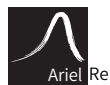


**S635M66NF3BF S640M66NF3BF**  
**S645M66NF3BF S650M66NF3BF**

Shinson is a leading professional supplier in the renewable energy industry, specializing in the production and distribution of high-quality PV modules, completed PV kits, and energy storage solutions. With a commitment to sustainable energy solutions, we strive to provide innovative and reliable products to meet the growing global demand for clean and efficient power generation.

With a focus on quality, innovation, and customer satisfaction, we strive to empower individuals, businesses, and communities with reliable and sustainable energy solutions. By harnessing the power of the sun and embracing renewable energy, we are driving the transition towards a greener and more sustainable future.

S-Max™ series of PV modules are designed for commercial projects and large solar farms with highest power output for saving more than 15% of BOS.



### High power with high efficiency bifacial solar cells

High power output design to save BOS(balance of system) cost, less payback time.



### High reliability with top quality raw materials

Built with top qualified and certified materials to ensure the performance during long working period and working in tough conditions



### Longer life span with 30 years warranty

Shinson extended the warranty period up to 30 years for both performance and workmanship which is on top level of the industry for backsheet modules.



### Lower power degradation with more generation

Ensured PID resistance through cell process and module material control to help harvest more, guaranteed only 0.5% annual power degradation .

## S.max<sup>™</sup> Solar Modules

# 650W

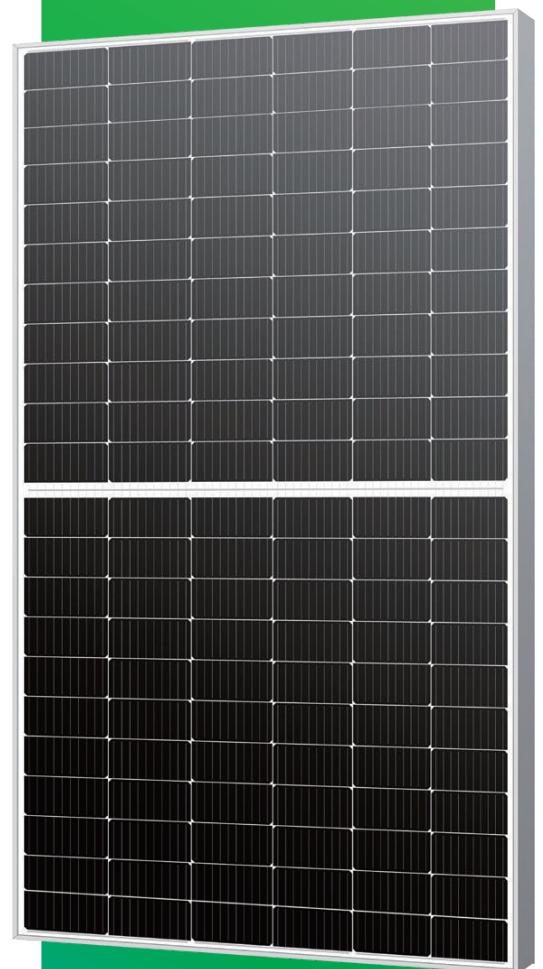
Maximum Output Power

# 132

Bifacial Cells

# 10~30%

Extra Backside Gains



### Electrical Data (STC)

Part Number	S635M66NF3BF	S640M66NF3BF	S645M66NF3BF	S650M66NF3BF
Peak Power Watts-P <sub>MAX</sub> (Wp)*	635	640	645	650
Power Output Tolerance	0/+5W			
Open Circuit Voltage-V <sub>oc</sub> (V)	49.68	49.88	50.08	50.28
Short Circuit Current-I <sub>sc</sub> (A)	16.26	16.32	16.38	16.44
Maximum Power Voltage-V <sub>MPP</sub> (V)	41.21	41.40	41.59	41.77
Maximum Power Current-I <sub>MPP</sub> (A)	15.41	15.46	15.51	15.56
Panel Efficiency(%)	23.51	23.69	23.88	24.06

STC :Irradiance 1000w/m²,Cell Temperature 25°C \*Mearsure tolerance:±3%

### Electrical Data (NOCT)

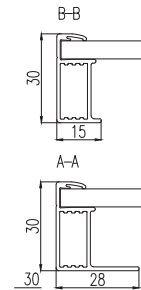
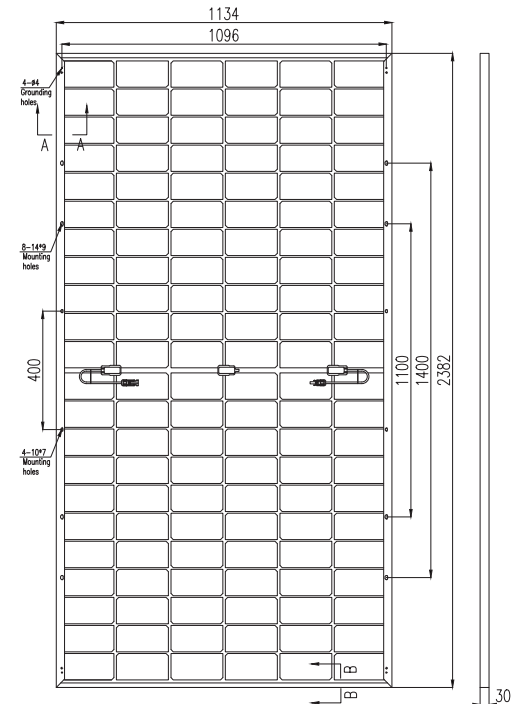
MaximumPower-P <sub>MAX</sub> (Wp)*	704	709	715	720
Open Circuit Voltage-V <sub>oc</sub> (V)	49.68	49.88	50.08	50.28
Short Circuit Current-I <sub>sc</sub> (A)	18.02	18.08	18.15	18.22
Maximum Power Voltage-V <sub>MPP</sub> (V)	41.21	41.40	41.59	41.77
Maximum Power Current-I <sub>MPP</sub> (A)	17.07	17.13	17.19	17.24

NOCT:Irradiance at 800W/m²,Ambient Temperature 20°C,Wind Speed 1m/s

### Mechanical Data

Panel Dimension(H/W/0)	2382*1134*30mm
Weight	32.4kg
Cell Type	N-Topcon cells
Cell Size	210X182 mm
Cell Number	132
Glass	2.0+2.0mm Tempered AR coating Glasses
Encapsulant Type	POE
Frame Type	Anodized Aluminium Alloy
Junction Box Diodes	3
Junction Box Protection Class	IP68
Connector Type	MC4 or MC 4 Compatible
Cable	1x4mm² ,(+): 300mm , (-): 200mm or Customized Length

### Dimensions of PV Module(mm)



Note: 400mm hole distance is only applicable when specified by the customer

### Temperature Ratings

Nominal Operating Cell Temp.(NOCT)	42±2°C
Temperature Coefficient of P <sub>MAX</sub>	-0.310%/°C
Temperature Coefficient of V <sub>oc</sub>	-0.26%/°C
Temperature Coefficient of I <sub>sc</sub>	0.046%/°C

\* Do not connect Fuse in Combiner Box with two or more strings in parallel connection

### Maximum Ratings

Operational Temperature	-40~±85 °C
Front/Rear Side Load	5400/2400pa
Max Series Fuse Rating	30A
Max System Voltage	1500V (IEC)
Fire Rating	Class A

### Packaging Configuration

Modules per box	36 pieces
Modules per 40'container	720 pieces

### Warranty

Product Workmanship Warranty	30 years
Output Power Warranty	30 years

