

SUNGROW

More power More friendly

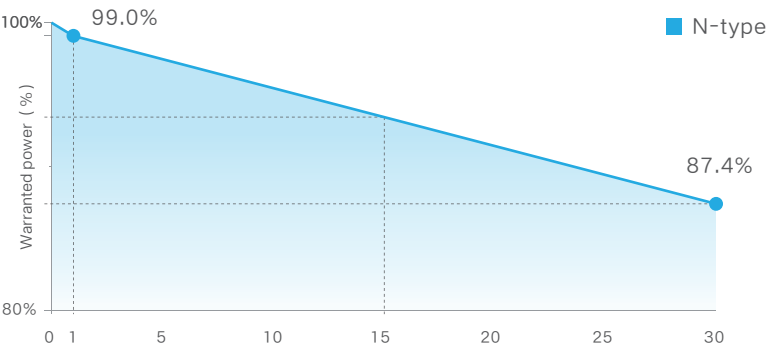
SG-54TG4D
500-520W

N-type TOPCon Solar Double Glass Bifacial Module
Maximum Efficiency 23.4%

Quality Certification



Product Warranty



25-year Warranty for Materials and Processing

30-year Warranty for Extra Linear Power Output

First Year Power Degradation<1%

Year 2-30 Power Degradation<0.4%

Power warranty applies at STC condition or only applies to the front side of the module

Product Performance

Higher Efficiency
Excellent MBB technology and leading process technology, conversion efficiency up to 23.4%

Smaller Size
A lightweighted design for convenient transportation and installation

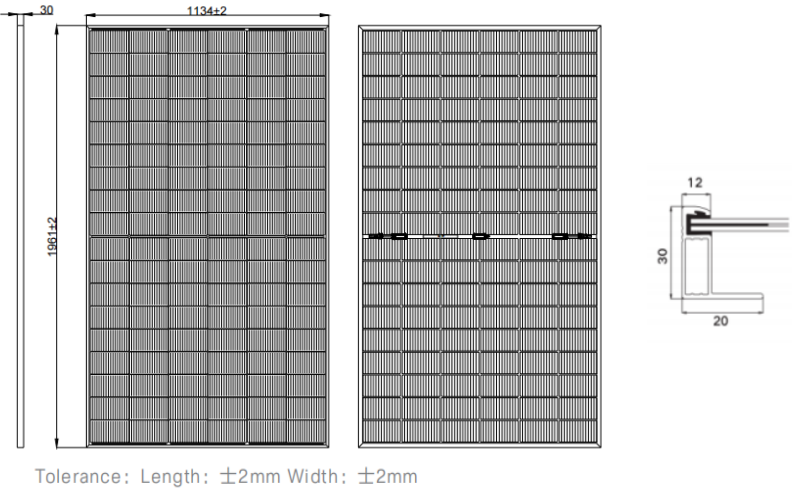
Higher Bifacial Factor
The rear power output and generation capacity are 20% and 3.5% higher than PERC, respectively

Superior Temperature Coefficient
Generating 1%-2% more power than P-type modules in high temperature regions

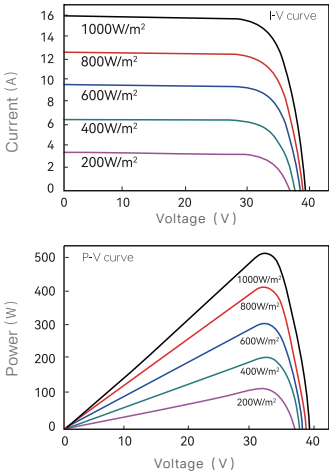
Non-destructive Laser Cutting Technology
Achieving better cell strength, lower micro-cracks risk for better product reliability

Superior Mechanical Load Capacity
Heavy snow load up to 5400 Pa
wind load up to 2400 Pa

Engineering Drawings



I-V and P-V Curves Temperature: (25 ± 2) °C



Electrical Characteristics

Module Type	SG-54TG4D-500	SG-54TG4D-505	SG-54TG4D-510	SG-54TG4D-515	SG-54TG4D-520
Maximum Power Pmax (W)	500	505	510	515	520
Voltage at Maximum Power (Vmp/V)	33.70	33.94	34.19	34.43	34.67
Current at Maximum Power (Imp/A)	14.84	14.88	14.92	14.96	15.00
Open Circuit Voltage (Voc/V)	40.06	40.24	40.42	40.60	40.78
Short Circuit Current (Isc/A)	15.89	15.92	15.95	15.98	16.01
Module Efficiency (%)	22.5	22.7	22.9	23.2	23.4
Pmax/Voc/Isc Tolerance	±3%		Maximum System Voltage		DC1500V
Maximum Series Fuse Rating	30A		Operating Temperature		-40°C~+70°C
Fire Rating	Class C		Power SortingTolerance		0~+5W

STC: Irradiance 1000W/m², Cell Temperature 25°C, AM=1.5

Maximum Power Pmax (W)	550	556	561	567	572
Voltage at Maximum Power (Vmp/V)	33.70	33.94	34.19	34.43	34.67
Current at Maximum Power (Imp/A)	16.32	16.37	16.41	16.46	16.50
Open Circuit Voltage (Voc/V)	40.06	40.24	40.42	40.60	40.78
Short Circuit Current (Isc/A)	17.48	17.51	17.55	17.58	17.61
aBSI(A)	19.42	19.46	19.49	19.53	19.57
Pmax/Voc/Isc/aBSI Tolerance	±3%				
Bifaciality Coefficient	φVoc: 100±3 %, φIsc: 80±10 %, φPmax: 80±10 %				

BNPI: Irradiance Front 1000W/m², Rear 135W/m² Cell Temperature 25°C, AM=1.5
aBSI: Irradiance Front 1000W/m², Rear 300W/m² Cell Temperature 25°C, AM=1.5

Mechanical Characteristics

Cell Type	N- type mono-crystalline
Cell Orientation	108 (2 x 54)
Dimension	1961 x 1134 x 30mm
Weight	27.5kg
Glass	Dual glass, 2.0mm+2.0mm semi-tempered glass
Frame	Composite material
Junction Box	IP68 rated
Output Cables	4mm², (+): 1200mm, (-): 1200mm or customized length
Connector Type	Z4S-abcd(Zerun)/PV-ZH202B(Zhonghuan)/PV-HT03x(x=0,1or 2)(Haitian)/QC4.10-cds(QC Solar)/PV-KST4-EVO2A/xy, PV-KBT4-EVO2A/xy(Staubli)
Mechanical Load	+5400Pa (Front side) /-2400Pa (Rear side)

Temperature Characteristics

Temperature Coefficients of Pmax	-0.30%/°C
Temperature Coefficients of Voc	-0.25%/°C
Temperature Coefficients of Isc	0.046%/°C
Temperature Rating [T98]max	70°C

Packaging Configuration

Pallet Dimension	1991 x 1120 x 1250 mm
Packing Detail	37 pcs/pallets, 74 pcs/stack, 864 pcs/ 40'HQ container

SUNGROW

SUNGROW RENEWABLES DEVELOPMENT CO., LTD.

No.2 Tianhu Road, New & High Technology Industrial Development Zone, 230088 Hefei, PEOPLE'S REPUBLIC OF CHINA

modulesales@sungrowpower.com www.sungrowplant.com

*Specifications included in this datasheet are subject to change without notice. Sungrow Renewables reserves the right of final interpretation.

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