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Solar Panel Guide Specification Data Sheet

Noor Solar Technology NST60-6-290-310Wp-PERC-S-10. NST PERC 290

Also available on the web at
EnergyPal.com/noor-solar-technology-solar-panels/nst-perc-290

HIGH PERFORMANCE. MONO CRYSTALLINE PERC MODULE.



NST60-6-290-310Wp-PERC-S-10.

HIGHEST PERFORMANCE THROUGH STATE-OF-THE-ART CELL TECHNOLOGY



NST ADVANTAGE.

- » PERC (Passivated Emitter Rear Cell) solar cell technology Up to 20.5% efficiency
- » Positive tolerance 0/+3%
- » Excellent PID resistance
- » More flexibility in design and less BOS costs
- » 1000V DC system voltage



PERC Technology

PERC SOLAR CELL

PERC panels have a higher energy density per square foot and perform well under high temperatures.



Conversion

HIGH EFFICIENCY

High module conversion efficiency up to 20.5% through innovative manufacturing technology.



Low Light

LOW-LIGHT PERFORMANCE

Advanced glass and solar cell surface texturing allow for excellent performance in low-light environments.



2400 Pa | 5400 Pa

SEVERE WEATHER RESILIENCE

Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal).



Resistant

DURABILITY AGAINST EXTREME ENVIRONMENTAL CONDITIONS

High salt mist and ammonia resistance certified by TUV NORD.



Performance

25-YEARS LINEAR PERFORMANCE WARRANTY

12-years limited warranty for materials and workmanship. NST guarantees that each module shall deliver the following minimum output as shown in the datasheet for.

About NOOR Solar Technology (NST)

NST is a leading provider and manufacturer of smart energy solutions with high performance and top quality standards. NST products are ideal for utility-scale PV power plants, as well as residential and commercial rooftop installations. NST and its trusted technology partners provide innovative renewable energy solutions meeting the highest standards in terms of reliability, safety and durability – guaranteed by one of the world-leading re-insurance groups. With NST's premium products, investors and owners enjoy long-term returns on investment and savings on their electricity bill.



PREMIUM PRODUCTS – PREMIUM RESULTS!

HIGH PERFORMANCE. MONO CRYSTALLINE PERC MODULE.



NST60-6-290-310Wp-PERC-S-10. ENGINEERING DRAWINGS & TECHNICAL PARAMETERS

PHYSICAL PARAMETERS

Solar Cell	Mono-Crystalline PERC 156.75 x 156.75 mm
Cell Configuration	60 cell (10 x 6)
Module Dimension	1650 x 992 x 34 mm
Weight	19 kg
Superstrate	3.2 mm, High Transmission, Low Iron, Tempered ARC Glass
Substrate	White Backsheet
Frame	Silver Anodized Aluminum Alloy Type 6063T5, Silver Color
J-Box	IP67, 1000VDC, 3 Bypass Diodes
Cables	4.0 mm (12AWG), 900 mm Length (Customer Demand)
Connector	IP67 MC4 or its Compatible

ELECTRICAL PARAMETERS (STC)

TYPE	NST PERC 290	NST PERC 295	NST PERC 300	NST PERC 305	NST PERC 310
Rated Maximum Power at STC (Wp)	290	295	300	305	310
Open Circuit Voltage Voc (V)	39.5	39.7	40.1	40.2	40.5
Maximum Power Voltage Vmpp (V)	32.2	32.4	32.6	32.8	33.0
Short Circuit Current Isc (A)	9.55	9.61	9.72	9.83	9.94
Maximum Power Current Imp (A)	9.02	9.10	9.21	9.30	9.41
Module Efficiency (%)	17.7	18.0	18.3	18.6	18.9

STC: Irradiance 1000W/m², Cell Temperature 25°C, air mass 1.5

ELECTRICAL PARAMETERS (NOCT)

TYPE	NST PERC 290	NST PERC 295	NST PERC 300	NST PERC 305	NST PERC 310
Max Power Pmax (Wp)	216	220	224	228	232
Open Circuit Voltage Voc (V)	36.6	36.8	37.0	37.2	37.4
Max Power Voltage Vmpp (V)	30.2	30.4	30.6	30.8	40.0
Short Circuit Current Isc (A)	7.81	7.89	8.07	8.15	8.23
Max Power Current Imp (A)	7.15	7.24	7.32	7.40	7.48

NOCT: Under Normal Operating Cell Temperature, Irradiance of 800 W/m², Spectrum AM 1.5, Ambient Temperature 20°C, Wind Speed 1m/s

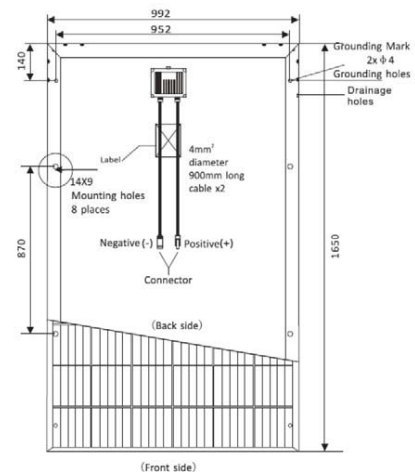
TEMPERATURE COEFFICIENT AND PARAMETERS

Nominal Operating Cell Temperature (NOCT)	45°C ± 2°C
Temperature Coefficient of Pmax	-0.39%/°C
Temperature Coefficient of Voc	-0.32%/°C
Temperature Coefficient of Isc	0.055%/°C
Operating Temperature	-45°C~+85°C
Maximum System Voltage	1000VDC
Limiting Reverse Current	15A
Maximum Series Fuse Rating	15A
Power Tolerance (W)	0/+3%
Application Class	Class A
Wind and Snow Front Load	Up to 5,400 Pa
Wind Back Load	2,400 Pa

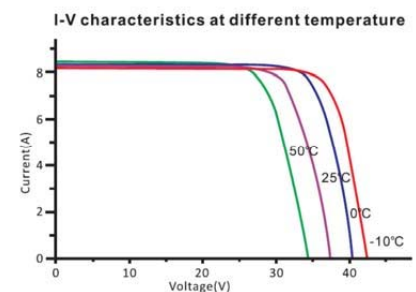
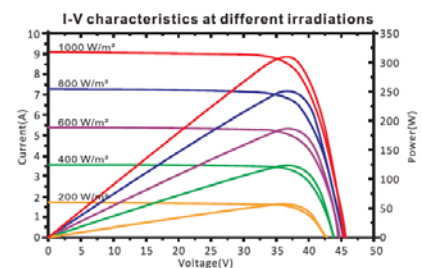
PACKAGING CONFIGURATION

	40ft	20ft
Number of Modules per Container	840	360
Number of Modules per Pallet	30	30
Number of Pallets per Container	28	12
Box Dimension (L x W x H) in mm	1680 x 1090 x 1120	1680 x 1090 x 1120
Box Gross Weight (Kg)	580	580

DIMENSION OF PV MODULE UNIT



I-V CURVE



AUTHORIZED PARTNER OF NST

