

### BIFACIAL-N TOPCON 144 CELLS (DUAL GLASS)

560W-590W

NOVA - 144 TGG ( XXX: 560-590Wp)



**N - Type with very low LID**  
Resulting in higher power generation



**Positive Tolerance**  
Power output is guaranteed with a positive tolerance of 0~+4.99Wp



**Better temperature coefficient (-0.30%/°c)**  
higher power generation under higher ambient temperature conditions



**Higher Module Efficiency** Module Eff. Up-to 22.8%



**Advanced Technology MBB - MULTI BUS -BAR(16BB)**  
HALF-CUT N-TOPCON CELL



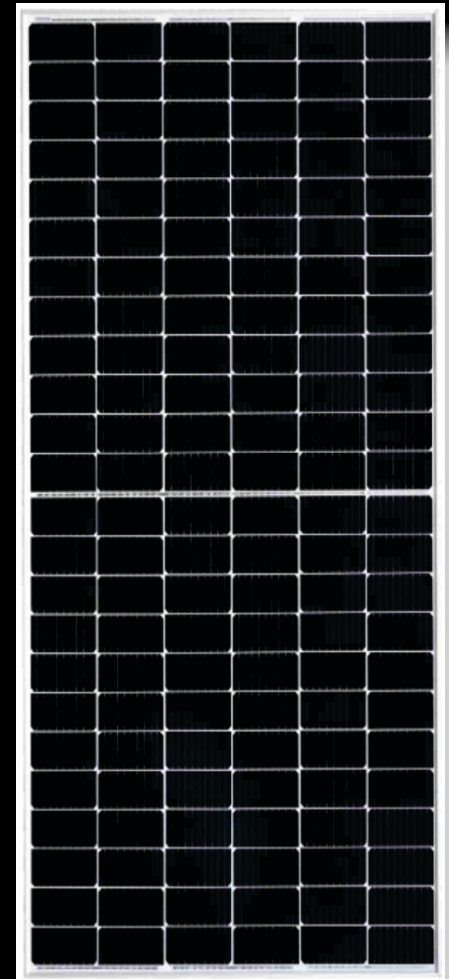
**EXTENDED WIND AND SNOW LOADS**  
Wind Load (2400Pascal)  
Snow Load (5400Pascal)



**Withstanding a harsh environment**  
Reliable quality leads to better sustainability, even in harsh environments such as deserts, Farms, coastal and the areas with ammonia exposure



**Rigorous Testing Criteria**  
100% EL inspection, ensures defect-free modules



30 Years  
Performance  
Warranty<sup>1</sup>

Power  
Tolerance  
up to  
4.99W

PID  
Resistant

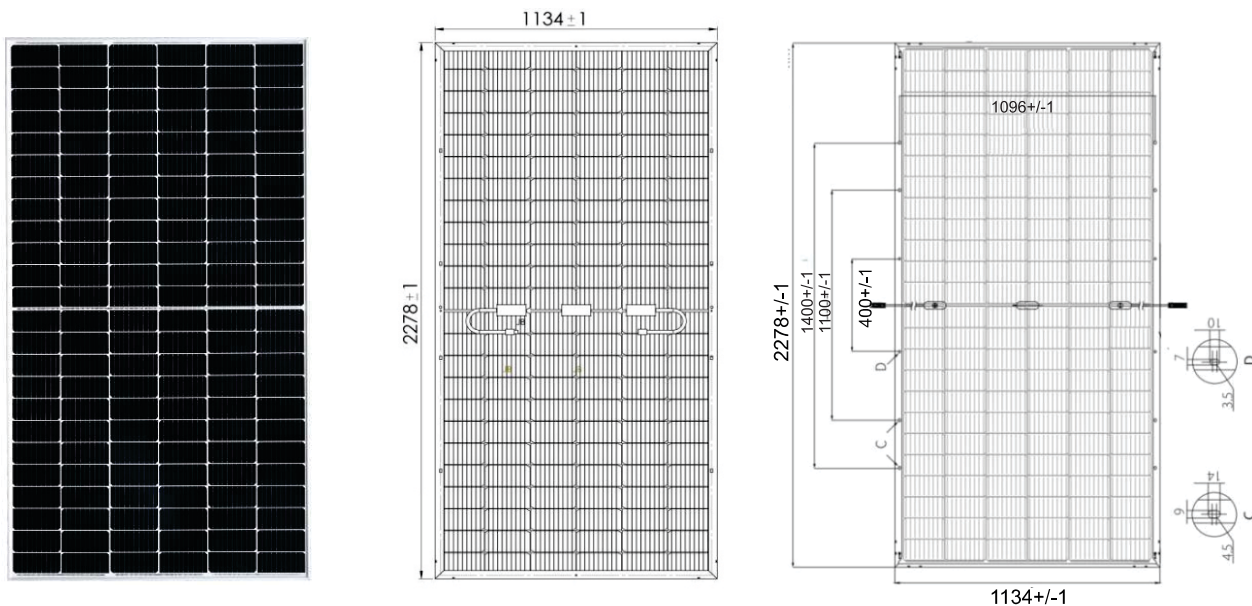
12 Years  
Product  
Warranty<sup>1</sup>



ALMM Approved.

\*All certifications under test





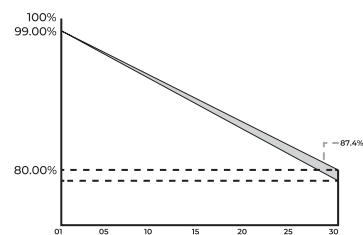
## ELECTRICAL DATA PERFORMANCE

Conditions		STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Peak Power, Pmax (Wp)	W	560	421	565	425	570	429	575	432	580	436	585	440	590	444
Voltage at Maximum power, Vmp	V	42.41	40.20	42.53	40.32	42.65	39.69	42.82	39.89	42.94	39.98	43.06	40.82	43.18	40.93
Current at maximum power, Imp	A	13.22	10.47	13.3	10.54	13.37	10.80	13.43	10.84	13.51	10.91	13.59	10.78	13.67	10.84
Open circuit voltage, Voc	V	50.68	48.04	50.86	48.22	51.04	48.39	51.22	48.56	51.41	48.74	51.59	48.91	51.77	49.08
Short circuit current, Isc	A	13.88	11.21	13.96	11.27	14.04	11.34	14.10	11.38	14.19	11.46	14.26	11.51	14.33	11.57
Fill Factor	%	80%	78%	80%	78%	80%	78%	80%	78%	80%	78%	80%	78%	80%	78%
Module Efficiency (%)		21.68%		21.87%		22.07%		22.26%		22.45%		22.65%		22.84%	
Operating Temperature (°C)		-40°C~+85°C				Temperature coefficients of Isc						+0.046%/°C			
Maximum system voltage		1500 VDC				Nominal operating cell temperature (NOCT)						45±2°C			
Maximum series fuse rating		30A				Fire Safety						Class-C			
Power tolerance (Wp)		0~+3%				Protection Class II						Class-A			
Temperature coefficients of Pmax		-0.30%/°C				Safety Class						Class-II			
Temperature coefficients of Voc		-0.26%/°C													

200W/m<sup>2</sup> as per IEC 60904-1.

\*\*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

**Linear Performance warranty**  
**Product Warranty 12 Years**  
**Material & Processing First Year**  
**Degradation up to 90% for 10Years**  
**80% up to balance 20 Years**

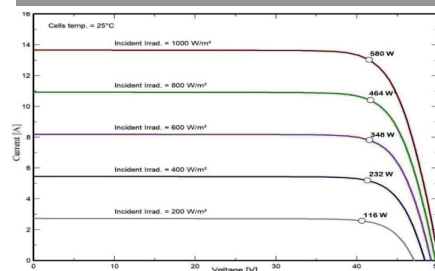


### MODULE MECHANICAL DATA

#### SPECIFICATION DATA

Cell Type	N-TOPCon, 144 Cells
Dimensions	2278x1134x30 mm
Weight	32 Kgs
Front Cover	2.00 mm
Rear Cover	2.00 mm
Frame Material	"Silver Anodized Aluminum Profile,
J-Box	IP68, 3 diodes
Cable	350 mm, 4 mm <sup>2</sup>
Connectors	Mc4 Compatible Connector
Standard Packaging	36 Pieces/Pallet
Module Pieces per Container	720 pieces (40'HQ)

#### I-V Characteristics At Different Irradiations



[www.orient solar.com](http://www.orient solar.com)

