

SN 60-Cell^{1,000V}

Monocrystalline PV Module



SN280M-10AB SN285M-10AB SN290M-10AB

280 ~ 290 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



HAIL IMPACT TEST

30.7m/s speed ball
(IEC Standards: 23m/s)



MECHANICAL LOAD

5,400 Pa (551kg/m²)
(IEC Standards: 245kg/m²)



POSITIVE TOLERANCE

0~+5W positive power sorting



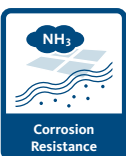
LINEAR WARRANTY

Max annual power decline 0.7%



PID RESISTANCE

Enhanced potential induced degradation



ENVIRONMENT RESISTANCE

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

Qualifications & Certifications

IEC 61215 & 61730, CE, ISO 9001
ISO 14001, OHSAS 18001, MCS, WEEE



Mechanical Characteristics

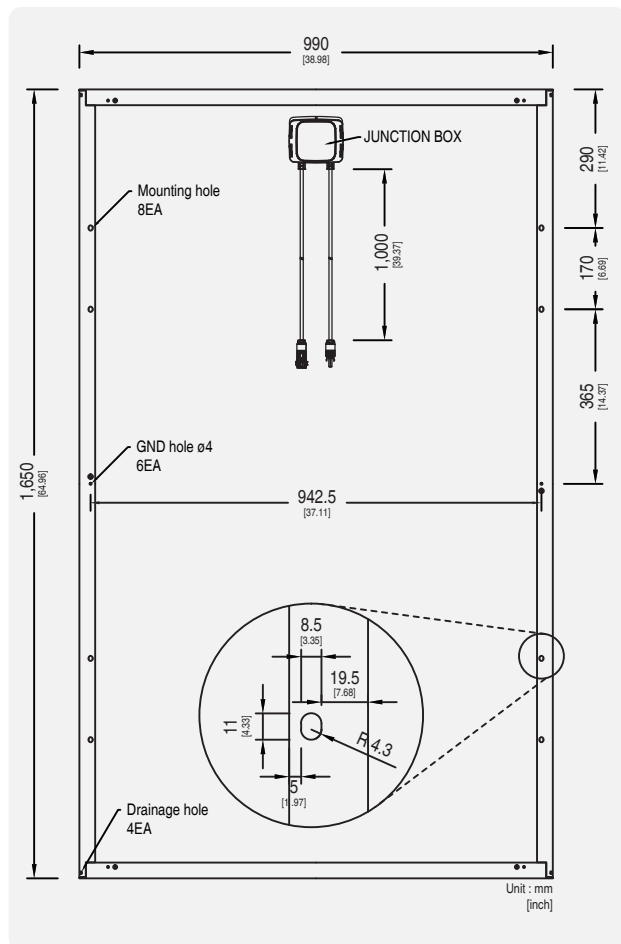
Solar Cells	Monocrystalline 156 x 156mm (6 inches)
Number of Cells	60 Cells, 6 x 10matrix
Dimensions	1,650 x 990 x 40mm
Weight	17kg (37.48 lbs)
Front Glass	High-Transmittance Low Iron Tempered Glass
Frame	Anodized Aluminum Frame (Black)
Output Cables	PV Wire (PV1-F), 12AWG (4mm ²), Cable Length : 1,000mm
Connectors	MC4 Connectable

Warranty

Product Warranty	10-year Limited Product Warranty
Performance Warranty	Minimum Power Output for Year 1 : 97%
	Maximum Power Decline from Year 2 to 24 : 0.7%
	Power Output at year 25 : 80.2%

Electrical Characteristics

STC (Irradiance 1,000W/m ² , module temperature 25°C, AM=1.5)	SN280M-10AB	SN285M-10AB	SN290M-10AB
Rated Power (P _{max})	280W	285W	290W
Voltage at P _{max} (V _{mp})	32.6V	33.1V	33.6V
Current at P _{max} (I _{mp})	8.89A	8.91A	8.93A
Warranted Minimum P _{max}	280W	285W	290W
Short-Circuit Current (I _{sc})	9.50A	9.54A	9.57A
Open-Circuit Voltage (V _{oc})	40.7V	40.9V	41.0V
Module Efficiency	17.75%	18.06%	18.37%
Operating Module Temperature	-40°C to +85°C		
Maximum System Voltage	1,000V(UL)		
Maximum Series Fuse Rating	15A		
Maximum Reverse Current	20.25A		
Power Tolerance	0 ~ +5W		

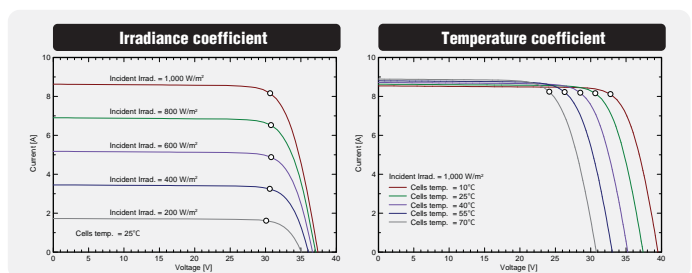


Temperature Characteristics

Temperature coefficient of I _{sc}	0.052 % / °C
Temperature coefficient of V _{oc}	-0.312 % / °C
Temperature coefficient of power	-0.429 % / °C
NOCT (T _{air} 20°C ; Irradiance 800W/m ² ; Wind 1m/s)	45±3 °C

Packing Configuration

Container	40' H/C
Modules Per Pallet	25pcs
Pallets Per Container	26pallets
Modules Per Container	650pcs



Remarks :

P_{max} measurement tolerance : 0 ~ +5W
 S-Energy uses triple AAA class simulator.
 Specification subject to change without prior notice. S-Energy reserves the rights of final interpretation.
 Document : SN 72cell(340-350)_4BB_TUV_1000_EN_2016.12

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