



ASPEN WOODS
— GROUP INC. —

520W FLEXIBLE SOLAR PANEL

144 HALF CELL MONOCRYSTALLINE
MODULE

520W

Max Power Output

0~+5W

Power Tolerance

16.9lb

7.7KG

Lightweight Panels

Certifications and standards:
IEC 61215, IEC 61730,
Conformity to CE



SUPERIOR PERFORMANCE AND DURABILITY

Exceptional Low-Light Efficiency

Delivering higher power output in weak light conditions, including cloudy weather, early mornings, and sunsets.

Enhanced Temperature Management

Lower operating temperatures and improved temperature coefficients result in higher energy output and prolonged module lifespan.

Rigorously Tested for Extreme Loads

Certified to endure severe wind pressures (up to 2400 Pascals) and snow loads (up to 5400 Pascals), ensuring reliability in all conditions.

Built for Harsh Environments

Engineered for sustainability, even in challenging settings such as deserts, farmlands, and coastal areas.

Reliable Trust in Aspen Woods Group Inc.

Count on our modules for consistent and reliable performance over time.

CUTTING-EDGE TECHNOLOGY FOR SUPERIOR EFFICIENCY

High Module Conversion Efficiency

Achieving efficiency rates up to 21.0%, thanks to advanced cell technology and innovative manufacturing processes.

Optimized Power Output with Current Sorting

Minimizing power loss caused by current mismatch by up to 2% through a state-of-the-art current sorting process.

Innovative MBB Technology and Half-Cell Design

- **MBB Technology:** Reduces the distance between bus bars and finger grid lines, enhancing power output.
- **Half-Cell Design:** Eliminates cell gaps, boosting module efficiency.

Specialized Cell Design for Versatile Installations

Featuring an IP68-rated junction box for superior waterproofing, enabling flexible installations in any orientation while reducing cable stress.

LIGHTWEIGHT AND EASY INSTALLATION

- Weighs only 7.7 kg, making it 70% lighter than conventional glass modules.
- Its glass-free construction significantly reduces weight without compromising performance.
- Features a "Quick-Bonding" installation method that requires no penetration into the installation surface.
- Reduces roof installation time by 40% and eliminates the need for traditional mounting hardware.
- Designed for seamless integration with the installation surface, providing a sleek and modern appearance.

SPECIAL CELL DESIGN

- HD Technology + Half-Cell Design for superior energy generation.
- Built to endure and excel in any environment, delivering consistent performance you can trust.



Choose Aspen Woods Group Inc. for innovative solar solutions that meet and exceed global standards.

10 Year Product Warranty
25 Year Linear Power Warranty



STC	515 - 520W	
Maximum Power at STC (Pmax)	515W	520W
Optimum Operating Voltage (Vmp)	42.12V	42.31V
Optimum Operating Current (Imp)	10.23A	12.24A
Open Circuit Voltage (Voc)	49.30V	49.50V
Closed Circuit Current (Isc)	13.49A	13.56A
Module Efficiency	19.1%	19.3%
Operating Module Temperature	-40°C to +85°C	
Maximum System Voltage	1500 V DC (IEC)	
Maximum Series Fuse Rating	25A	
Application Class	Class A	
Power Tolerance	0~+5W	

STC: Irradiance 1000W/m², Cell temperature 25°C, AM=1.5.

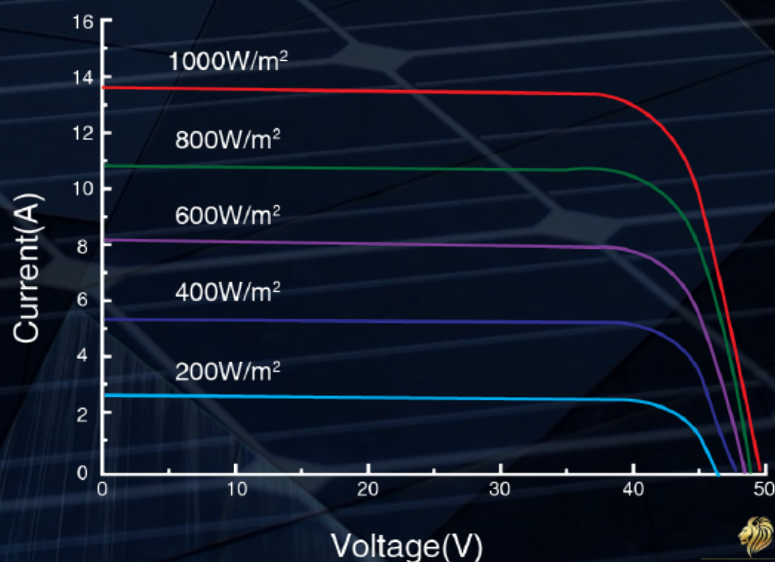
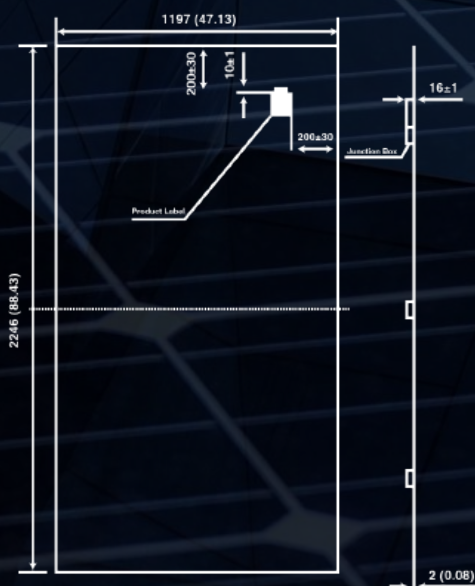
NMOT	515 - 520W	
Maximum Power at NMOT (Pmax)	424.4W	429.2W
Optimum Operating Voltage (Vmp)	41.6V	41.8V
Optimum Operating Current (Imp)	10.21A	10.26A
Open Circuit Voltage (Voc)	49.6V	49.8V
Closed Circuit Current (Isc)	10.76A	10.82A

NMOT: Irradiance 800W/m², Ambient temperature 20°C, AM=1.5, Wind speed 1 m/s.

MECHANICAL CHARACTERISTICS	
Solar Cell	Monocrystalline silicon (182mm half cell)
No. of Cells	144 (12 x 12)
Dimensions	2246x1197x2 mm (88.4 x 47.1 x 0.08 Inches)
Weight	7.7 kgs (16.98 lbs.)
Backsheet	White
Frame	Flameless
Junction Box	IP68 Rated
Output Cable	Photovoltaic technology cable 4.0 mm ² , (±)450 mm
Connectors	MC4 compatible

PACKING CONFIGURATION		
Container	20'GP	40'HC
Module Per Pallet	66	66
Pieces Per Container	264	528

TEMPERATURE CHARACTERISTICS	
Nominal Module Operating Temperature (NMOT)	41 ± 2°C
Temperature Coefficient of Pmax	-0.34%/°C
Temperature Coefficient of Voc	-0.26%/°C
Temperature Coefficient of Isc	0.033%/°C





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