

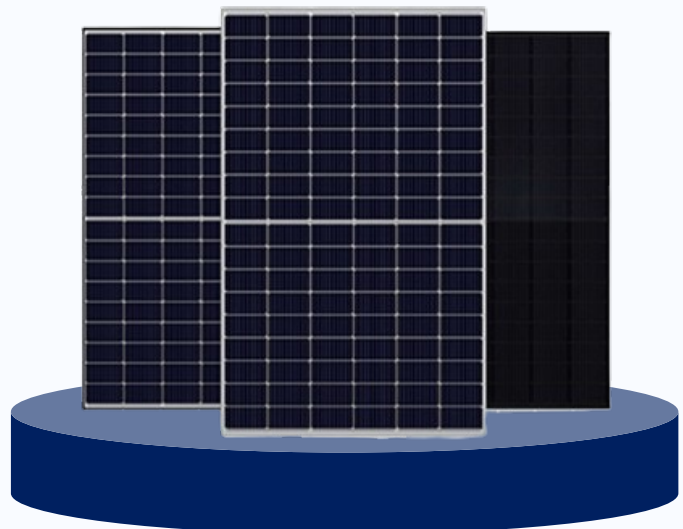
# Manufacturer of Solar PV Modules & other Solar Products and Comprehensive EPC Solution Provider



## Himalayan Solar

Power Solution for a **Shining Future**

**Manufacturing of Mono Perc and  
Bifacial N Topcon Modules  
(Range 560Watt to 600Watt)**



**We also  
manufacture :**

Lithium  
Ion  
Battery

Solar  
Pump  
Controller

Solar  
Water  
Pumps

Solar  
Power  
Plants

Solar  
Power  
Packs

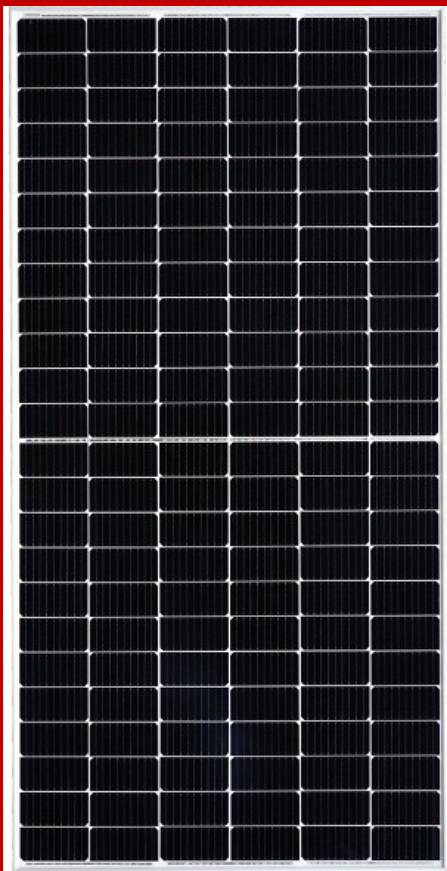
Solar  
Charger  
Controller

Solar  
Home  
System

Solar  
Street  
Lights

# Topcon Bifacial 144 cells

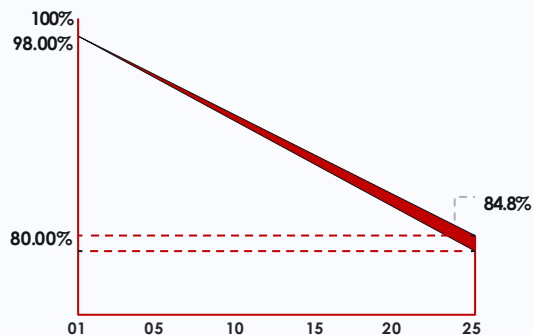
## > Key Features <

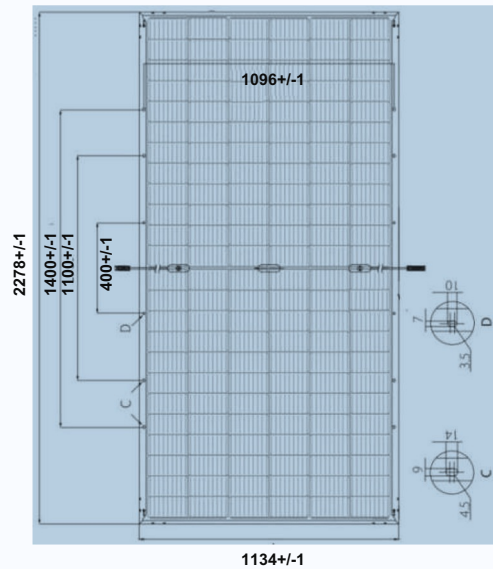
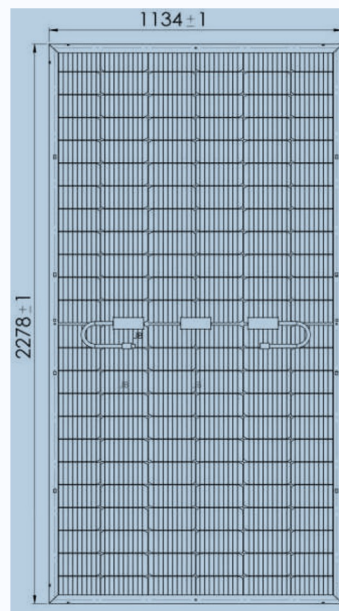
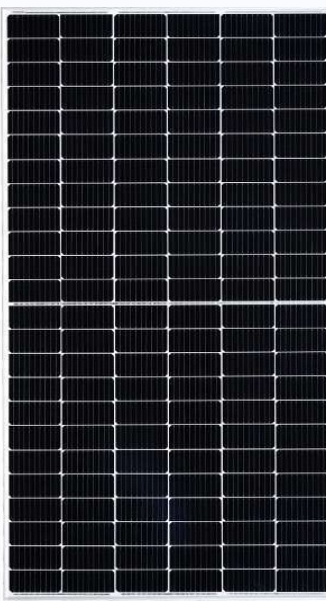


- ▶ **N-Type with Very Low LID**  
Resulting in higher power generation
- ▶ **Positive Tolerance**  
Power output with a positive tolerance.
- ▶ **Excellent performance in low light**  
Superior output in low irradiance Increased power production even in low-light environments.
- ▶ **Better Temperature coefficient (-0.30%/°C)**  
Higher power generation under higher ambient temperature conditions
- ▶ **Extended Wind and Snow load Tests**  
Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal).
- ▶ **Higher <Module Efficiency**  
Module Efficiency Up-to 22.84%
- ▶ **10-30% more power generation**  
When compared with the P-type module
- ▶ **Advanced technology**  
MBB-Multi Bus- bar (16BB)  
Half-cut N-TOPCon cell
- ▶ **Extended Wind and snow loads**  
Wind Load (2400 Pascal) and  
Snow Load (5400 Pascal)
- ▶ **Withstanding a harsh environment**  
Reliable quality leads to better sustainability, even in harsh environment such as deserts, Farms, coastal and the areas with ammonia exposure
- ▶ **Rigorous testing criteria**  
100% I-V measurement, HiPOT test and EL inspection, ensure defect-free modules
- ▶ **Bifaciality factor 80 ±5%**  
The ratio of the rear efficiency in relation to the front efficiency is subject to the same irradiance.

**Product Warranty\*\*** 12 years of product warranty

**Performance Warranty\*\*** Power degradation <2.0% in first year and <0.55% / year in 2 to 25 years





## Electrical Data Performance

Module Type		560Wp	570Wp	580Wp	590Wp	600Wp
Conditions	Unit	STC	STC	STC	STC	STC
Peak Power, Pmax (Wp)	W	560	570	580	590	600
Voltage at Maximum power, Vmp	V	42.34	42.47	43.52	44.05	44.68
Current at maximum power, Imp	A	12.98	12.85	13.33	13.38	13.43
Open circuit voltage, Voc	V	50.14	52.39	51.19	51.24	51.29
Short circuit current, Isc	A	13.55	14.03	14.06	14.26	14.46
Module Efficiency (%)		21.98%	22.08%	22.45%	22.84%	23.22%
Operating Temperature (°C)		-40°C~+85°C	Temperature coefficient of Isc (a)		-0.046%/°C	
Maximum system voltage		1500VDC	Nominal Operating cell temperature (NOCT)		45±2°C	
Maximum series fuse rating		30A	Fire Safety		Class-C	
Power tolerance (Wp)		0~+3%	Application		Class-A	
Temperature coefficient of Pmax (γ)		-0.30%/°C	Safety Class		Class-II	
Temperature coefficient of Voc (β)		-0.26%/°C	Temperature coefficient of Isc (a)		-0.046%/°C	

STC: Irradiance 1000W/m<sup>2</sup>, module temperature 25°C, AM =1.5; NOCT: Irradiance 800W/m<sup>2</sup>, ambient temperature 20°C, AM=1.5, wind Speed 1m/s. Average power reduction of 4.5% at 200W/m<sup>2</sup> as per IEC 60904- 1.Except Pmax, all other parameters have tolerance of +/5%, measurement uncertainty +/3%

## BI-FACIAL OUTPUT - BACKSIDE POWER GAIN\*

Bifacial Gain	Measurement	Unit	560Wp	570Wp	580Wp	590Wp	600Wp
5%	Peak Power (Pmax)	W	585	599	605	615	625
	Module Efficiency	%	22.64%	23.21%	23.42%	23.80%	24.19%
10%	Peak Power (Pmax)	W	610	627	630	640	650
	Module Efficiency	%	23.61%	24.29%	24.39%	24.77%	25.16%
15%	Peak Power (Pmax)	W	635	-	655	665	675
	Module Efficiency	%	24.58%	-	25.35%	25.74%	26.13%

\*Power gain from the rear side depends on the ground reflectance (Albedo) & Bifaciality factor.

## Module Mechanical Data

### SPECIFICATION DATA

Cell Technology	N- Type TOPCon, 182x91mm-MBB 144Cells
Dimensions (LxWxH)	2278X1134X35 mm
Weight	28.00 kgs ± 1.5 kg
Superstrate	3.2mm High Transmission, Low Iron, Tempered Glass, AR coated
Rear Cover Substrate	2.00 mm Toughened Low Iron Glass/Transparent Backsheet
Frame	Silver Anodized Aluminium frame with twin profile
Junction Box	IP68, Split Junction box with individual Bypass Diodes
Cable & Connectors	300mmx2nos solar cable, 4mm <sup>2</sup> , MC4 Compatible Connectors IEC/UL certified
Application Class	Class A (Safety Class II)
Mechanical Load Test	5400 Pa (Snow load), 2400 Pa (Wind load)
Standard Packaging	28 pieces/ Pallet

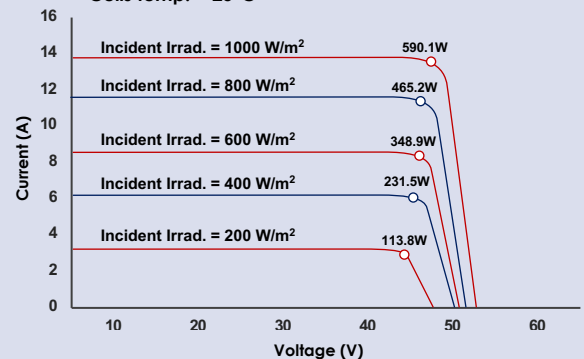
### Per Container.

- > The specifications included in this datasheet are subject to change without notice.
- > The electrical data given here is for reference purpose only.
- > Please confirm your exact requirements with the sales representative while placing your order.
- > Refer installation Manual Instructions & Himalayan Solar warranty statement for terms & conditions

## I-V Characteristics At Different Irradiations

### PV module : HimSol- 144 Cell"

Cells temp. = 25°C

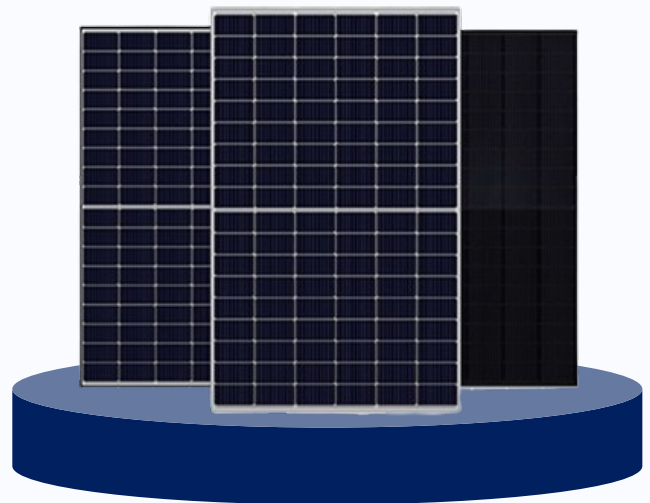


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## Our Commitments

- ◉ Quality Products & Solutions
- ◉ Timely Delivery
- ◉ Cost Effectiveness
- ◉ Total Customer Satisfaction



# Himalayan Solar

Power Solution for a **Shining Future**

### Manufacturing Units:

- Plot No. 237,  
HSI IDC Industrial Estate,  
Alipur, Barwala, Panchkula  
134118, Haryana, India  
- Plot No. 3 & 4, Khasra No. 249,  
Khewat No. 980 & 977, Near  
Aryakulam International School,  
Assandh – Kohand Road, Munak,  
Karnal, Haryana - 132040

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