Shinson®

Technology Beyond Limits

S430M54HT3BFB S435M54HT3BFB S440M54HT3BFB S445M54HT3BFB S450M54HT3BFB

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.

S.max™

Solar Modules

HJT

450W

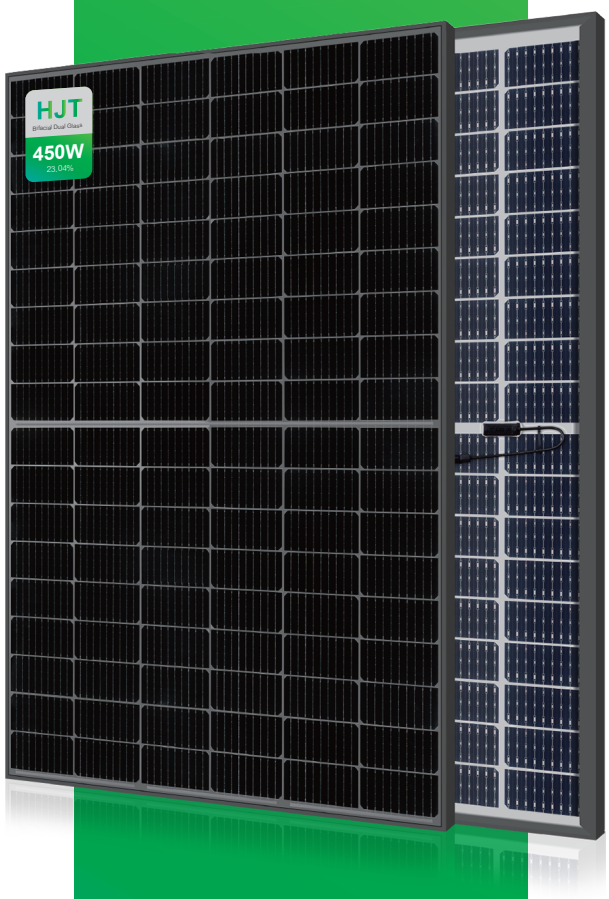
Maximum Output Power

108

Bifacial Cells

10~30%

Extra Backside Gains



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 0.35% annual power degradation .

S.max™

SXXXM54HT3BFB

Electrical Data (STC)

Part Number	S430M54HT3BFB	S435M54HT3BFB	S440M54HT3BFB	S445M54HT3BFB	S450M54HT3BFB
Peak Power Watts-P_{MAX}(Wp)*	430	435	440	445	450
Power Output Tolerance			0/+5W		
Open Circuit Voltage-V_{OC}(V)	41.37	41.64	41.91	42.18	42.44
Short Circuit Current-I_{SC}(A)	12.95	13.00	13.05	13.10	13.15
Maximum Power Voltage-V_{MPP}(V)	34.60	34.86	35.12	35.38	35.63
Maximum Power Current-I_{MPP}(A)	12.43	12.48	12.53	12.58	12.63
Panel Efficiency(%)	22.02	22.28	22.53	22.79	23.04

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

NOCT

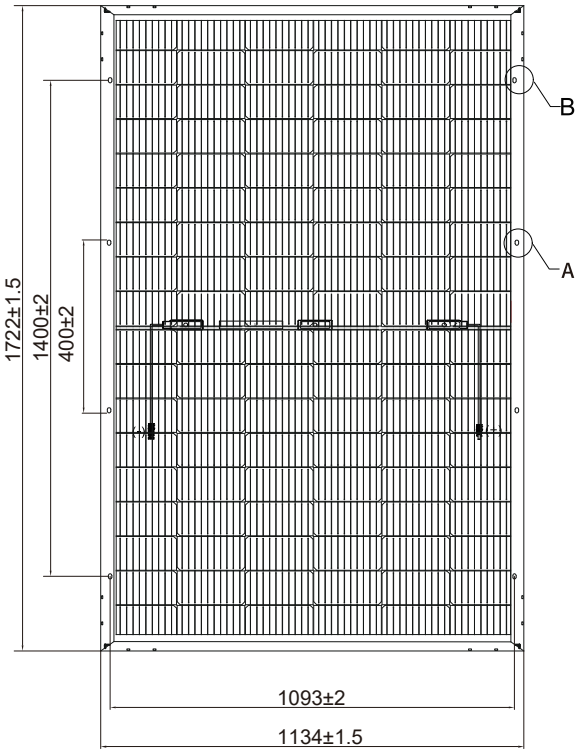
MaximumPower-P_{MAX}(Wp)*	327	331	335	338	342
Open Circuit Voltage-V_{OC}(V)	39.48	39.74	40.00	40.26	40.50
Short Circuit Current-I_{SC}(A)	10.44	10.48	10.52	10.56	10.60
Optimum Operating Voltage-V_{MPP}(V)	32.64	32.91	33.17	33.34	33.60
Optimum Operating Current-I_{MPP}(A)	10.02	10.06	10.10	10.14	10.18

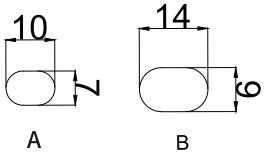
NOCT:Irradiance at 800W/m²,Ambient Temperature 20°C,Wind Speed 1m/s

Mechanical Data

Panel Dimension(H/W/0)	1722x1134x28mm
Weight	19.5kg
Cell Type	HJT Mono-crystalline
Cell Number	108
Glass Thickness	Double glass, 1.6mm
Frame Type	Anodized Aluminium Alloy
Junction Box Protection Class	IP 68
Output Cable	4mm², 1200mm in length, length can be customized / UV resistant
Connectors Type	MC4 original / MC4 compatible

Dimensions of PV Module(mm)





Temperature Ratings

Nominal Operating Cell Temp.(NOCT)	44°C(±2°C)
Temperature Coefficient of P_{MAX}	-0.26%/°C
Temperature Coefficient of V_{OC}	-0.24%/°C
Temperature Coefficient of I_{SC}	+0.04%/°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	25A
Max System Voltage	1500V (IEC)
Fire Rating	Class 1(UNI9177)

Packaging Configuration

Modules per box	39 pieces
Modules per 40'container	1014 pieces

Warranty

Product Workmanship Warranty	30 years
Output Power Warranty	30 years

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Shinson Technology Co.,Ltd
www.shinsontech.com
info@shinsontech.com
Block#201,No.9 Chuangye Road,Changzhou,Jiangsu,PRC