

SN 60-Cell^{1,000V}

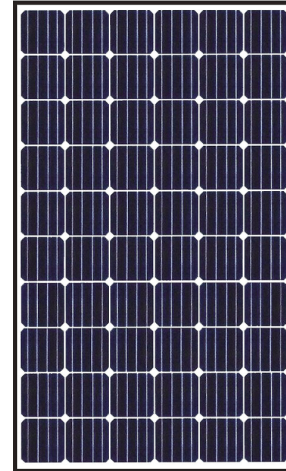
Monocrystalline PV Module

SN280M-10 SN285M-10 SN290M-10 SN295M-10 SN300M-10



280 ~ 300 Watt

Continuously manufacturing PV modules since 1991, S-Energy is one of the most experienced module makers in the industry. More than 20 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



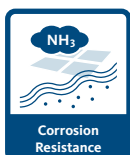
PID RESISTANCE

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

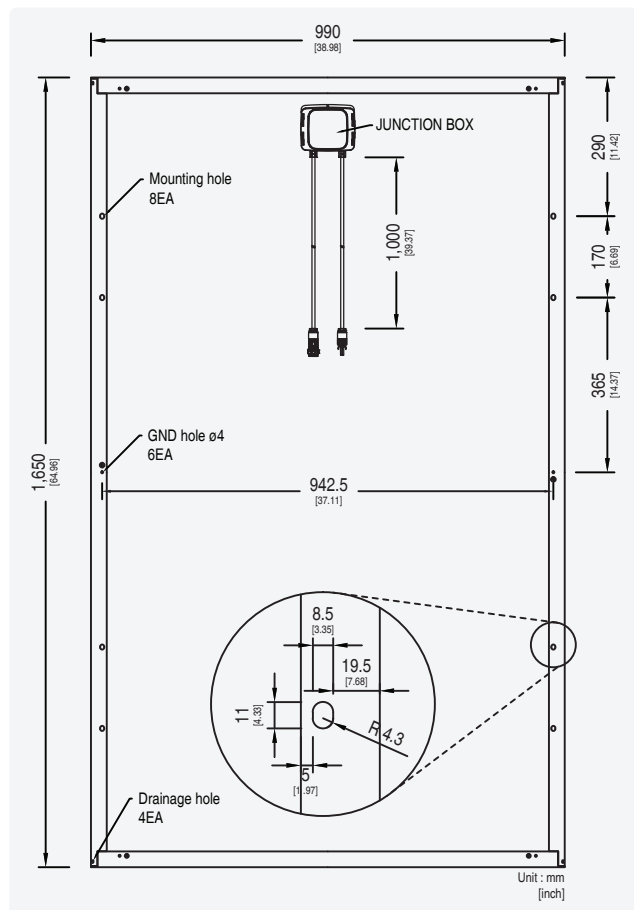
Solar Cells	Monocrystalline 156 x 156mm (6 inches)
Number of Cells	60 Cells (6x10 Matrix)
Dimensions	1,650 x 990 x 30mm (30T) / 1,650 x 990 x 40mm (40T)
Weight	17kg (37.48 lbs)
Front Glass	High-Transmittance Low Iron Tempered Glass
Frame	Anodized Aluminum Frame (Silver / Black)
Output Cables	PV Wire (PV1-F), 12AWG (4mm ²), 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 ² , module temperature 25°C, AM=1.5)	SN280M-10	SN285M-10	SN290M-10	SN295M-10	SN300M-10
Rated Power (P _{max})	280W	285W	290W	295W	300W
Voltage at P _{max} (V _{mp})	31.7V	32.1V	32.6V	33.1V	33.6V
Current at P _{max} (I _{mp})	8.84A	8.87A	8.89A	8.91A	8.93A
Warranted Minimum P _{max}	280W	285W	290W	295W	300W
Short-Circuit Current (I _{sc})	9.40A	9.46A	9.50A	9.54A	9.57A
Open-Circuit Voltage (V _{oc})	40.2V	40.5V	40.7V	40.9V	41.0V
Module Efficiency	17.14%	17.45%	17.75%	18.06%	18.37%
Operating Module Temperature	-40°C to +85°C				
Maximum System Voltage	1,000V(IEC) / 1,000V(UL)				
Maximum Series Fuse Rating	15A				
Maximum Reverse Current	20.25A				
Power Tolerance	0 ~ +5 W				

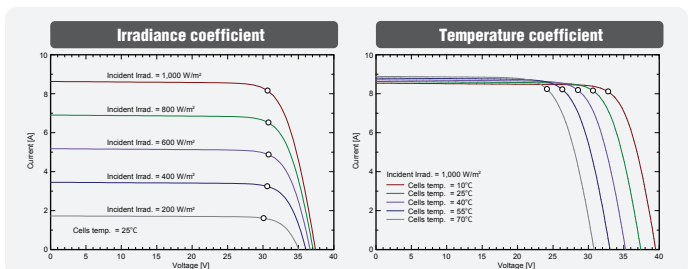


Temperature Characteristics

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

Packing Configuration

	30T	40T
Container	40' DRY	40' H/C
Modules Per Pallet	25pcs	25pcs
Pallets Per Container	26pallets	26pallets
Modules Per Container	650pcs	650pcs



Remarks :

P_{max} 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.
 Document : SN 60cell(280-300)_4BB_UL/TUV_1000_EN_2017.03

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