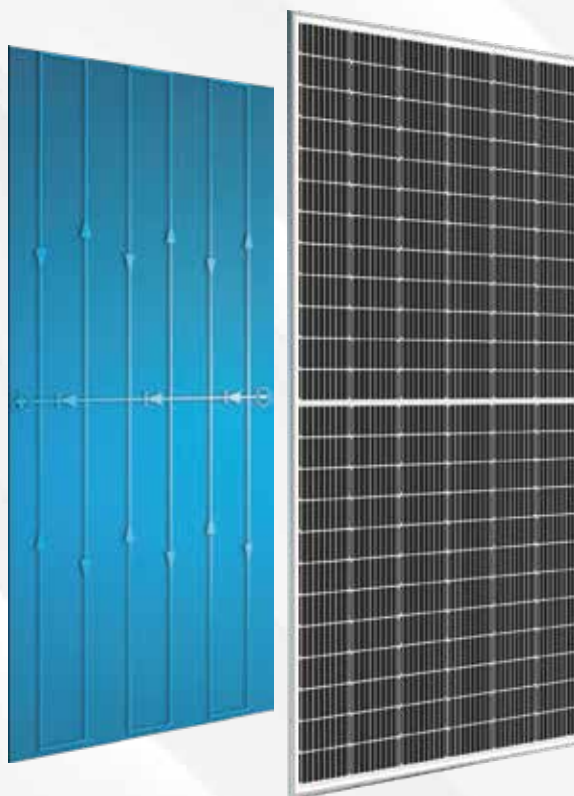


# JSGFM HALF-CELL TECHNOLOGY

## HIGHER EFFICIENCY & HIGHER RELIABILITY & HIGHER POWER GENERATION

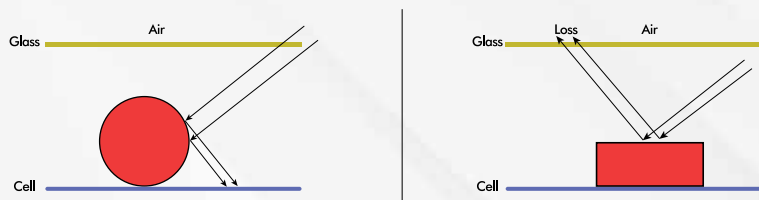
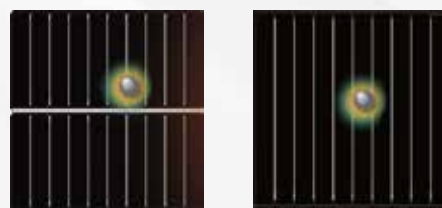
To cut a standard size solar cell into two and a half identical cells perpendicular to the main grid line by laser cutting method and then welded in series, with the voltage of half cell remains unchanged compared with the whole cell, while the power and current are halved. Assembled with multi-busbar PERC cells, the half-cell configuration of the modules offers the advantages of higher power output, better temperature-dependent performance, reduced shading effect on the energy generation, lower risk of hot spot, as well as enhanced tolerance for mechanical loading.



## HALF-CELL DESIGN

### LOWER HOT SPOT TEMPERATURE

Shade reduces the efficiency and shortens the lifetime of modules because of hot spot, while half-cell tech lowers the hot spot temperature 10-20°C, raising the credibility and safety of the modules.

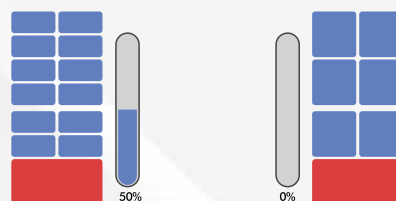


### HIGHER LIGHT ABSORPTION

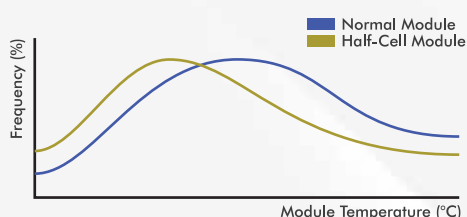
Special round ribbon brings a secondary reflection of light, which provides more power generation.

### IMPROVED PERFORMANCE OF HALF CELLS

Half Cell design ensures an improved shading response, resulting in higher yields when the module is partially shaded. Shading loss experienced by half cell modules is much better than conventional modules in certain shading conditions.



### MODULE TEMPERATURE



### TEMPERATURE CHARACTERISTICS

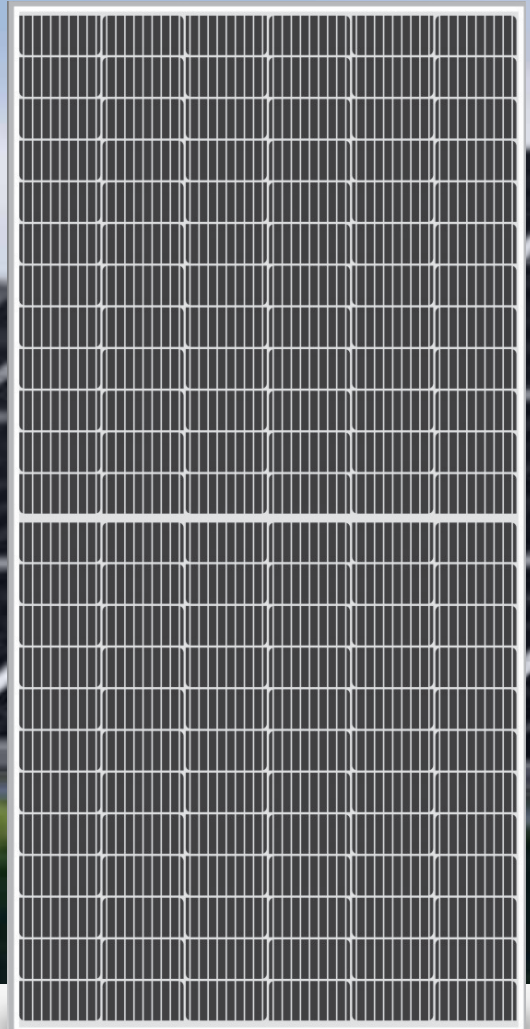
Normal Operating Cell Temperature (Noct)	55°C+2°C
Temperature Coefficient Of Pmax	-0.36%/°C
Temperature Coefficient Of Voc	-0.29% C
Temperature Coefficient Of Isc	0.05%/°C

# TIGER

SERIES

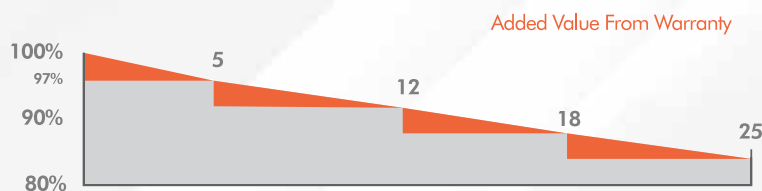
## JSGFM 405W/450W

HALF-CUT MONO PERC



### KEY SALIENT FEATURES

- High output power
- Better power generation under shadows
- Strong anti-hot spot ability
- Strong mechanical load capacity
- Super strong frame
- 1500V system voltage

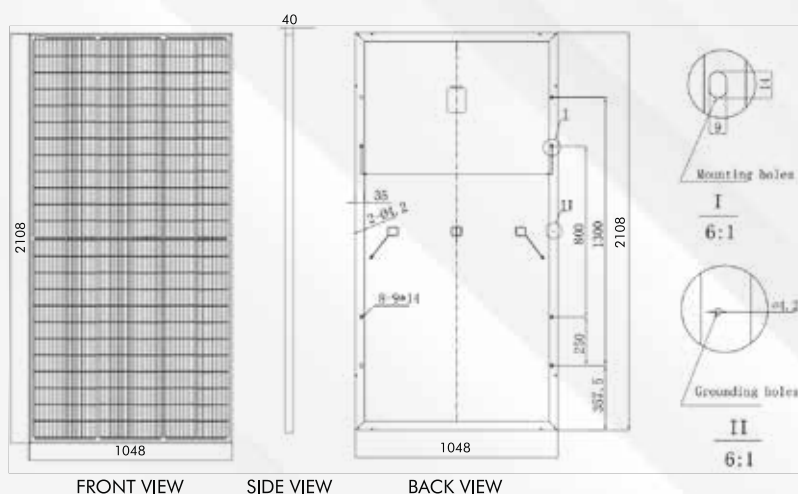


Linear Performance Warranty

- 10 Years Manufacturing Warranty
- 25 Years Linear Life
- Terms & Conditions Apply

### CERTIFICATIONS





## MECHANICAL SPECIFICATION

Cell Type	Mono Crystalline 158.75x79.375mm
Number Of Cells	144 (6x24)
Dimensions(AxBxC)	2108x1048x40mm
Weights	25.5kg
Glass	3.2mm Tempered Low Iron Glass
Aluminium Frame	Anodised Aluminium
Junction Box	Split Junction Box (IP68 ,three diode)
Connector	Mc4 Compatible
Output Cables	4.0mm <sup>2</sup> , +300mm, -300mm Customized Length

## ELECTRICAL CHARACTERISTICS

Module Type	405W		450W	
	STC	NOCT	STC	NOCT
Maximum Power At STC(Pmax)	405W	360.4W	450W	400.7W
Short Circuit Current(Isc)	10.30A	9.72A	11.64A	9.61A
Open Circuit Voltage(Voc)	49.8V	41.5V	49.7V	41.3V
Maximum Power Current(Impp)	9.93A	7.98A	10.15A	8.17A
Maximum Power Voltage(Vmpp)	40.8V	38.1V	40.4V	38.7V
Module Efficiency	20.18%		20.18%	
Power Tolerance	0~+5W		0~+5W	
Maximum System Voltage	VDC 1500V			
Maximum Series Fuse	20A			
Increased Snowload Acc.to Iec 61215	5400Pa			
Operating Temperature	-40~+85°C			
Number Of Bypass Diodes	3			
Normal Operating Cell Temperature(Noct)	45°C~60°C			
Temperature Coefficient Of Pmax	-0.36%/°C			
Temperature Coefficient Of Voc	-0.29%/°C			
Temperature Coefficient Of Isc	0.05%/°C			

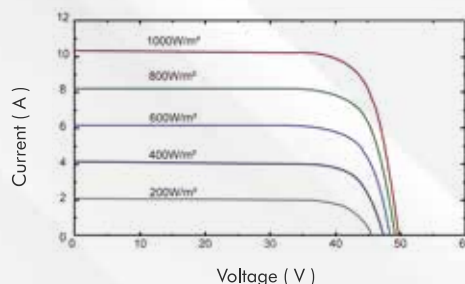
STC: 1000W/m<sup>2</sup> irradiance, 25°C cell temperature, AM1.5. NOCT: Irradiance at 800W/m<sup>2</sup>, Ambient Temperature 20°C, wind speed 1m/s.

## JSGFM - 144 - 405W/450W

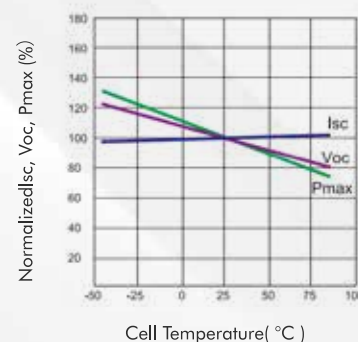
## I-V CURVES

I-V Curves at JSGFM 144-405W/450W at different Irradiances

Cell Temp: 25°



Power voltage current curve at different temperature



## PACKING CONFIGURATION

Container	40' HQ
Pieces Per Container	660

