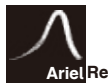


S450M72P2 S455M72P2 S460M72P2

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-Nano™ series of PV modules are designed for residential and small commercial installations with compact sizes and aesthetic appearances.



Roofing Aesthetics

S-Nano™ series has been designed with aesthetic in mind, the ultra black color looks well integrated to roofing ,creates on modern and improved aesthetic.



Higher efficiency ,Lower weight

Built with latest technology of PREC solar cells, the module efficiency can be up to 21.25% . Light weighted only 20.7kgs makes the module is more friendly for installation.



Longer life span with 25 years warranty

With double glassed and bifacial technology, shinson extended the warranty period up to 25 years for both performance and workmanship which is on top level of the industry.



Lower power degradation with more generation

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

S. nano™ Solar Modules Mono facial



Electrical Data (STC)

Part Number	S450M72P2	S455M72P2	S460M72P2
Peak Power Watts- $P_{MAX}(Wp)^*$	450	455	460
Power Output Tolerance	0/+5W		
Open Circuit Voltage- $V_{oc}(V)$	45.47	45.64	45.80
Short Circuit Current- $I_{sc}(A)$	12.15	12.25	12.34
Maximum Power Voltage- $V_{MPP}(V)$	38.87	39.01	39.14
Maximum Power Current- $I_{MPP}(A)$	11.58	11.67	11.76
Panel Efficiency(%)	20.30	20.50	20.70

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

Electrical Data (NOCT)

MaximumPower- $P_{MAX}(Wp)^*$	340	344	348
Open Circuit Voltage- $V_{oc}(V)$	46.90	47.15	47.38
Short Circuit Current- $I_{sc}(A)$	9.25	9.29	9.33
Maximum Power Voltage- $V_{MPP}(V)$	39.19	39.44	39.68
Maximum Power Current- $I_{MPP}(A)$	8.68	8.72	8.76

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

Mechanical Data

Panel Dimension(H/W/0)	2094 x 1038 x 35 mm
Weight	25kg
Cell Type	Monocrystalline PERC
Cell Size	166 x 91 mm
Cell Number	132
Glass Type	3.2mm,High Transmission tempering Glass
Encapsulant Type	EVA
Frame Type	Anodized Aluminium Alloy,Silver
Junction Box Protection Class	IP 68
Connector Type	MC4 or MC 4 Compatible
Cables	Cables: 1x4mm ² ,(+):1300mm ,(-):1300mm or Customized Length

Temperature Ratings

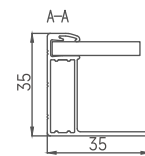
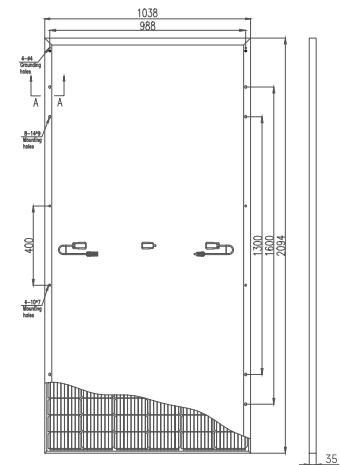
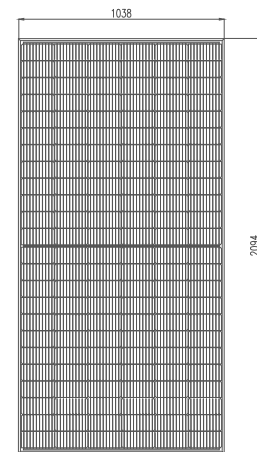
Nominal Operating Cell Temp.(NOCT)	43°C(±2°C)
Temperature Coefficient of P_{MAX}	-0.350%/°C
Temperature Coefficient of V_{oc}	-0.272%/°C
Temperature Coefficient of I_{sc}	-0.044%/°C

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

Packaging Configuration

Modules per box	31 pieces
Modules per 40'container	726 pieces

Dimensions of PV Module(mm)



Maximum Ratings

Operational Temperature	-40~±85 °C
Front/Rear Side Load	5400/2400pa
Max Series Fuse Rating	20A
Max System Voltage	1500V (IEC)
Fire Rating	Class 1(UN19177)

Warranty

Product Workmanship Warranty	25 years
Output Power Warranty	25 years

