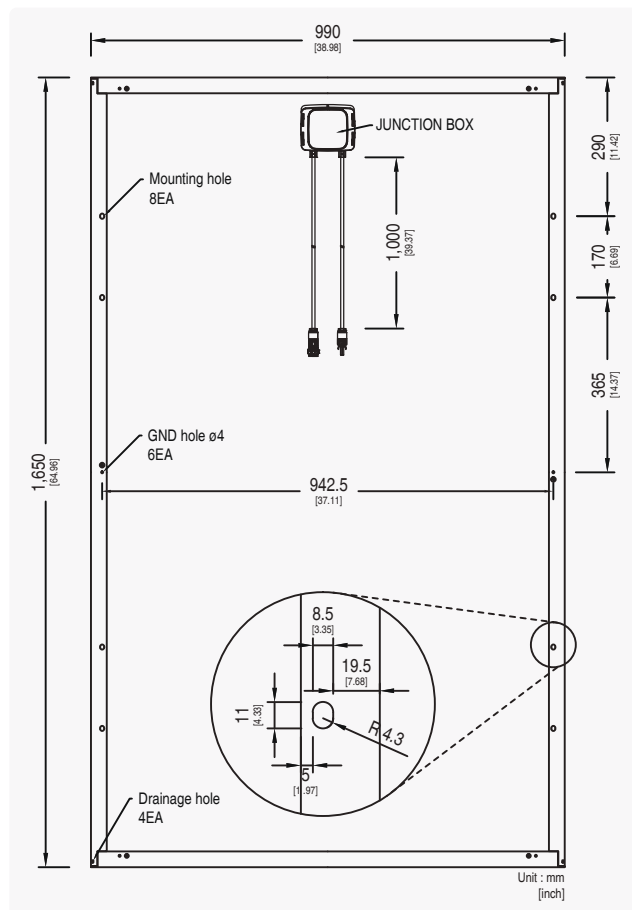
Solar Cells	Monocrystalline 156 x 156mm (6 inches)
Number of Cells	60 Cells (6x10 Matrix)
Dimensions	1,650 x 990 x 30mm (30T) / 1,650 x 990 x 40mm (40T)
Weight	17kg (37.48 lbs)
Front Glass	High-Transmittance Low Iron Tempered Glass
Frame	Anodized Aluminum Black Frame
Output Cables	PV Wire (PV1-F), 12AWG (4mm <sup>2</sup> ), Cable Length : 1,000mm
Connectors	MC4 Connectable

### Warranty

Product Warranty	10-year Limited Product Warranty
Performance Warranty	Minimum Power Output for Year 1 : 97.5%
	Maximum Power Decline from Year 2 to 24 : 0.7%
	Power Output at year 25 : 80.7%

### Electrical Characteristics

STC (Irradiance 1,000W/m <sup>2</sup> , module temperature 25°C, AM=1.5)	SN290M-10	SN295M-10	SN300M-10	SN305M-10
Rated Power (P <sub>max</sub> )	290W	295W	300W	305W
Voltage at P <sub>max</sub> (V <sub>mp</sub> )	32.0V	32.4V	32.8V	33.2V
Current at P <sub>max</sub> (I <sub>mp</sub> )	9.05A	9.10A	9.14A	9.18A
Warranted Minimum P <sub>max</sub>	290W	295W	300W	305W
Short-Circuit Current (I <sub>sc</sub> )	9.63A	9.66A	9.68A	9.71A
Open-Circuit Voltage (V <sub>oc</sub> )	39.6V	39.7V	39.9V	40.1V
Module Efficiency	17.8%	18.1%	18.4%	18.7%
Operating Module Temperature	-40°C to + 85°C			
Maximum System Voltage	1,000V(IEC) / 1,000V(UL)			
Maximum Series Fuse Rating	20A			
Maximum Reverse Current	20.25A			
Power Tolerance	0 ~ +5 W			

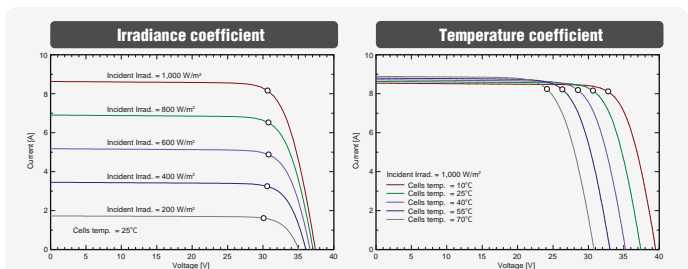


### Temperature Characteristics

Temperature coefficient of I <sub>sc</sub>	0.046 % / °C
Temperature coefficient of V <sub>oc</sub>	-0.282 % / °C
Temperature coefficient of power	-0.394 % / °C
NOCT (T <sub>air</sub> 20°C ; Irradiance 800W/m <sup>2</sup> ; Wind 1m/s)	45±2 °C

### Packing Configuration

	30T	40T
Container	40' H/C	40' H/C
Modules Per Pallet	25pcs	25pcs
Pallets Per Container	28pallets	28pallets
Modules Per Container	700pcs	700pcs



### Remarks :

P<sub>max</sub> measurement tolerance : ±2.5%  
 S-Energy uses triple AAA class simulator.  
 Specification subject to change without prior notice. S-Energy reserves the rights of final interpretation.  
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