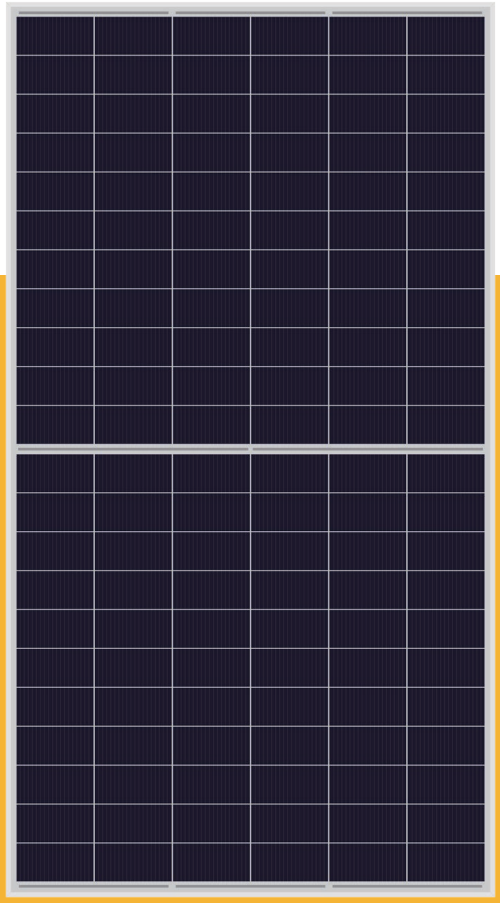
RecsunSolar

N-TOPCON
Tunnel Oxide Passivating Contact



680W-720W

G12 132HC 18BB SINGLE-GLASS

Maximum Power Output	Maximum Module Efficiency	Power Output Tolerance
720W	**23.23%**	**0-+3%**

KEY FEATURES

High Efficiency
Leading module efficiency in industry, the highest efficiency up to 23.82%

Excellent Appearance and Performance
Bifacial solar cell, symmetrical design, low risk of micro-crack

High Reliability
Passed 3*IEC standard test, 15 years materials warranty, 30 years output linear power warranty

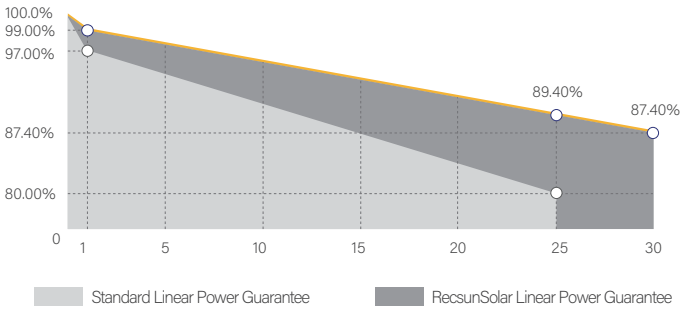
Excellent Rear Side Power Generation
Bifaciality is up to 80%, up to 30% more energy yield than conventional modules

Better low irradiance performance
Higher power output even under low irradiance environments like on cloudy or foggy days

Extensive Application Scenes
More extensive application scenes, such as snow field, vertical installation, high humidity, strong wind and desert

Product and Quality Certifications

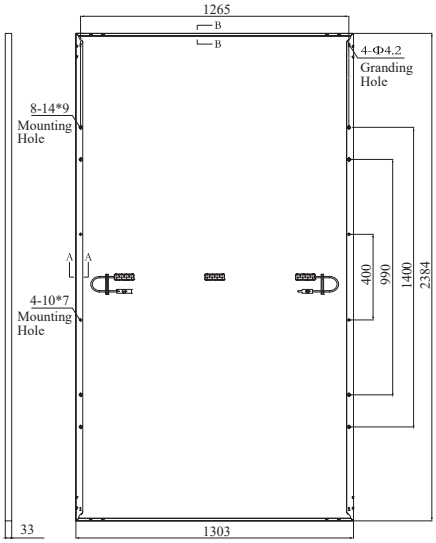
IEC 61215, IEC 61730
ISO 9001: Quality Management System
ISO 14001: Environment Management System
ISO 45001: Occupational Health and Safety Management System
IEC 62716, IEC 61701: Ammonia, Salt mist corrosion test
IEC TS 62804-1, IEC 60068-2-68: PID test, Dust and Sand test

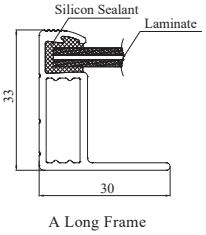


Leading Product and Power Warranty

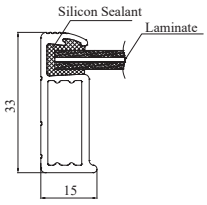
-1.00%1st-Year Degradation -0.40%Annual Degradation 15Materials and Workmanship Warranty 30Linear Power Warranty

ENGINEERING DRAWING (mm)



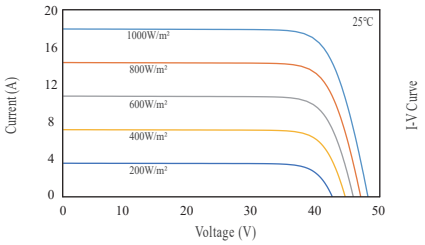


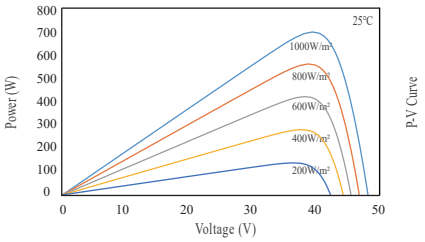
A Long Frame



B Short Frame

CHARACTERISTIC CURVES (700W)





ELECTRICAL PARAMETERS (Test Condition is Based on the Front Side)

Module Type	N680H132G12S		N690H132G12S		N700H132G12S		N710H132G12S		N720H132G12S	
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Nominal Max. Power(Pmax/W)	680	519	690	527	700	535	710	543	720	552
Open Circuit Voltage(Voc/V)	47.40	44.90	47.80	45.30	48.20	45.70	48.60	46.10	49.00	46.50
Short Circuit Current(Isc/A)	18.18	14.65	18.26	14.71	18.34	14.77	18.42	14.83	18.50	14.89
Maximum Power Voltage(Vmp/V)	39.60	37.10	40.00	37.50	40.40	37.90	40.80	38.30	41.20	38.70
Maximun Power Current(Imp/A)	17.20	13.98	17.27	14.05	17.34	14.12	17.41	14.19	17.48	14.26
Efficiency(%)	21.89%		22.21%		22.53%		22.85%		23.23%	

STC: Irradiance = 1000 W/m², Cell Temperature = 25°C, AM = 1.5, Average efficiency reduction of 4.5% at 200W/m².
NOTC: Irradiance = 800 W/m², Ambient Temperature = 20°C, AM = 1.5, Wind Speed = 1 m/s.

MECHANICAL PARAMETERS

Cell Type	210*105mm, 132HC	Connector	MC4 Original/Compatible
Module Size&Weight	2384×1303×33mm, 34Kg	Junction Box	IP68, 3 Bypass Diodes
Glass	3.2mm AR Coated Heat Strengthened Glass	Frame	Anodized Aluminium Alloy(Sliver)
Backsheet	White/Transparent, TPT/PET	Cable	4mm², Cable Length 300mm(customized)

TEMPERATURE COEFFICIENTS

Nominal Operating Cell Temperature	43°C(±2°C)	Temperature Coefficient of Voc	-0.250%/°C
Temperature Coefficient of Pmax	-0.310%/°C	Temperature Coefficient of Isc	+0.040%/°C

BACKSIDE POWER GAIN 10% (Transparent Backsheet Type)

Module Frontside Power(W)	680	690	700	710	720
Nominal Max. Power(Pmax/W)	748	759	770	781	792
Open Circuit Voltage(Voc/V)	47.4	47.8	48.2	48.6	49.0
Short Circuit Current(Isc/A)	19.95	20.04	20.13	20.22	20.31
Max. Power Voltage(Vmp/V)	39.6	40.0	40.4	40.8	41.2
Max. Power Current(Imp/A)	18.89	18.98	19.06	19.14	19.22

OPERATING PARAMETERS

Max. System Voltage	DC1500V
Power Tolerance	0 - +3%
Operating Temperatue	-40°C - +85°C
Max. Fuse Rated Current	35A
Front Static Load	Snow 5400Pa, Wind 2400Pa
Packaging Data	33PCS/Pallet; 594PCS/40HQ

RecsunSolar

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