RecsunSolar

N-TOPCON
Tunnel Oxide Passivating Contact

580W-600W

M10 144HC 18BB SINGLE-GLASS

Maximum Power Output	Maximum Module Efficiency	Power Output Tolerance
600W	**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

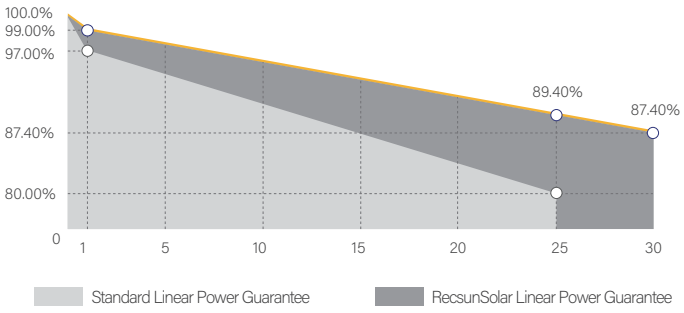
Excellent Rear Side Power Generation
Bifaciality is up to 80%, up to 30% more energy yield than conventional modules

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

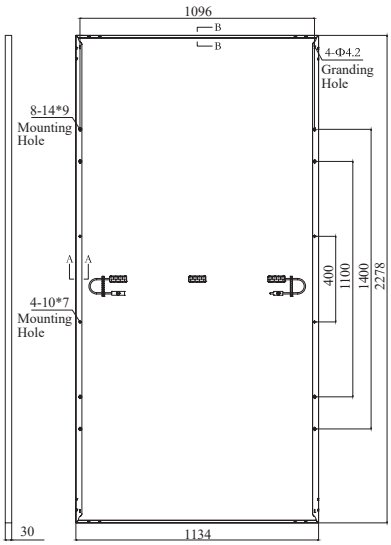
IEC 61215, IEC 61730
ISO 9001: Quality Management System
ISO 14001: Environment Management System
ISO 45001: Occupational Health and Safety Management System
IEC 62716, IEC 61701: Ammonia, Salt mist corrosion test
IEC TS 62804-1, IEC 60068-2-68: PID test, Dust and Sand test

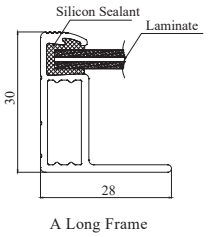


Leading Product and Power Warranty

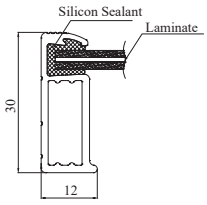
-1.00% 1st-Year Degradation -0.40% Annual Degradation 15 Materials and Workmanship Warranty 30 Linear Power Warranty

ENGINEERING DRAWING (mm)



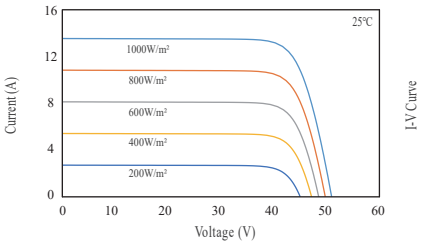


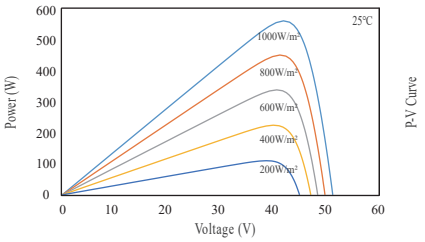
A Long Frame



B Short Frame

CHARACTERISTIC CURVES (590W)





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

Module Type	N580H144M10S		N585H144M10S		N590H144M10S		N595H144M10S		N600H144M10S	
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Nominal Max. Power(Pmax/W)	580	440	585	445	590	450	595	455	600	460
Open Circuit Voltage(Voc/V)	51.40	49.10	51.60	49.30	51.80	49.50	52.00	49.70	52.20	49.90
Short Circuit Current(Isc/A)	14.23	11.47	14.29	11.53	14.35	11.59	14.41	11.65	14.47	11.71
Maximum Power Voltage(Vmp/V)	43.20	40.60	43.40	40.80	43.60	41.00	43.80	41.20	44.00	41.40
Maximun Power Current(Imp/A)	13.43	10.84	13.48	10.91	13.53	10.98	13.58	11.05	13.63	11.12
Efficiency(%)	22.45%		22.65%		22.84%		23.04%		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	182*91mm, 144HC	Connector	MC4 Original/Compatible
Module Size&Weight	2278×1134×30mm, 28Kg	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	45°C(±2°C)	Temperature Coefficient of Voc	-0.260%/°C
Temperature Coefficient of Pmax	-0.310%/°C	Temperature Coefficient of Isc	+0.046%/°C

BACKSIDE POWER GAIN 10% (Transparent Backsheet)

Module Frontside Power(W)	580	585	590	595	600
Nominal Max. Power(Pmax/W)	638.0	643.5	649.0	654.5	660.0
Open Circuit Voltage(Voc/V)	51.4	51.6	51.8	52.0	52.2
Short Circuit Current(Isc/A)	15.60	15.66	15.72	15.78	15.84
Max. Power Voltage(Vmp/V)	43.2	43.4	43.6	43.8	44.0
Max. Power Current(Imp/A)	14.77	14.83	14.89	14.94	15.00

OPERATING PARAMETERS

Max. System Voltage	DC1500V
Power Tolerance	0 - +3%
Operating Temperatue	-40°C - +85°C
Max. Fuse Rated Current	30A
Front Static Load	Snow 5400Pa, Wind 2400Pa
Packaging Data	36PCS/Pallet; 720PCS/40HQ

RecsunSolar

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