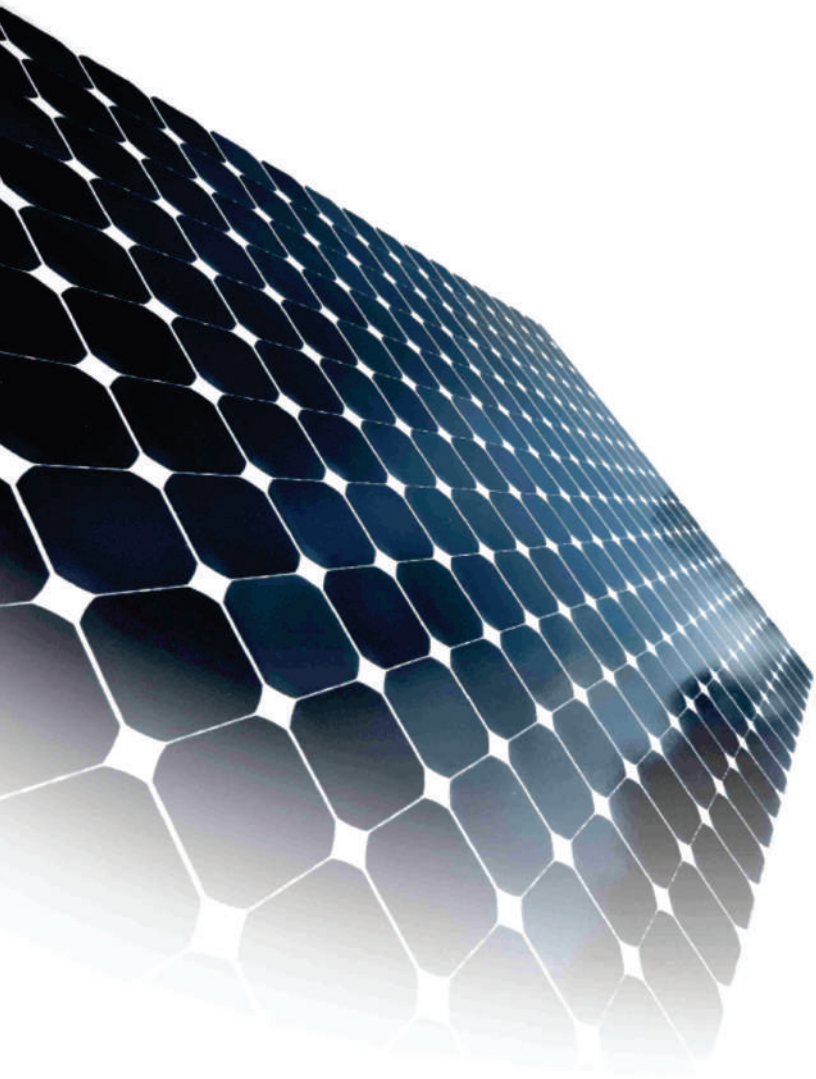
SAATVIK

MONO PERC -144 Cells

520 Wp | 525 Wp | 530 Wp | 535Wp | 540 Wp | 545 Wp



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.

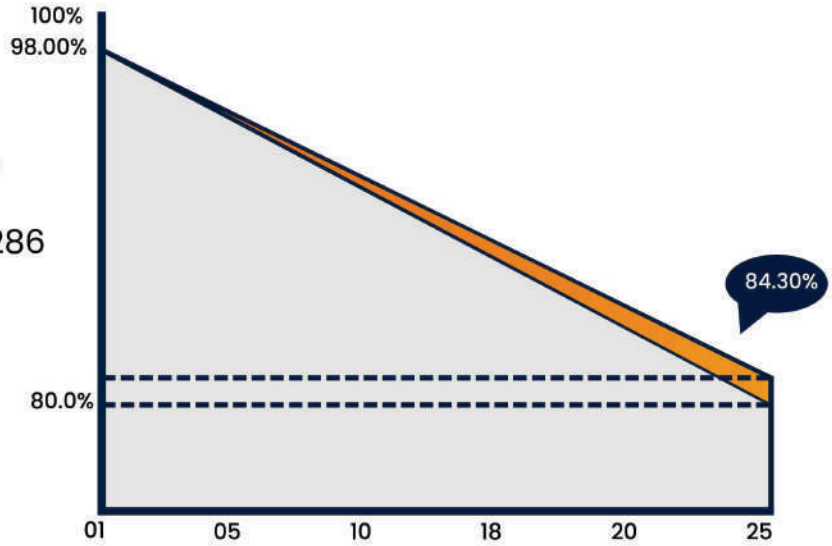
Withstanding Harsh Environment
Reliable quality leads to a better sustainability even in harsh environment like desert, farm and coastline, ammonia.

Rigorous Testing Criteria
100% EL inspection ensuring defect-free modules.

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

Linear Performance Warranty

Product Warranty 12 Years: Material & Processing.
First year Degradation Upto -2.5 %
Linear Power output 25 : 2-25 Annual degradation -0.55%



Certifications and standards

IEC 61215, IEC 61730, IEC 61701, UL 61730 CEC, CEC-Aus, IEC 62716, IEC 62759, IEC 62804, IEC 62782, IEC 60068-2-68, IEC 61853 ,IS 14286

TÜVRheinland CERTIFIED · IEC · ISO · MAKE IN INDIA · Munich RE · CE · PV CYCLE

*Certification are under progress

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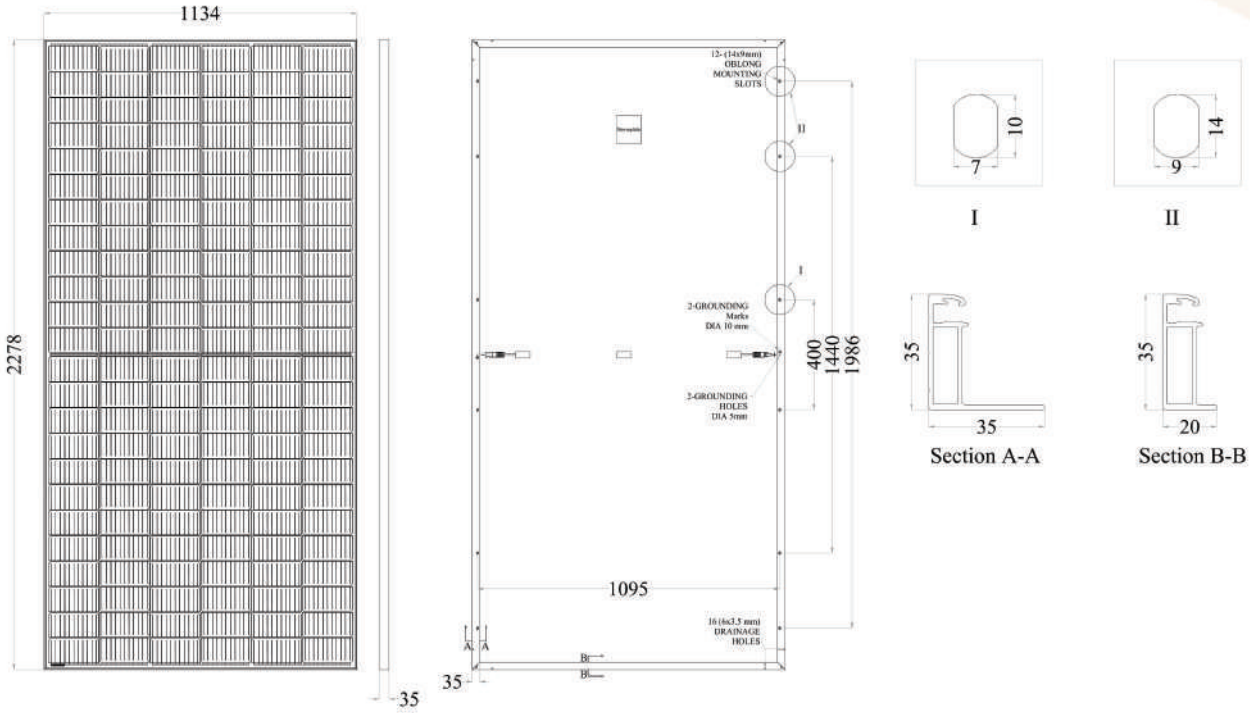

Electrical Data Performance

Conditions	Unit	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Peak Power Pmax(0 ~+ 4.99)Wp	(Wp)	520	393.2	525	393.2	530	397.5	535	401.3	540	405.0	545	408.8
Maximum voltage, Vmpp	(V)	41.14	38.29	41.34	38.29	41.5	38.48	41.65	38.68	41.8	38.79	42.08	38.8
Maximum current, Impp	(A)	12.66	10.27	12.71	10.27	12.78	10.33	12.86	10.39	12.94	10.46	13.01	10.46
Open circuit voltage, Voc	(V)	49.38	45.64	49.60	45.94	49.80	46.17	49.98	46.41	50.16	46.54	50.49	46.56
Short circuit current, Isc	(A)	13.29	10.78	13.35	10.78	13.42	10.85	13.50	10.91	13.59	10.98	13.63	11.03
Module Efficiency(%)	(%)	**20.13**		**20.32**		**20.52**		**20.70**		**20.90**		**21.10**	

Operating Temperature(℃)	-40℃~+85℃
Maximum system voltage	1500 VDC
Maximum series fuse rating	25A
Power tolerance	0~+3%
Temperature coefficients of Pmax	-0.36%/°C
Temperature coefficients of Voc	-0.28%/°C
Temperature coefficients of Isc	0.048%/°C
Nominal operating cell temperature (NOCT)	45 ± 2 °C
Fire Safety	Class-C
Application	Class-A
Safety Class	Class II

STC: Irradiance 1000 W/m2 module temperature 25 °C, Am=1.5; NOCT: Irradiance 800 W/m2, ambient teperature 20°C, Am=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	28 kgs
Front Cover	3.2 mm Tempered Glass
Backsheet	Composite Film
Frame Material	Silver Anodized Aluminium Profile, (black frame on request)
J-Box	IP 68, 3 diodes Split JB
Cable	350mm, 4mm2
Connectors	MC4 Compatible Connector IEC/UL Certified
Standard Packaging	30 Pieces/Pallet
Module Pieces per Container	600 pieces (40* HQ)

I-V Characteristics At Different Irradiations

PV module: Saatvik Green energy, SGE 540Wp-HC-144