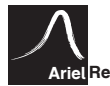


S465M60NT3B S470M60NT3B S475M60NT3B S480M60NT3B

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 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 tough outside conditions.



Longer life span with 25 years warranty

Shinson extended the warranty period up to 25 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 0.4% annual power degradation .

S.max™

Solar Modules

N-TOPcon / Ultra black

480W

Maximum Output Power

120

Half-Cut TOPcon Cells

22.24%

Maximum Efficiency



Electrical Data (STC)

Part Number	S465M60NT3B	S470M60NT3B	S475M60NT3B	S480M60NT3B
Peak Power Watts- $P_{MAX}(Wp)^*$	465	470	475	480
Power Output Tolerance	0/+5W			
Open Circuit Voltage- $V_{oc}(V)$	42.22	42.38	42.54	42.71
Short Circuit Current- $I_{sc}(A)$	14.07	14.15	14.23	14.31
Maximum Power Voltage- $V_{MPP}(V)$	34.89	35.05	35.21	35.38
Maximum Power Current- $I_{MPP}(A)$	13.33	13.41	13.49	13.57
Panel Efficiency(%)	21.55	21.78	22.01	22.24

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

Electrical Data (NOCT)

MaximumPower- $P_{MAX}(Wp)^*$	350	353	357	361
Open Circuit Voltage- $V_{oc}(V)$	40.10	40.25	40.41	40.57
Short Circuit Current- $I_{sc}(A)$	11.36	11.42	11.49	11.55
Maximum Power Voltage- $V_{MPP}(V)$	32.77	32.94	33.10	33.27
Maximum Power Current- $I_{MPP}(A)$	10.67	10.73	10.79	10.85

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

Mechanical Data

Panel Dimension(H/W/0)	1903x1134x30mm
Weight	24.2kg
Cell Type	TOPcon Mono Cells
Cell Number	120
Glass Type	3.2mm,Anti-Reflection Coating,High Transmission, Low Iron, Tempered Glass
Frame Type	Anodized Aluminium Alloy
Junction Box Protection Class	IP 68
Cables	TUV 1x4.0mm²,(+): 1200mm , (-): 1200mm or Customized Length

Temperature Ratings

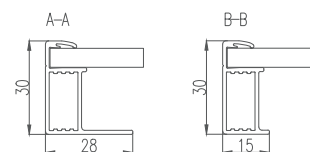
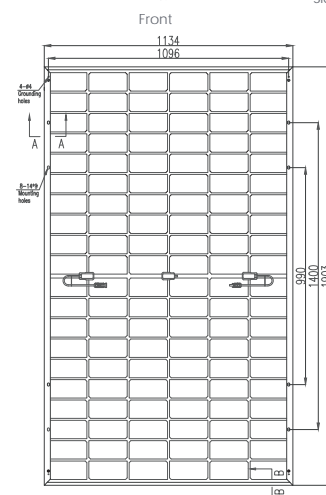
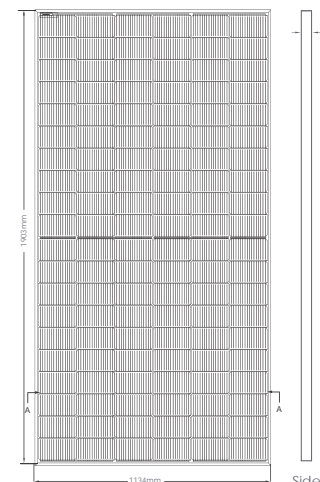
Nominal Operating Cell Temp.(NOCT)	42°C(±2°C)
Temperature Coefficient of P_{MAX}	-0.290%/°C
Temperature Coefficient of V_{oc}	-0.250%/°C
Temperature Coefficient of I_{sc}	+0.045%/°C

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

Packaging Configuration

Modules per box	36 pieces
Modules per 40'container	864 pieces

Dimensions of PV Module(mm)



Maximum Ratings

Operational Temperature	-40~±85 °C
Front/Rear Side Load	5400/2400pa
Max Series Fuse Rating	25A
Max System Voltage	1500V (IEC)
Fire Rating	Class 1(UN19177)

Warranty

Product Workmanship Warranty	25 years
Output Power Warranty	25 years

