

SUN132P (610Wp-650Wp)

N-TOPCon

Bifacial Glass To Glass Module

2384x1134x30

Dimensions (mm)

132CELL 610Wp-650Wp

Mono TOPCon

Power output

1500 VDC

Max. system voltage

23.80%

Max. efficiency



KEY FEATURES



Higher Power Output

Module power increases by 5-25% generally, bringing significantly lower LCOE and higher IRR. 0-5w positive tolerance output warranty.



Optimal Choice for Ultra-large Power Plants

Contribute to Lower BOS cost and LCOE.



ZERO LID

N-Type cell is characterized by "0" LID, which generates more power.



PID Resistance

Excellent Anti-PID performance guarantee via optimized mass-production process and material control.



Durability Against Extreme Environmental Conditions

High salt mist and ammonia resistance certified by TUV NORD. Lower temperature coefficient and operating temperature.



More Outstanding Low-light Performance

Higher power output even under low-light environments like on cloudy days



Enhanced Mechanical Load

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



EL Full Inspection

Dual-stage 100% EL Inspection.

Comprehensive Products and System Certificates

IEC61215/IEC61730/IEC61701/IS14286/IEC61853-1/IEC62804-1

ISO 9001: Quality Management System

ISO 14001: Environmental Management System

ISO 27001: Information Security Management System

GMP-Good Manufacturing Practices

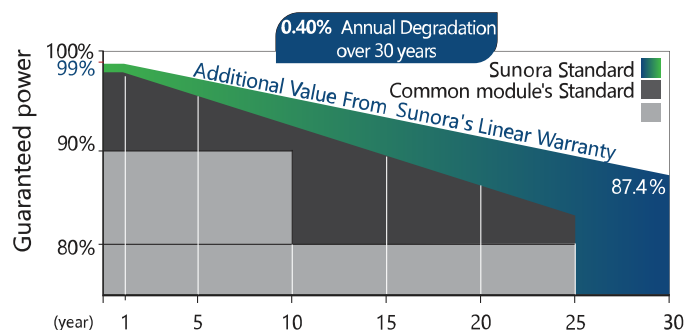
ISO 14064: Greenhouse Gases Emissions Verification

OHSAS 18001: Occupational Health and Safety Management System

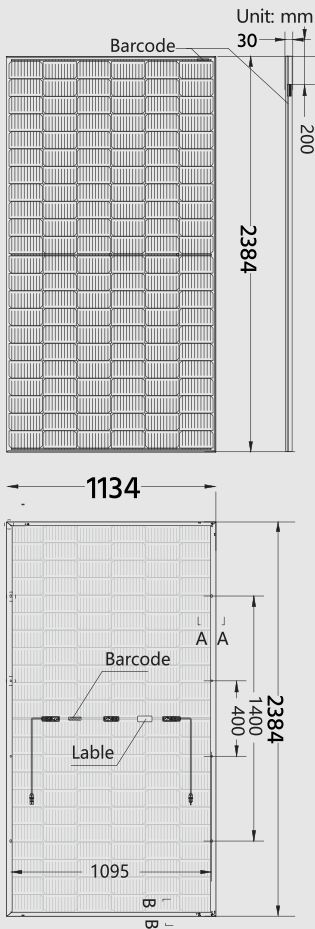
*Under Process

LINEAR PERFORMANCE WARRANTY

12-year product warranty / 30-year linear power warrant



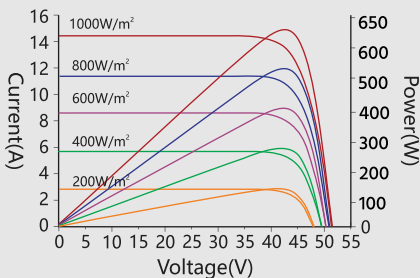
Dimensions of PV Module



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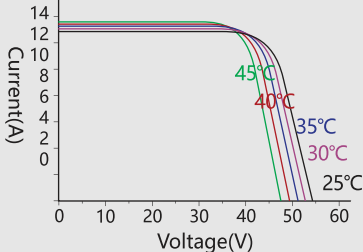
I-V characteristics at different irradiances

Cells temp. = 25°C



I-V characteristics at different temperatures

(AM1.5, 1000W/m²)



ELECTRICAL CHARACTERISTICS (STC*)

Rated Power in Watts-Pmax(Wp)	SUN132P610	SUN132P615	SUN132P620	SUN132P625	SUN132P630	SUN132P635	SUN132P640	SUN132P645	SUN132P650
Open Circuit Voltage-Voc(V)	49.00	49.30	49.60	49.90	50.20	50.50	50.80	49.56	49.66
Short Circuit Current-Isc(A)	15.86	15.90	15.94	15.98	16.02	16.06	16.10	16.305	16.39
Max. Power Voltage-Vmpp(V)	40.80	41.00	41.20	41.40	41.60	41.80	42.00	41.90	41.98
Max. Power Current-Impp(A)	14.96	15.00	15.05	15.15	15.20	15.25	15.30	15.4	15.49
Module Efficiency(%)	22.60	22.80	23.00	23.20	23.40	23.60	23.80	23.86	24.04
Maximum system voltage	1500 vdc								
Fuse Rating(A)	35A								
Temperature coefficient Pmax	-0.29%/°C								
Temperature coefficient Isc	+0.043%/°C								
Temperature coefficient Voc	-0.24%/°C								
Refer. Bifacial Factor	80%+5%								

*STC: Irradiance 1000W/m², module temperature 25°C, AM=1.5

WORKING CHARACTERISTICS (NOCT*)

Rated Power in Watts-Pmax(Wp)	466	470	473	476	479	482	485	491	495
Open Circuit Voltage-Voc(V)	46.50	46.80	47.10	47.40	47.70	48.00	48.30	47.10	47.18
Short Circuit Current-Isc(A)	12.78	12.81	12.84	12.87	12.90	12.93	12.96	13.12	13.12
Max. Power Voltage-Vmpp(V)	38.30	38.50	38.70	38.90	39.10	39.30	39.50	39.81	39.88
Max. Power Current-Impp(A)	12.16	12.21	12.23	12.24	12.26	12.28	12.30	12.33	12.40
Power tolerance	0~+3%								
NOCT	43°C+2°C								
Operating Temperature	-40°C~-85°C								

*NOCT: Irradiance 800W/m², ambient temperature 20°C, wind speed 1m/s

Electrical characteristics with different rear side power gain

Pmax gain	10%	15%	20%	25%	30%	35%	40%
Pmax /W	677	707	732	763	793	823	853
Vmpp /V	41.00	41.00	41.00	41.00	41.00	41.00	41.00
Impp /A	16.50	17.25	18.00	18.75	19.50	20.25	21.00
Voc /V	49.30	49.30	49.30	49.30	49.30	49.30	49.30
Isc /a	17.49	18.29	19.08	19.88	20.68	21.48	22.28

The additional gain from the rear side compared to the power of the front side at the standard test condition. It depends on mounting (structure, height, tilt angle etc.) and albedo of the ground.

MECHANICAL CHARACTERISTICS

Number of cells	132pcs	Type of frame	Anodized Aluminum Alloy
Size of cell(mm)	182×91	Size of module(mm)	2384x1134x30
Type of cell	N-TOPCon Mono	Weight(kg)	33.07
Thickness of glass(mm)	2.2/2.0	Cables/connectors	4.0mm², MC4 compatible
Junction box	IP68	Length of Cabel	+300mm/-300mm(connector included)

PACKAGING CONFIGURATION

Height of Modules (mm)	35	30
Number of Modules Per Pallet	31	36
Packaging Box Dimensions (l×w×h) (mm)	2300×1120×1260	2300×1120×1260
Box Gross Weight (kg)	1084	1210
Number of Modules Per 40ft (HQ) Container	620	720
Number of Pallets Per 40ft (HQ) Container	20	20

PRODUCT BY



MAKE IN INDIA

Office:

Office No. 365,366, Laxmi Enclave-2, Opp. Gajera School, Katargam, Surat, Gujarat - 395004

Factory:

BL No. 2281/2/1/1, Sub Plot. 1-A, Near Areth Minnor Canal, Village - Tadkeshwar, Ta - Mandvi, Surat, Gujarat, 394170