

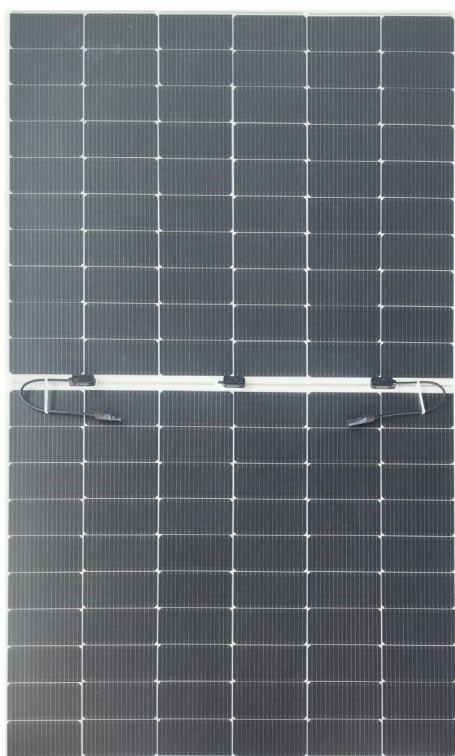
VENUS SERIES

SF60-18N 440W-460W

High Efficiency Low LID TOPCon cel with Half-cut Technology
Big Size : Cell 182 x 91.875mm Monocrystalline

440W / 445W

450W / 455W / 460W



Fast-Installation

Through faster installation, requires no penetration, reduces time on roof and saves installation costs.

Safety

Integration with underlying installation surface, ensuring the waterproof performance and safety performance of the roof.

Ultra-light

Glass free module weighs 6.3kg, 70% lighter than conventional glass modules.

Flexibility

The biggest advantage of flexible photovoltaic modules is that they can be bent and folded, which allows them to adapt to more application scenarios.

- Module Efficiency
21.1%
- No. of Cells
120(6 × 20)
- Weight
6.3±0.5Kg
- Dimensions
1927 × 1131 × 3mm

Comprehensive and First-rate Certification System

IEC61215: 2021. IEC61730: 2023. UL61730: 2017. IEC62804: 2015
ISO9001 ISO14001 and ISO45001



VENUS SERIES

Better Choice For Higher Efficiency



Electrical Characteristics

Module	SF-60-18N				
Maximum Power at STC (Pmax)	440W	445W	450W	455W	460W
Open - Circuit Voltage (Voc)	41.03V	41.18V	41.33V	41.48V	41.63V
Short - Circuit Current (Isc)	13.76A	13.83A	13.90A	13.97A	14.04A
Optimum Operating Voltage (Vmp)	34.48V	34.63V	34.78V	34.93V	35.08V
Optimum Operating Current (Imp)	12.76A	12.85A	12.93A	13.02A	13.11A
Module efficiency	20.2%	20.4%	20.6%	20.8%	21.1%
Power Tolerance	0 ~ + 5W				
Maximum System Voltage	1500V DC (UL / IEC)				
Maximum Series Fuse Rating	25A				
Operating Temperature	-40 ℃ to +85 ℃				

* STC: Irradiance 1000W/m², module temperature 25, AM=1.5
Optional black frame or white frame module according to customer requirements

NMOT

Module	SF-60-18N				
Maximum Power	329.3W	332.9W	336.6W	340.3W	344.1W
Open - Circuit Voltage (Voc)	48.4V	48.48V	48.59V	48.69V	48.78V
Short - Circuit Current (Isc)	8.75A	8.83A	8.91A	9.00A	9.09A
Optimum Operating Voltage (Vmp)	40.10V	40.24V	40.33V	40.41V	40.50V
Optimum Operating Current (Imp)	8.21A	8.27A	8.35A	8.42A	8.49A
NMOT	45±2 ℃				

* NMOT: Irradiance 800W/m², ambient temperature 20℃, wind speed 1m/s

Mechanical Characteristics

Solar Cells	Monocrystalline 182 × 91.875mm
No. of Cells	120(6 × 20)
Dimensions	1927 × 1131 × 3 mm
Weight	6.3±0.5kg
Frame	Framless
Junction Box	IP68
Cable	4mm ² (UL / IEC) length: (+)400mm, (-)200mm / customized length
Connectors	MC4-EVO2/MC4 Compatible
Packaging Configuration	58pcs / box, 1276pcs /40'HQ container

Temperature Characteristics

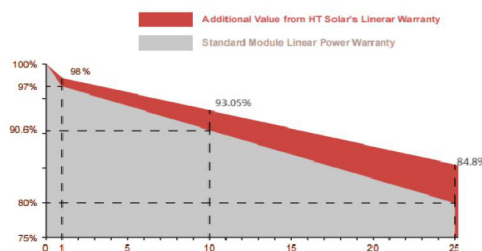
Temperature Coefficient of Pmax	-0.31%/℃
Temperature Coefficient of Voc	-0.25%/℃
Temperature Coefficient of Isc	+0.046%/℃

Warranty

12 - years
product warranty

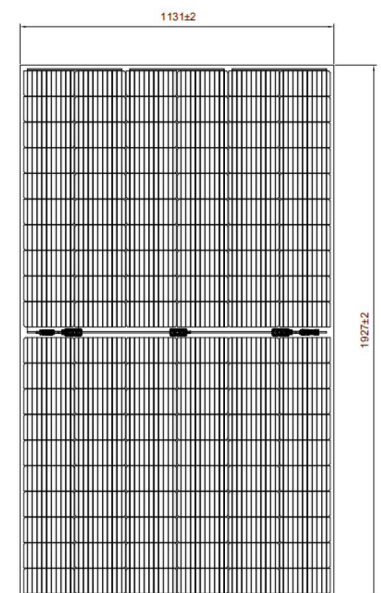
25 - years
warranty on power output

Specific information is referred to
the product quality guarantee



The module recycling should be carried out by the professional institutions at the end of module life cycle

Engineering Drawing



IV Curves

