Mysolar

New Energy, Smart Living

Shingled Solar Panel Introduction

Mysolar Manufacturing (Shangiai) Co.,Ltd.

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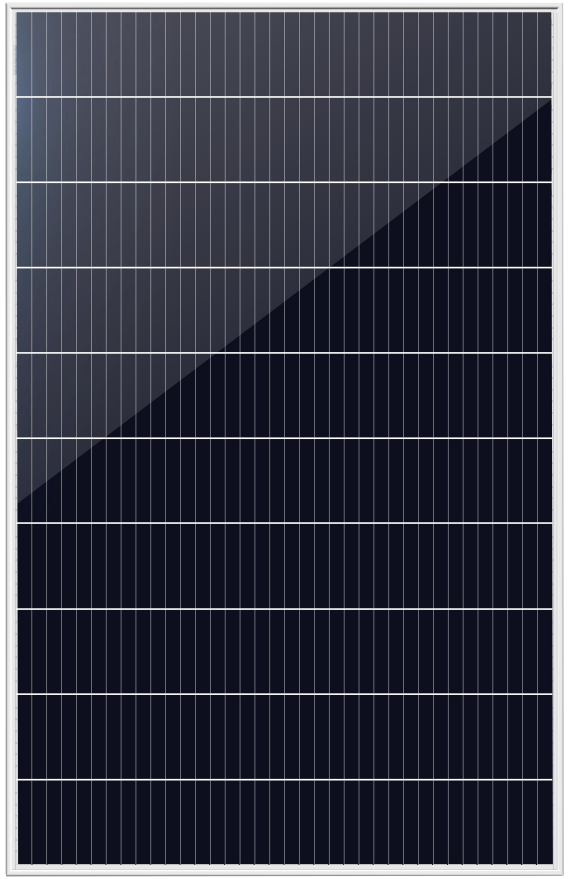
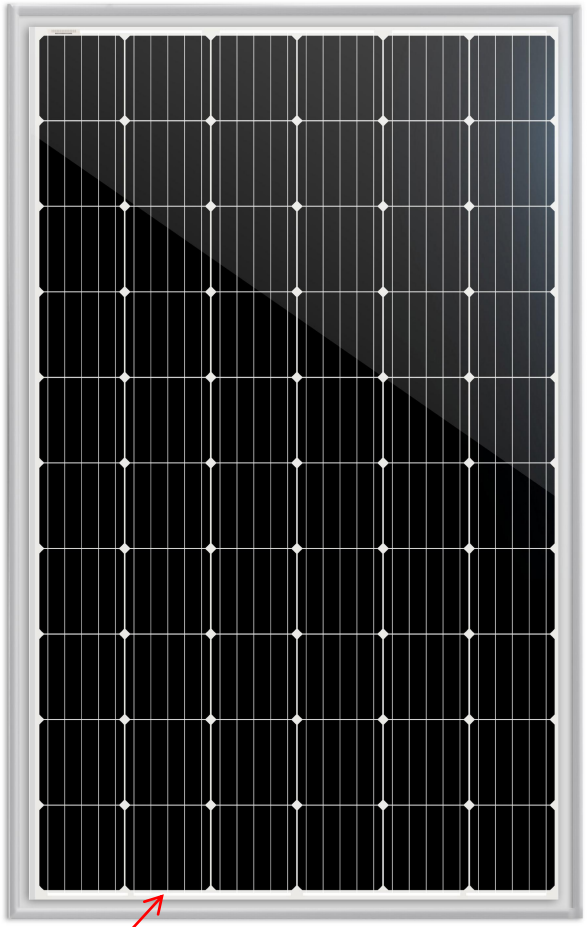
Mysolar Shingled Solar Panel Advantages

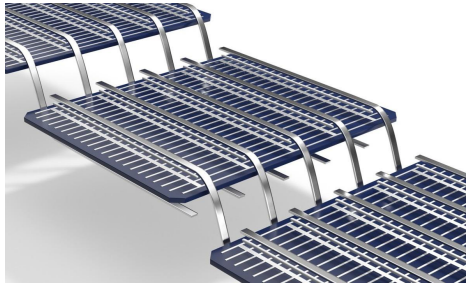


Higher Power output: up to **650W**
Higher Efficiency: up to **21.3%**
Much Lower Bos: saves up to **9.7%**
More electricity gain: up to **1.08%**
Less Micro-crack risks
Better hot-spot resistance
Better PID performance and Lower LID
Low Temperature Production procedure
Longer Warranty with less degradation
Elegant and attractive design for installations
More Flexible and stronger mechanical performance

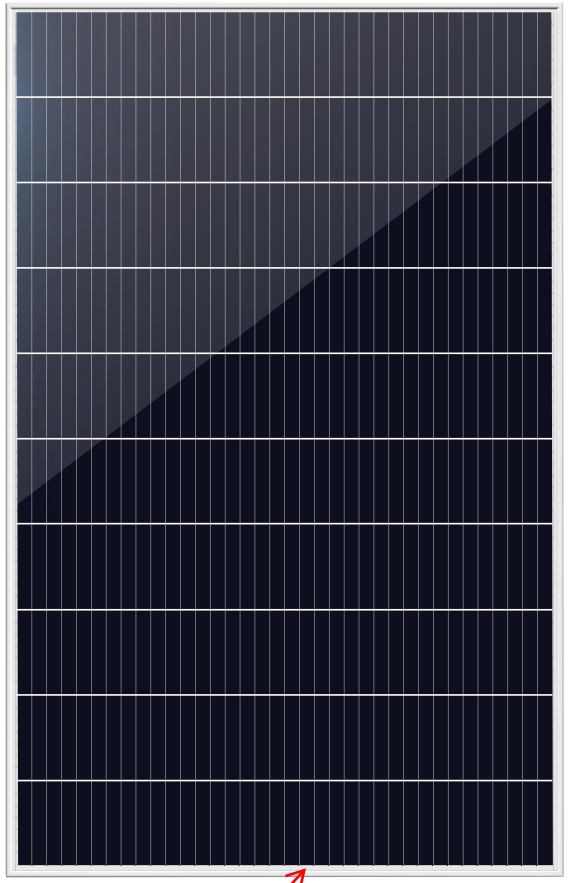
Differences between Shingled panel and conventional solar panels



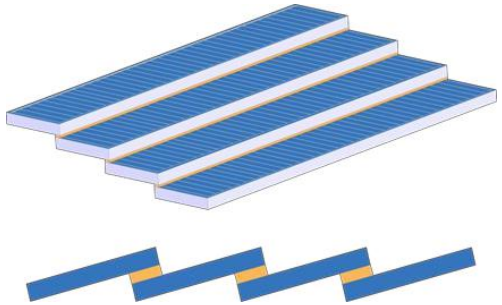
Inactive area losses, string losses and busbar losses



Solar cells are laid out across the panel with spaces, and are electrically connected together by copper busbars (ribbons) by means of high temperature soldering processes. The more copper busbars used the less resistance losses and hence the more efficient the electrical connection.

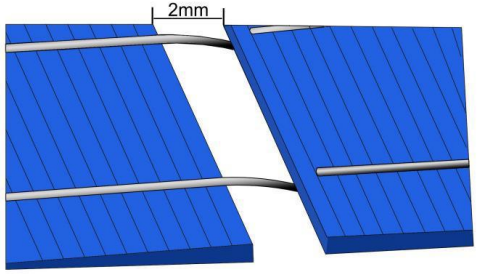


No busbar, no inactive area and parallel substrings



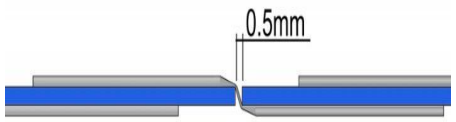
Shingle solar cells are solar cells which are cut into typically 5/6/7/8 strips which can be overlaid, to form the electrical connections. The strips of solar cells are joined together using an electrically conductive adhesive (ECA) that allows for conductivity and flexibility.

Electrically Conductive Adhesive Mothed (ECA) in Low Temperature



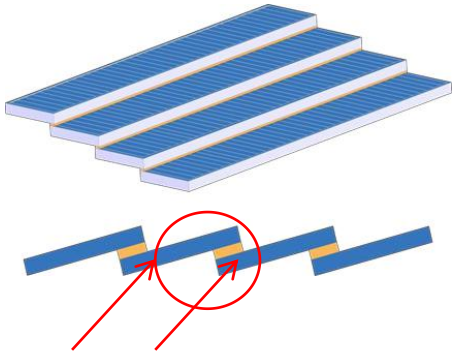
Conventional Panel:

250-300℃ Temperature
Big gap between cells, lower efficiency and possible micro-cracks



Half-cut MBB Panel:

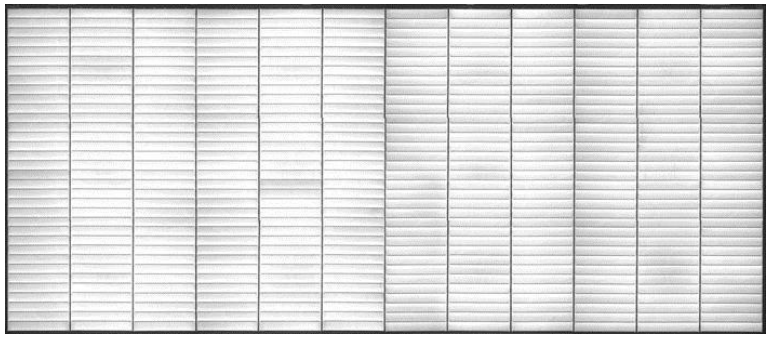
250-300℃ Temperature
Small gap between cells, higher metal thermal effection with possible micro-cracks



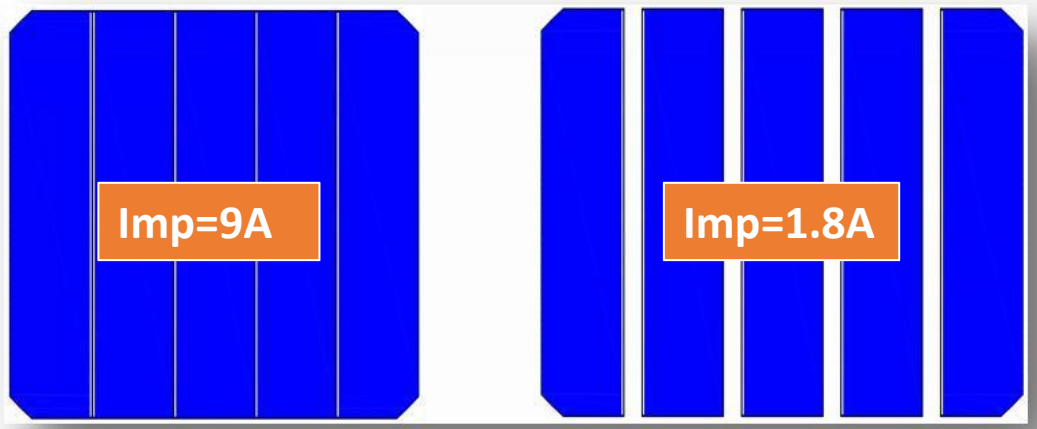
CELL

Mysolar Shingled Panel:

≤150℃ Temperature
Overlaid cells, no gap, no busbar, no metal thermal effection, no micro-crack by high temperature soldering

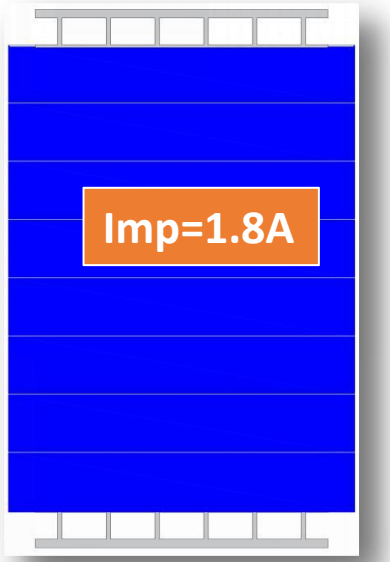


Lower Current in Strings



Conventional Panel:
Full cell Imp=9A

Half-cut MBB Panel:
Cut cell Imp=1.8A



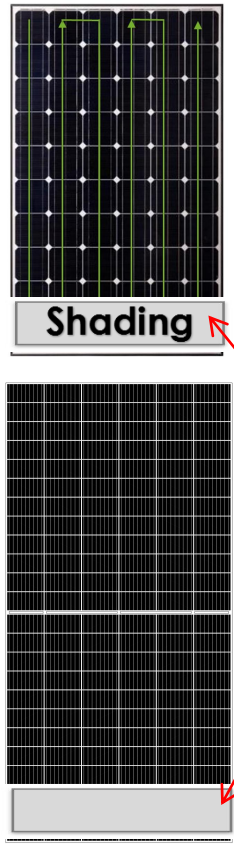
Mysolar Shingled Panel:

Shingled cell connected in series, Imp=1.8A without change, voltage changes, series current decreased from 9A to 1.8A.

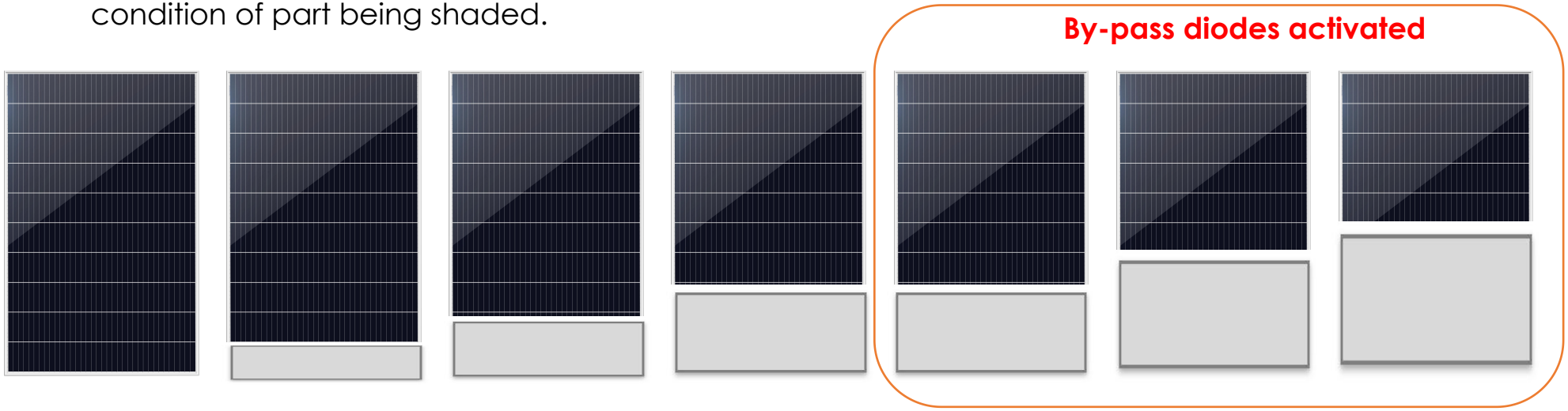
$P_{LOSS}=I^2 \times R$

Current loss decreased dramatically

Less Energy Loss due to Shading



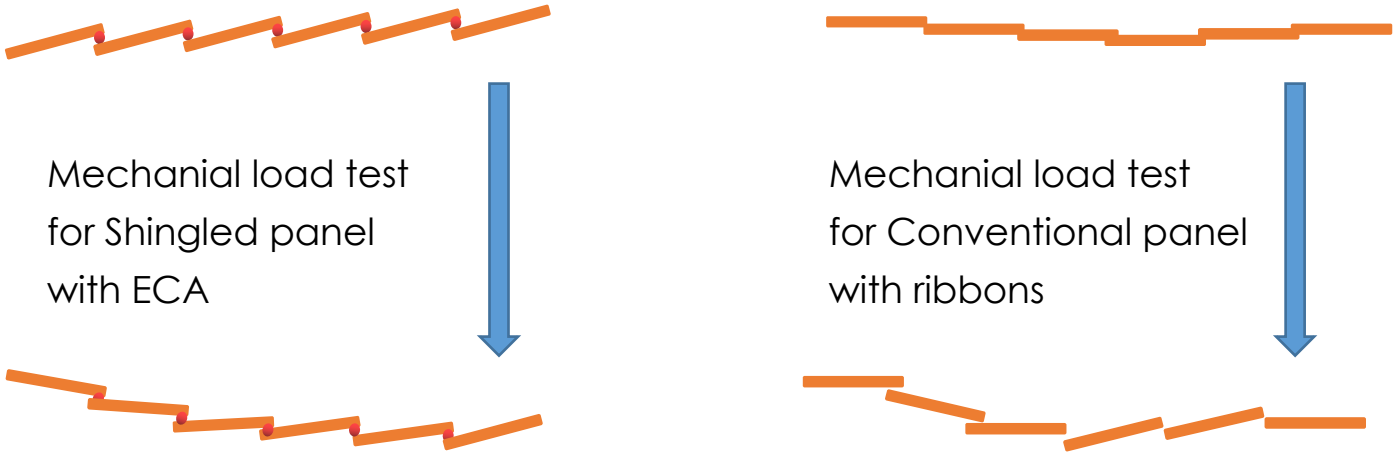
Mysolar Shingled solar panels can be wired in groups and configured in parallel which significantly reduces the losses caused by shading. They have the best performance in condition of part being shaded.



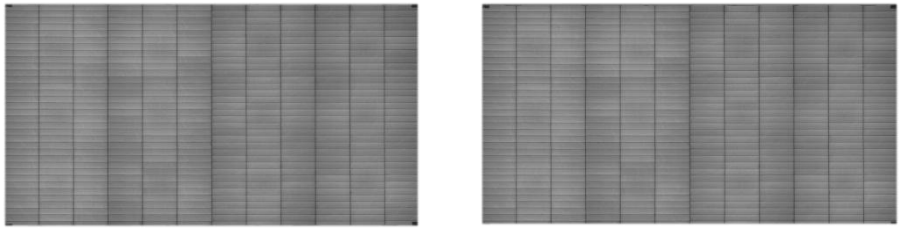
Conventional solar panels have the individual cells wired in series so when a part of the solar panel is shaded it can have a significant effect on the level of power output, with result that panels may stop working.

Better Reliability

Mysolar Shingled solar panels are more resistant to failures due to external forces applied to the surface of panels comparing with Convenitional panels



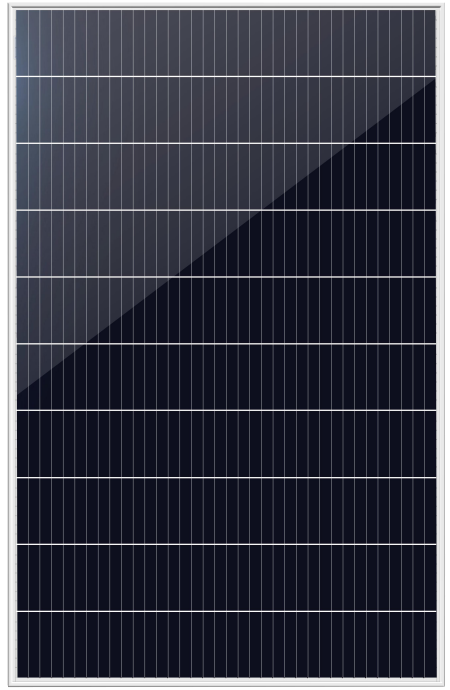
*** Better performance in Mechanical load test**



Before test

After test

Also Mysolar Shingled panels cancelled over 30 meters busbar, so busbar failures are reduced



*** Reduced busbar failures**

More elegant and attractive

Mysolar Shingled panels are suitable for both residential and big commercial solar systems.

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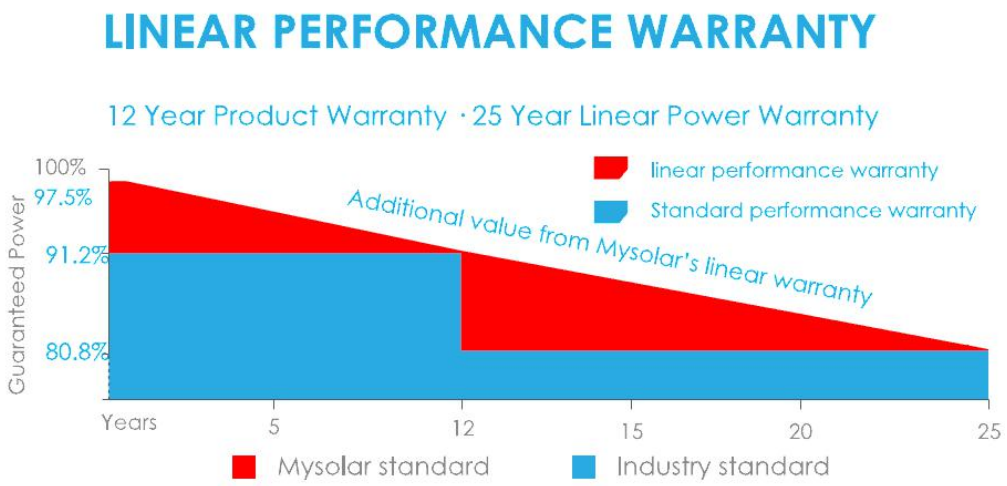
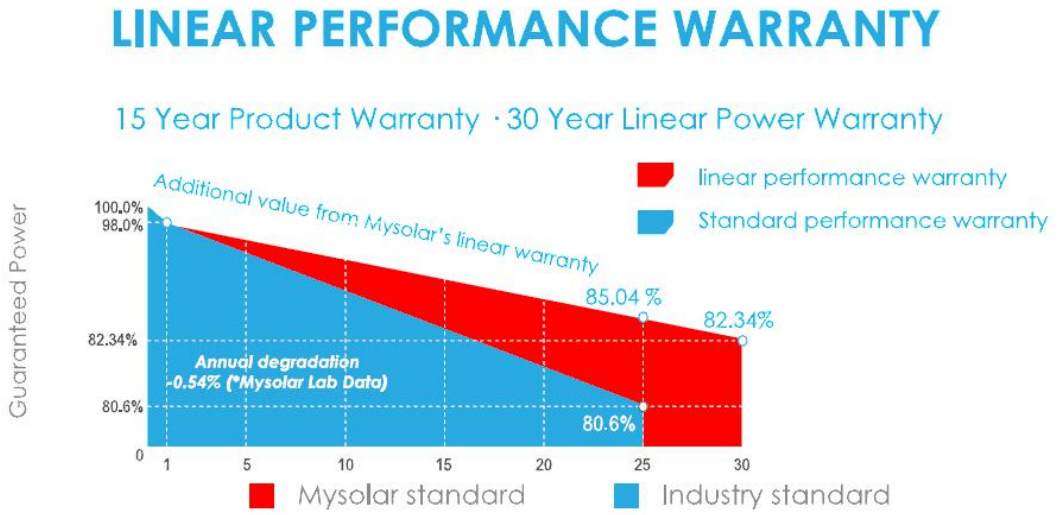
Less Degradation and Longer Warranty





Mysolar General Mono Perc Panels:

12 year Product Warranty

25 year Linear Warranty

12th year 91.2%, 25th year 80.8%

Mysolar Shingled Solar Panels:

15 year Product Warranty

30 year Linear Warranty

15th year 90.98%, 30th year 82.34%

Mamibot

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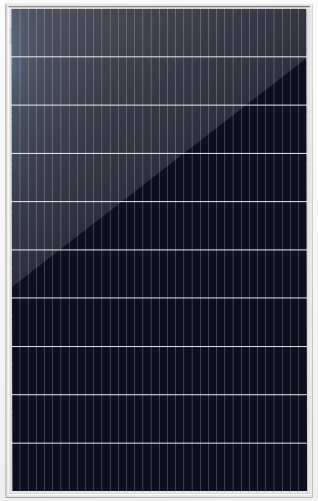
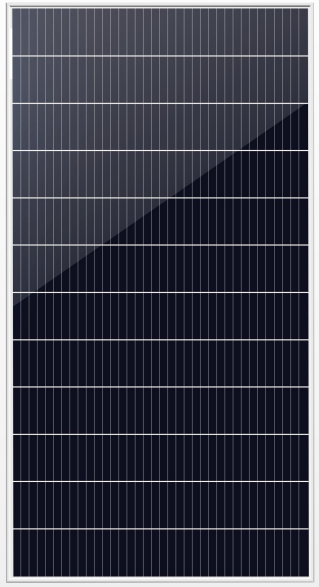
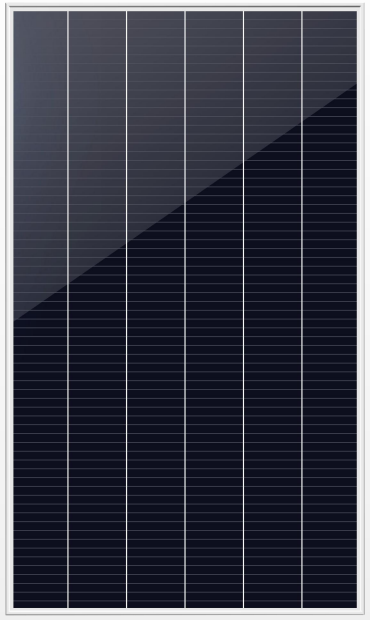
Mysolar Shingled Models



Supo Series
158.75*158.75mm
385-400W
1646*1140*35MM
Efficiency up to 21.30%



Supo Series
158.75*158.75mm
460-475W
1969*1140*35MM
Efficiency up to 21.20%



Gold Series
210*210mm
630-650W
2355*1302*35MM
Efficiency up to 21.30%

Mamibot

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Thank you!