Product Characteristics

N-Type Technology

The N-Type module has lower LID/LeTID attenuationand better low light performance.

multi-master grid technology

Better light utilization and current harvesting capability Effectively improves product power output and reliability.

load capacity

Integral assembly passes frontal maximum test static at 6000 Pa.load certification.

Anti PID Guarantee

Through the optimization of battery production technology and material control to minimize the chance of degradation caused by PID phenomenon.

double-sided generation

Increased light exposure on the back side of double-sided power generation significantly reduces LCOE

HOT 3.0 Technology

HOT3.0 technology N-type modules offer better reliability and power generation efficiency.

12 Year

Material Workmanship Warranties

30 Year

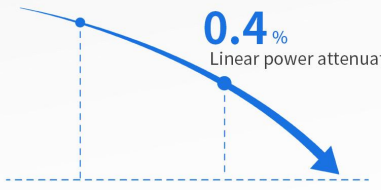
The nature of the year line protects

1 %

First year power degradation

0.4 %

Linear power attenuation



certification

EC61215、IEC61730、CE、CQC

·1S08001:2015 Quality Management System

·18014001:2015 Environmental Management System

·1S045001:2018 Occupational Health and safety management

625~650w N-type monocrystalline silicon bifacial modules

Mechanical Characteristics

Cell Type	N- type Mono-crystalline
No. of cells	156（78×2）
Dimensions	2465×1134×30 mm
Weight	34.0 kg
Front Glass	2.0 mm, Anti-reflection Coating
Back Glass	2.0 mm, Heat Strengthened Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68 Rated
Protection Class	Class II
IEC Fire Type	Class C
Connector Type	JK03M/MC4/Others
Output Cables	4.0 mm^2 (+): 400 mm , (-): 200 mm or Customized Length

Packaging Configuration

Pallet Dimentions	2525×1140×1251mm
Packing Detail (Two pallets = One stack)	13m flatbed: 36/pallet, 20/pallet, 720/pallet 17.5m flatbed: 36/pallet, 24/pallet, 864/pallet

Specifications(STC)

Maximum Power - Pmax [Wp]	625	630	635	640	645	650
Maximum Power Voltage - Vmp [V]	47.54	47.70	47.86	48.02	48.17	48.33
Maximum Power Current - Imp [A]	13.15	13.21	13.27	13.33	13.39	13.45
Open-circuit Voltage - Voc [V]	56.95	57.08	57.21	57.34	57.47	57.60
Short-circuit Current - Isc [A]	13.80	13.86	13.92	13.98	14.04	14.10
Module Efficiency STC [%]	22.4	22.5	22.7	22.9	23.1	23.3
Power Tolerance	0 ~ + 3 %					
Temperature Coefficients of Pmax	-0.29 %/°C					
Temperature Coefficients of Voc	-0.25 %/°C					
Temperature Coefficients of Isc	0.045 %/°C					

STC: Irradiance 1000W/m^2, Cell Temperature 25°C, AM=1.5

Specifications(BNPI)

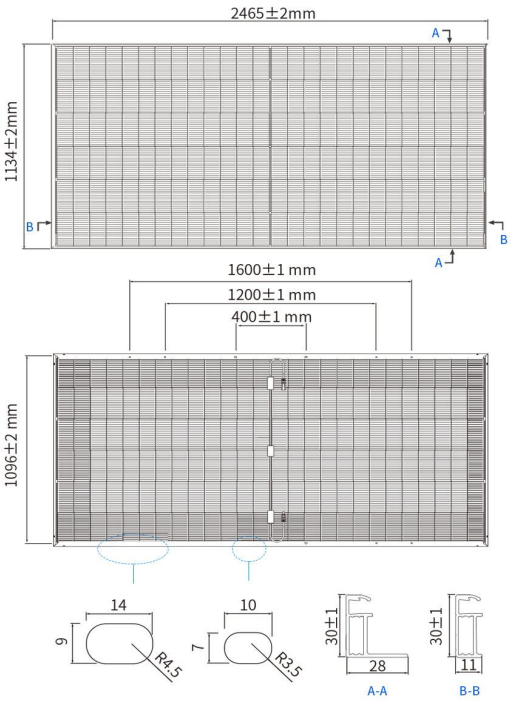
Maximum Power - Pmax [Wp]	688	693	699	704	710	716
Maximum Power Voltage - Vmp [V]	47.57	47.73	47.91	48.06	48.23	48.40
Maximum Power Current - Imp [A]	14.46	14.52	14.59	14.65	14.72	14.79
Open-circuit Voltage - Voc [V]	57.00	57.14	57.28	57.42	57.56	57.70
Short-circuit Current - Isc [A]	15.19	15.27	15.35	15.43	15.51	15.59

BNPI: Irradiance: front 1000W/m^2, rear 135W/m^2, Cell Temperature 25°C, AM=1.5

Application Conditions

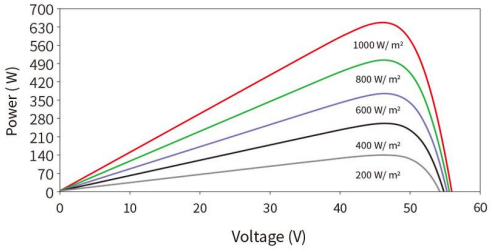
Operating Temperature	-40 °C ~ +70 °C
Maximum System Voltage	1500 VDC (IEC)
Maximum Series Fuse Rating	30 A
Bifaciality Coefficent	φVoc: 98±5 %, φIsc: 80±5 %, φPmax: 80±5 %

Engineering Drawings

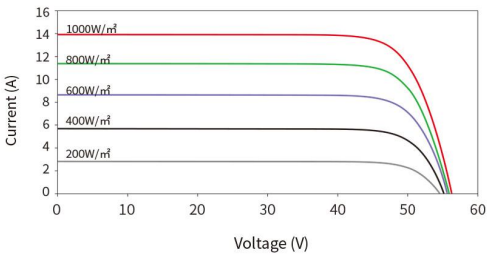


Electrical Performance

Power-Voltage Curves 640W



Current-Voltage Curves 640W



Goosun Energy Construction Group Co., Ltd