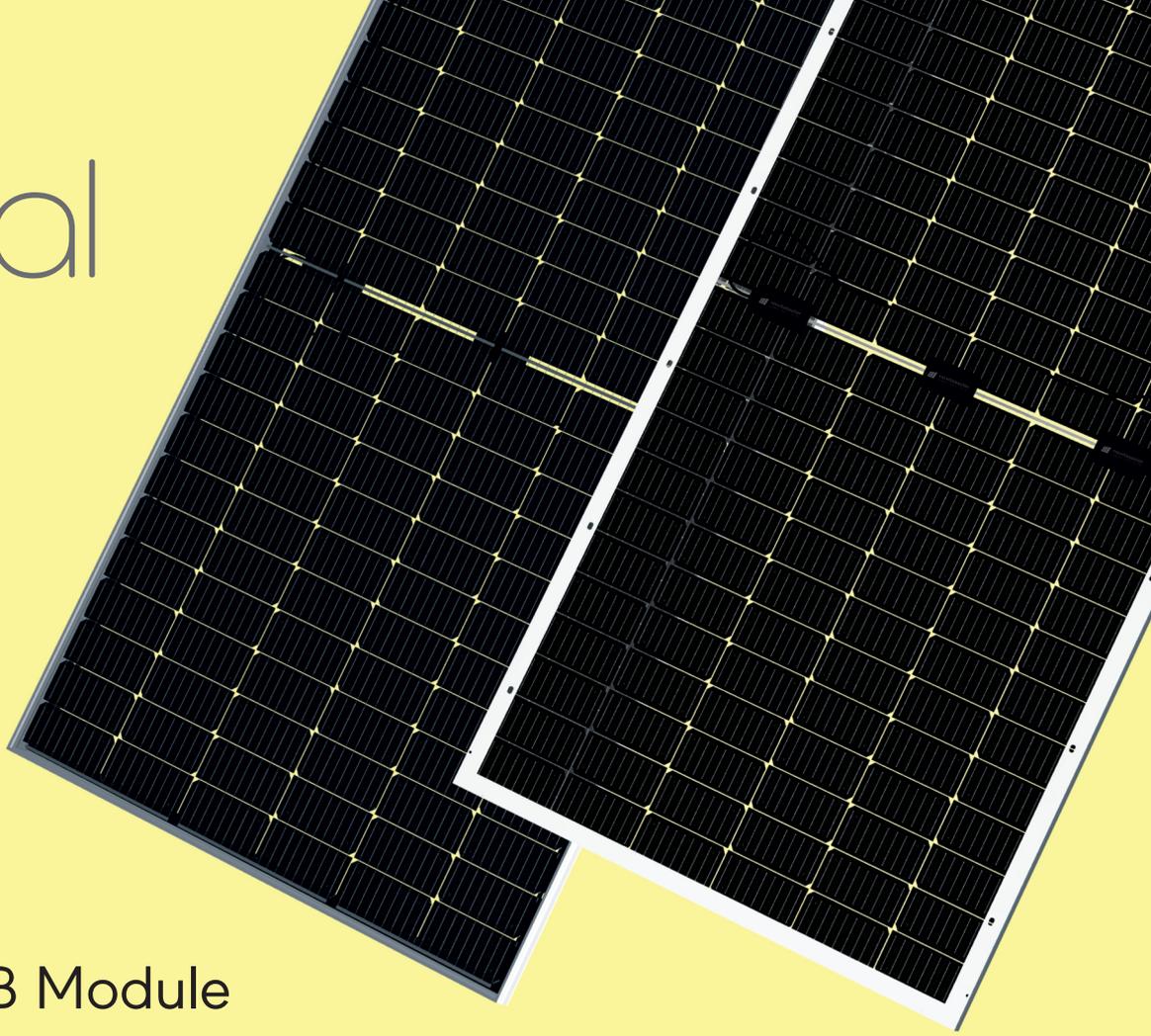


# navitas bifacial



144 Cell | 10 BB Module

**Mono PERC Half Cut  
BIFACIAL Module**

NSM 525W to 560W



Ideal for large scale installations



More power with Bifacial



Better shading tolerance



Lower LCOE & system cost



Excellent temperature performance



Non-destructive cutting

Navitas Bifacial modules produce power from the front & backside. Navitas Bifacial modules can produce up to 30% more power from backside than mono facial modules.

Module  
Efficiency  
up to  
21.67%

Power  
Tolerance  
up to  
4.99W

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

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

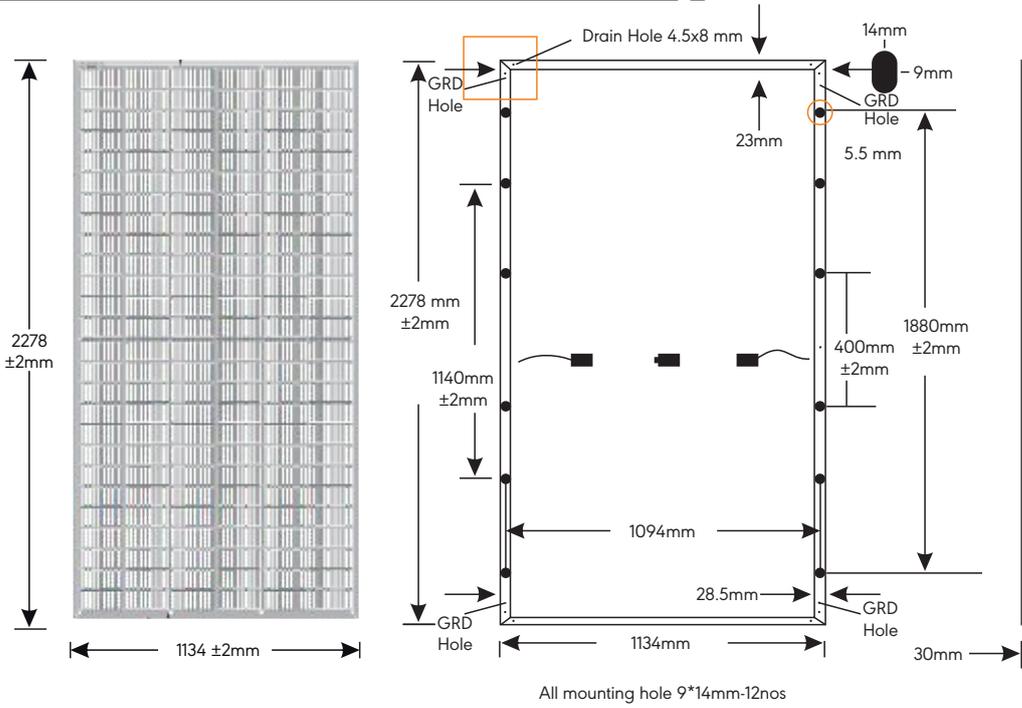
PID  
Resistant

**Product Certifications**

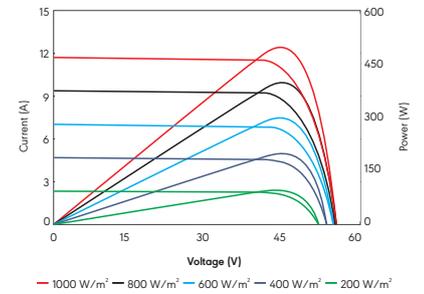
UL 61703, ISO 9001, 14001, 45001



# Mechanical Dimensions



I-V Curves of PV Module (for Ref)



Degradation in the first year- 2%,  
Degradation from second year onwards- 0.55%

## Electrical Data

Module Type	NSM525-144		NSM530-144		NSM535-144		NSM540-144		NSM545-144		NSM550-144		NSM555-144		NSM560-144	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Peak Power Watts (Pmax)	525	390.46	530	393.99	535	397.67	540	401.28	545	405.17	550	408.8	555	412.53	560	416.29
Maximum Power Voltage (Vmp)	41.54	39	41.76	39.2	41.99	39.42	42.21	39.63	42.46	39.86	42.68	40.07	42.91	40.28	43.14	40.5
Maximum Power Current (Imp)	12.64	10.01	12.69	10.05	12.74	10.09	12.79	10.13	12.84	10.16	12.88	10.2	12.93	10.24	12.98	10.28
Open-circuit voltage (Voc)	49.8	45.77	49.94	45.92	50	46.06	50.16	46.2	50.3	46.35	50.49	46.51	50.62	46.66	50.75	46.81
Short-circuit current (Isc) (A)	13.45	10.74	13.5	10.77	13.56	10.81	13.6	10.84	13.65	10.88	13.69	10.91	13.74	10.94	13.78	10.98
Module Efficiency STC (%)	20.32		20.51		20.71		20.09		21.09		21.29		21.48		21.67	
Operating Temperature (°C)	-40°C ~ +85°C															
Maximum System Voltage	1500 V DC (IEC)															
Maximum series fuse rating	25A															

## Bifacial Output - Backside Power Gain

Module Type	NSM525-144	NSM530-144	NSM535-144	NSM540-144	NSM545-144	NSM550-144	NSM555-144	NSM560-144
10 % Gain	577.5	583.0	588.5	594.0	599.5	605.0	610.5	616.0
15 % Gain	603.8	609.5	615.3	621.0	626.8	632.5	638.3	644.0
20 % Gain	630.0	636.0	642.0	648.0	654.0	660.0	666.0	672.0
25 % Gain	656.3	662.5	668.8	675.0	681.3	687.5	693.8	700.0
30 % Gain	682.5	689.0	695.5	702.0	708.5	715.0	721.5	728.0

Note: Measurement uncertainty ± 3%

- ▶ STC Irradiance 1000 W/m<sup>2</sup> Cell Temperature 25°C AM = 1.5
- ▶ NOCT Irradiance 800 W/m<sup>2</sup> Ambient Temperature 20°C AM = 1.5 Wind Speed = 1 m/s

Note: Bifacial gain will depend on structure height, system design and albedo.

## Mechanical Data

Specification	Data
Cell type	Half cut MONO PERC
Cell arrangement	72 Mono PERC - 144 Half cells
Dimensions	2278 x 1134 x 30 mm
Mounting Hole	Y- 400/1140/1880 mm X - 1094 mm
Weight	29 Kg
Front Cover	3.2 mm ARC Glass
Frame Material	Anodized Aluminium Alloy
Junction Box	IP68 Split JB
cable	4 mm <sup>2</sup> (IEC) - Length 0.35 mtr (Potrait)/1.4mtr (Landscape)
Connectors	MC4 Compatible
By-Pass Diodes	3 Pcs
Configuration	Glass to Glass

## Temperature Characteristic

Specification	Data
Temperature Co-efficient (Pmax)	-0.34% /°C
Temperature Co-efficient (Voc)	-0.26% /°C
Temperature Co-efficient (Isc)	+0.040% /°C
Nominal Operating Cell Temperature	42 ± 2°C

\*The above data is liable to change without prior notice  
 \*Warranty applicable as per standard warranty terms as available on [www.navitassolar.com](http://www.navitassolar.com)

## How a BIFACIAL SOLAR PANEL Works

