315 WATT MONO PERC SPLIT CELL

THE TWIN POWER SERIES

MORE OUTPUT PER M²

HIGHER EFFICIENCY
19.25% MAXIMUM EFFICIENCY

HIGHER ROI
REDUCED BALANCE OF SYSTEM COST

LOWER POWER LOSS
BETTER PERFORMANCE IN SHADED CONDITIONS

TIER ONE MANUFACTURED

15 YEAR WARRANTY

AUSTRALIAN OWNED AND BACKED

POWERWAVE
INTELLIGENT ENERGY SOLUTIONS

PRODUCT CERTIFICATES

INSURANCE

POWERWAVE ENERGY PTY LTD - MANUFACTURED IN CHINA

Twin Power - A Module Re-Modeled

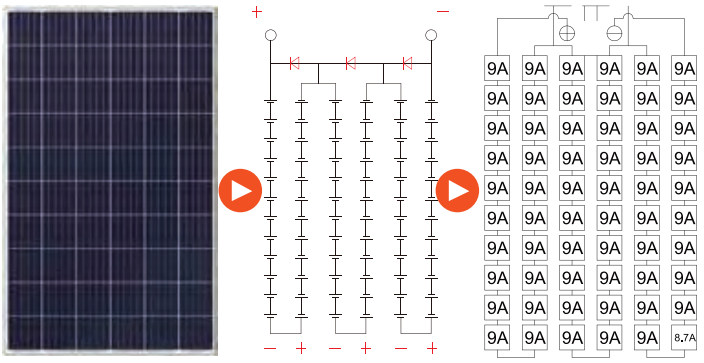
Powerwaves Twin Power Series solar module boasts two identical parts, which are composed of cells that are half the size of ordinary solar cells. By cutting cells into halves, these smaller currents will help reduce “Cell To Module” loss, which means higher output.

In the meantime, the overall space between cells are doubled, and more light will be transferred into power through multiple reflections. Compared to mainstream standard modules, the Twin Power series module has lower current and series resistance which helps minimize mismatch loss, internal power loss, and shadow effect. One cell has EL defect or appearance defect, such as black edge or V sharp. After cutting, one intact half can be reused.

Less Missmatched Loss

Instead of 6 internal strings of cells, the Twin Power series module has 2 x 6 shorter ones. This design effectively deals with the mismatch that happens between cells caused by shading and out of sync performance degradation.

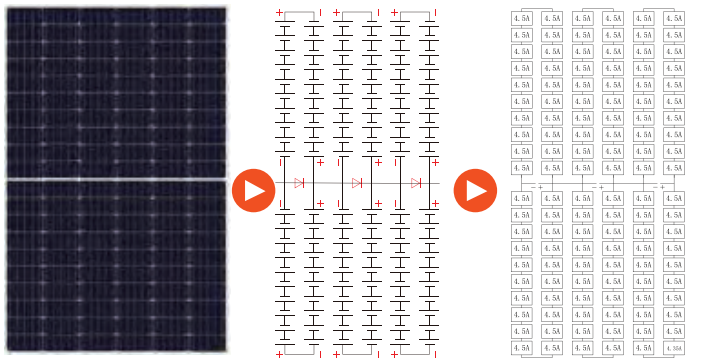
Standard Module /With 6 internal strings of cells



DESIGN SKETCH | CIRCUIT DIAGRAM | ELECTRICAL MISMATCH

Module current output is 8.7A, current mismatch in series is 0.3A

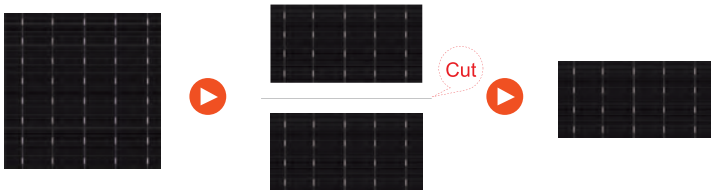
Twin Power Module /With 2x6 internal strings of cells



DESIGN SKETCH | CIRCUIT DIAGRAM | ELECTRICAL MISMATCH

Module current output is 4.5+4.35=8.75A, current mismatch in series is 0.15A

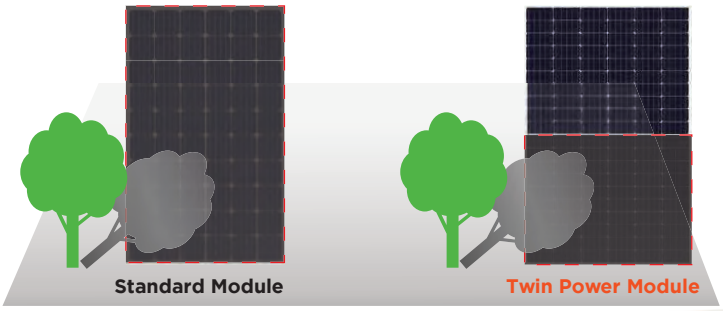
Less Internal Power Loss

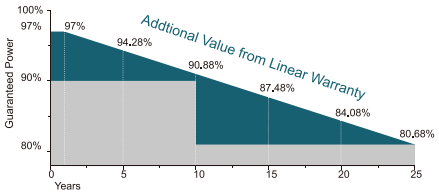


Higher Yield Due to Better Shading Response

The Twin Power series comprises two separated and identical solar cell arrays, which means the ordinary strings of cells are cut into halves, and these shorter strings compose arrays which has separated current paths. When a module is shaded, only one side shaded array’s current will be impacted, while the other array will still be functionally producing power. Under this circumstance, when a module is shaded, the affected working areas of the Twin Power panel will be 50% less.

By cutting solar cell into halves, the internal power loss will be lower and hot spot effect will also be reduced.





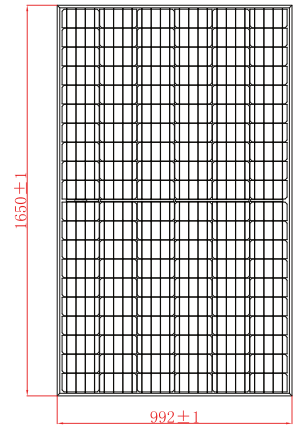
15 YEARS Guarantee on product material and workmanship

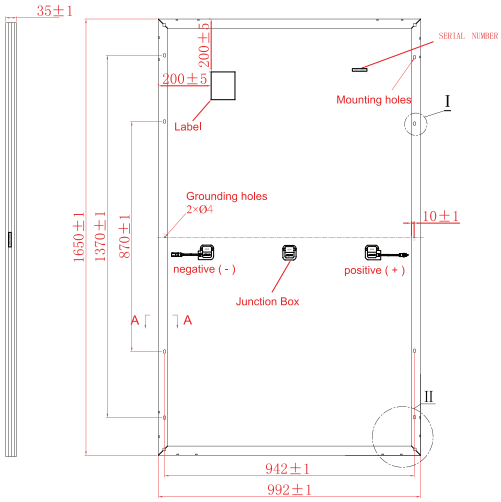
25 YEA linear power output warranty

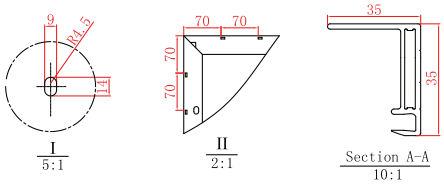
Electrical Characteristics

Module Type	PW-315W-120C-M
	STC
Maximum Power at STC (Pmp)	315
Open Circuit Voltage (Voc)	40.1
Short Circuit Current (Isc)	10.04A
Maximum Power Voltage (Vmp)	33.7
Maximum Power Current (Imp)	9.35
Module Efficiency at STC(ηm)	19.25
Power Tolerance	(0,+4.99)
Power Measurement Tolerance	-3~+3%
Maximum System Voltage	1000 (TÜV)
Maximum Series Fuse Rating	20A

STC: Irradiance 1000 W/m² module temperature 25°C AM=1.5;







Electrical Characteristics

Pmax Temperature Coefficient	-0.40 %/°C
Voc Temperature Coefficient	-0.32 %/°C
Isc Temperature Coefficient	+0.05 %/°C
Operating Temperature	-40～+85 °C
Nominal Operating Cell Temperature (NOCT)	45±2 °C

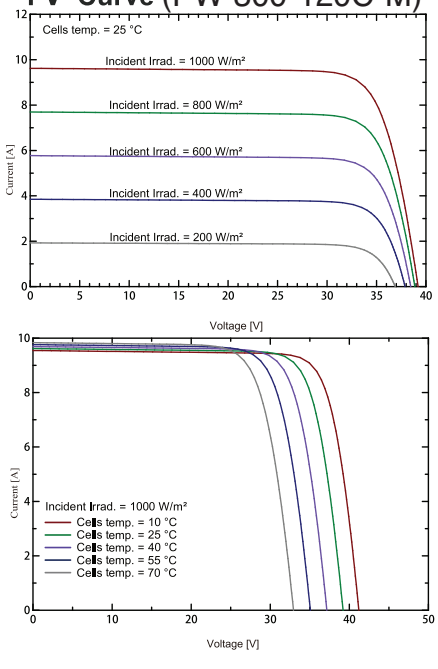
Mechanical Specifications

External Dimensions	1674x 992x 35mm
Weight	18.5kg
Solar Cells	Mono crystalline
Front Glass	3.2 mm tempered glass, low iron
Frame	Anodized aluminium alloy
Junction Box	IP67
Output Cables	4.0 mm²,cable length: 900 mm
Connector	Connector make and model: Zhejiang Jiaming Tianheyuan Photovoltaics Technology Co Ltd PV-JM601
Mechanical Load	5400 Pa

Packing Configuration

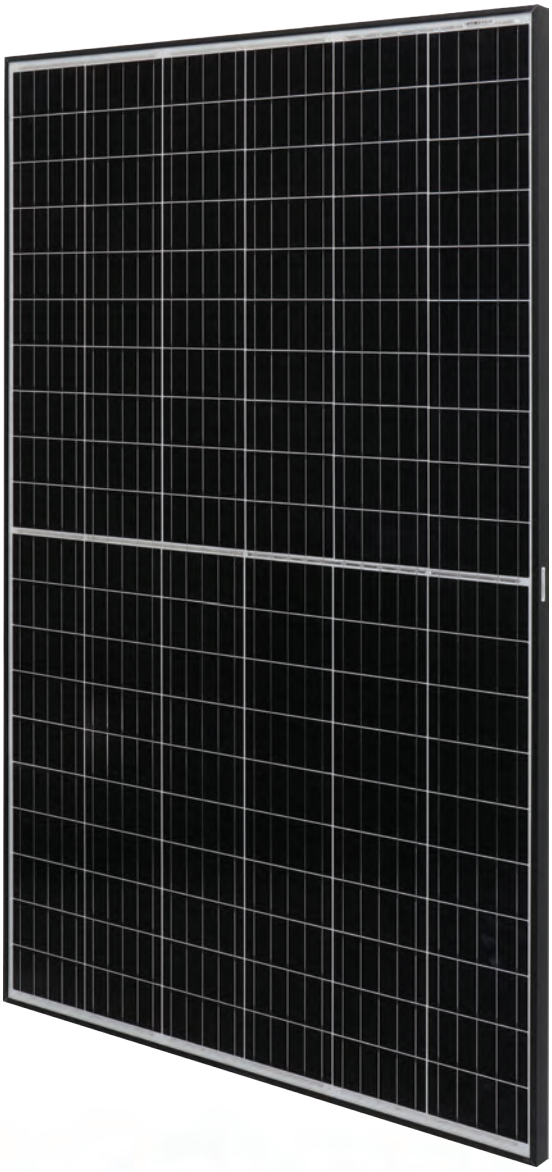
	1650x 992x 35 mm	
Container	20'GP	40'GP
Pieces per Pallet	30	30
Pallets per Container	12	28
Pieces per Container	360	840

I-V Curve (PW-300-120C-M)



Your panel is only as good as the local company standing behind it.

POWERWAVE
INTELLIGENT ENERGY SOLUTIONS



Why Powerwave?

Powerwave is an Australian, privately owned, independent solar brand backed by Australia's largest Online Electrical Wholesaler, Tradezone.

- **Australian Owned & Operated**
- **Over 28 Years in Business**
- **Reliable & Trustworthy**

Tradezone and Powerwave are part of the Kingston Group of Companies. Based on the Gold Coast, the group has been trading for over 25 years and has more than 100 staff as well as an extensive property portfolio. This gives you the peace of mind that local teams and resources are standing by for the full duration of the product's life. Why risk buying a long term asset from a brand that you can't physically speak to or even visit their office in the off chance you need to.

Proudly backed by

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- CONSISTENT, COMPETITIVE, LOW PRICING
- LIVE VISIBILITY OF OUR EXTENSIVE STOCK ON HAND
- DETAILED PRODUCT INFORMATION

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