



**Tier1**

BloombergNEF

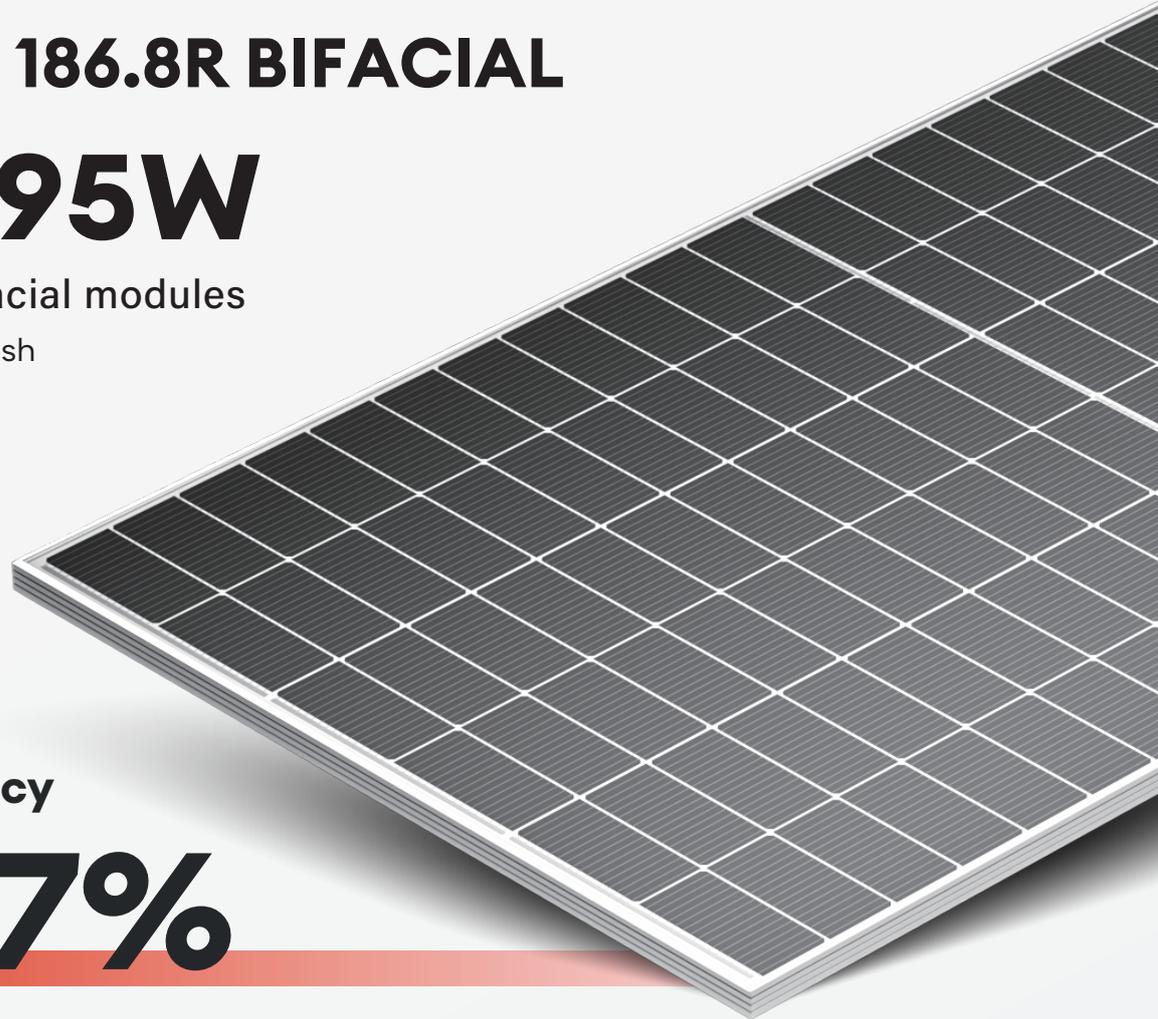
*Power the future*

# TOPCon 186.8R BIFACIAL

## 580-595W

High efficiency bifacial modules

· Silver frame, White mesh



 UTILITY

 C&I

Module efficiency

# 22.47%



Better leveled cost of energy



Better high temperature stability

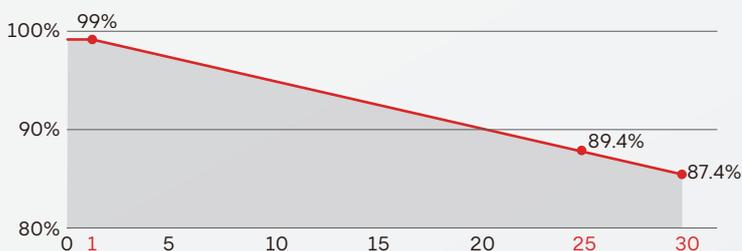


Improved low-light performance



Excellent bifacial performance

Linear performance guarantee for 30 years



### WARRANTY

Quality Guarantee **25** years

Power Warranty **30** years

### CERTIFICATE



## ELECTRIC CHARACTERISTICS

## SPDG (580/595W)-N144R10

Model of modules	SPDG580-N144R10		SPDG585-N144R10		SPDG590-N144R10		SPDG595-N144R10	
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Power ( Pmax/W )	580	438.00	585	441.70	590	445.70	595	449.50
Maximum power voltage ( Vmp )	43.13	41.00	43.27	41.10	43.39	41.20	43.50	41.30
Maximum power current ( Imp )	13.45	10.69	13.52	10.75	13.60	10.81	13.68	10.88
Open circuit voltage ( Voc )	52.06	49.20	52.17	49.30	52.28	49.40	52.38	49.50
Short circuit current ( Isc )	14.00	11.28	14.08	11.35	14.16	11.41	14.24	11.48
Module efficiency	21.90%		22.09%		22.28%		22.47%	

STC ( Electrical parameters at standard test conditions. STC:AM=1.5, 1000W/m<sup>2</sup> ,Cells Temperature25°C )

NMOT ( Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20°C,AM1.5,Wind Speed 1m/s )

## ELECTRICAL CHARACTERISTICS WITH 15% REAR SIDE POWER GAIN

Front power Pmax/W	667.00	672.75	678.50	684.25
Maximum power voltage ( Vmp )	43.13	43.27	43.39	43.50
Maximum power current ( Imp )	15.46	15.55	15.64	15.73
Open circuit voltage ( Voc )	52.06	52.17	52.28	52.38
Short circuit current ( Isc )	16.10	16.19	16.28	16.38

## STRUCTURAL CHARACTERISTICS

Module size (L*W*H)	2333x1134x35mm
Weight	31.7kg
Cell	144 cells,N type Mono-Crystalline , 182mm×93.4mm
Front glass	2.0mm , Anti-Reflection Coating
Back glass	2.0mm , Heat Strengthened Glass
Frame	Anodized aluminum alloy
Junction box	IP68 , 3 bypass diodes
Output wire	4mm <sup>2</sup>
Wire length	Line length 1300mm/customized
Connector	MC4 Compatible
Packing Specification	31 pcs/Pallet ; 620 pcs/40' HQ

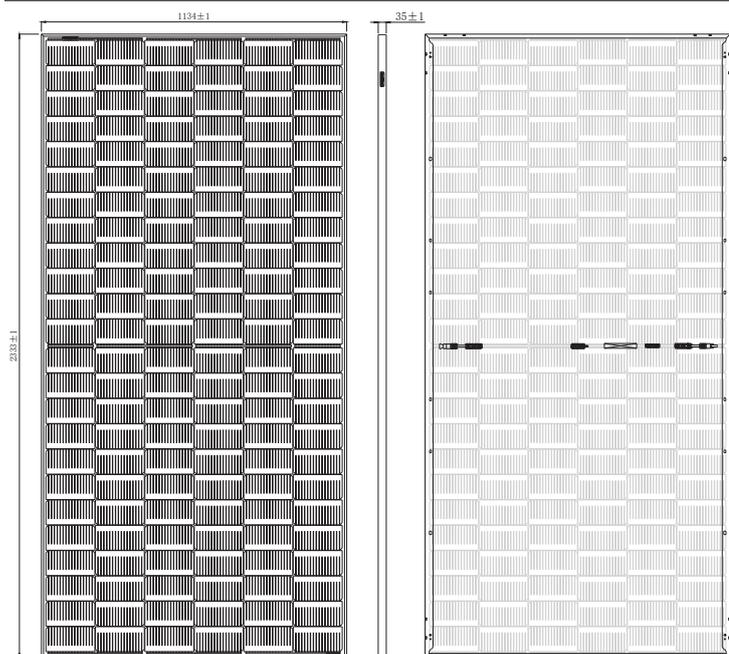
## OPERATING PARAMETERS

Power tolerance (W)	(0~+5W)
Maximum system voltage (V)	1500V
Maximum rated fuse current (A)	30A
Current operating temperature (C)	-40~+85°C
Mechanical load	+5400Pa/-2400Pa

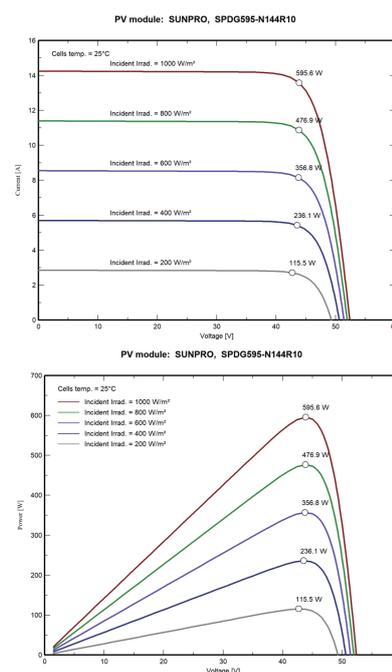
## TEMPERATURE CHARACTERISTICS

Temp. Coeff. of Isc (TK Isc)	0.046% / °C
Temp. Coeff. of Voc (TK Voc)	-0.25% / °C
Temp. Coeff. of Pmax (TK Pmax)	-0.30% / °C
Normal Operating Cell Temperature	45±2°C

## MODULE DIMENSIONS(MM)



## I-V CHARACTERISTICS AT DIFFERENT IRRADIATION



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\*The above parameters are for reference only, and the actual parameters of the factory shall prevail