

NEOSOL BLACK PEARLS SERIES

MONO PERC -144 Cells

535 Wp | 540 Wp | 545 Wp | 550 Wp

Linear Performance Warranty

Product Warranty 12 Years: Material & Processing.

First year Degradation Upto -2.5 %

Linear Power output: 2-25 Annual degradation -0.55%

Key Features



High Module Conversion Efficiency

Module efficiency up to 21.0 % achieved through advanced cell technology and manufacturing process.



Advanced Technology

MBB- Multi Busbar (10BB) / Halfcut MONOPERC cells / Ga Doped Wafers



Positive Tolerance Cell Output

Guaranteed 0~+4.99 Wp positive tolerance to ensure power output



Excellent Weak Light Performance

Advanced glass and surface texturing allow for excellent performance in low-light environment.



Extended Wind and Snow load Tests

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



Excellent PID Resistance

Excellent Anti-PID performance guarantee limited power degradation and certified for up-to 288 Hrs.



Withstanding Harsh Environment

Reliable quality leads to a better sustainability even in harsh environment like desert, farm and coastline, ammonia.



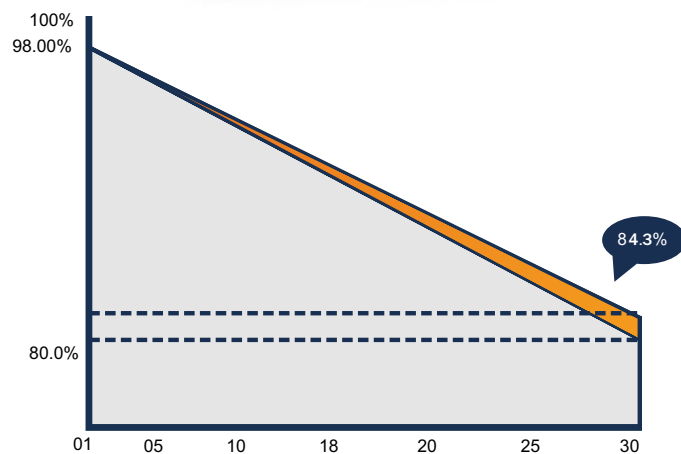
Rigorous Testing Criteria

100% EL inspection ensuring defect-free modules.



Current Sorting

To minimize the current mismatch losses to maximize system power output.





Solar Module Specification

Electrical Data Performance

Conditions	Unit	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Peak Power Pmax(0 ~+ 4.99)Wp	(Wp)	535	401.3	540	405.0	545	408.8	550	412
Maximum voltage, Vmpp	(V)	41.65	38.68	41.8	38.79	42.08	38.8	42.05	38.9
Maximum current, Impp	(A)	12.86	10.39	12.94	10.46	13.01	10.46	13.06	10.61
Open circuit voltage, Voc	(V)	49.98	46.41	50.16	46.54	50.49	46.56	50.62	46.70
Short circuit current, Isc	(A)	13.50	10.91	13.59	10.98	13.67	11.08	13.86	11.13
Module Efficiency(%)	(%)	≥20.70		≥20.90		≥21.10		≥21.33	
Operating Temperature(℃)						-40℃~+85℃			
Maximum system voltage						1500 VDC			
Maximum series fuse rating						25A			
Power tolerance						0~+3%			
Temperature coefficients of Pmax						-0.35%/℃			
Temperature coefficients of Voc						-0.28%/℃			
Temperature coefficients of Isc						0.048%/℃			
Nominal operating cell temperature (NOCT)						45 ± 2 ℃			
Fire Safety						Class-C			
Application						Class-A			
Safety Class						Class II			

STC: Irradiance 1000 W/m² module temperature 25° °C, A_m=1.5; NOCT: Irradiance 800 W/m², ambient teperature 20°C, A_m=1.5, Wind speed 1m/s. Average power reduction of 4.5% at 200 W/m² as per IEC 60904-1. Measuring Uncertainty +/- 3%

MODULE MECHANICAL DATA

SPECIFICATION DATA

Cell Type	Half Cut- PERC Monocrystalline, 144 Cells
Dimensions	2278X1134X35mm
Weight	29 Kgs
Front Cover	3.2 mm ARC Tempered Glass
Backsheet	Composite Film
Frame Material	Silver Anodized Aluminium Profile, (black frame on request)
Junction Box	Ip68 Slipt JB, 3 diodes
Cable	350mm, 4mm ²
Connectors	MC4 Compatible Connector IEC/UL Certified

I-V Characteristics At Different Irradiations

