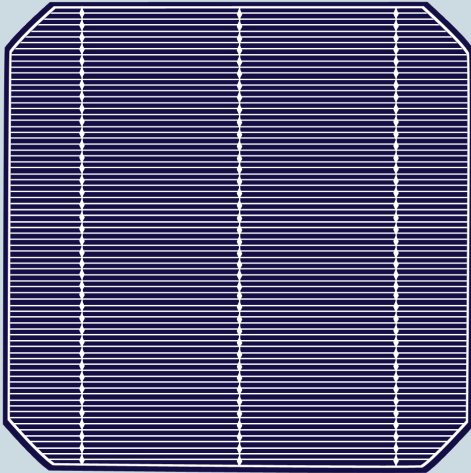




High-quality and high-efficiency
PV yields sensible solar

ARTISUN® SELECT MONOCRYSTALLINE CELLS



ARTISUN® SELECT: 19%+

Suniva's ARTISUN® Select monocrystalline cells feature our latest cost-effective technology to attain average efficiencies of 19% in production. Suniva's innovative, proprietary cell processing techniques are used to achieve significantly higher cell efficiencies while maintaining low-cost. Suniva differentiates from other high-quality, high-efficiency manufacturers through its deep knowledge and experience in cell design and optimization of its cost-effective manufacturing processes.

Leading Scientists and Engineers

Suniva has one of the most skilled teams in the industry, with decades worth of experience in PV research, design and manufacturing. Our industry-renowned R&D scientists and PV engineers have spent their careers understanding and implementing what it takes to extract the maximum performance from each part of the cell to deliver superior power.

Suniva combines intellectual property with collaborative equipment developments to create a proprietary manufacturing process that makes Suniva a leader in the solar industry.

American Innovation

Suniva's headquarters and flagship cell manufacturing factory and module assembly lab are located in metro-Atlanta, Georgia.

- Optimizes proprietary manufacturing technology while maintaining low production costs
- Enables our customers to purchase an affordable, high-quality product that far surpasses the competition
- Provides added value with positive bin tolerance
- Averaging 19% in full scale production

Long-term Commitment to Quality

Suniva's uncompromising commitment to process control drives our reputation for superior quality, cell precision, and the industry's best product performance.

- Rigorous quality management for maximum long-term performance and reliability
- Proprietary texturing process contributes to best in class performance
- Custom Manufacturing Execution System (MES) traceability for all cells and in-line process metrology
- Establishes Suniva as the American technology leader for solar cell processing

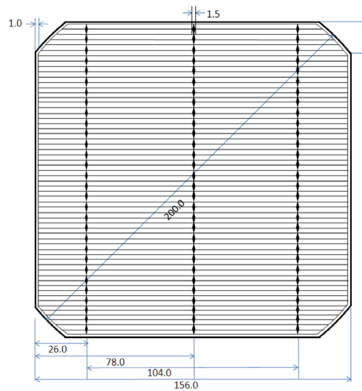
OUR PRODUCTS:

Monocrystalline Modules
OPTIMUS SERIES 60 cell
OPTIMUS SERIES 72 cell

Multicrystalline Modules
MVP SERIES 60 cell
MVP SERIES 72 cell

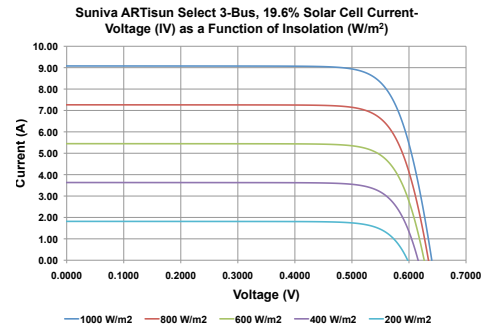
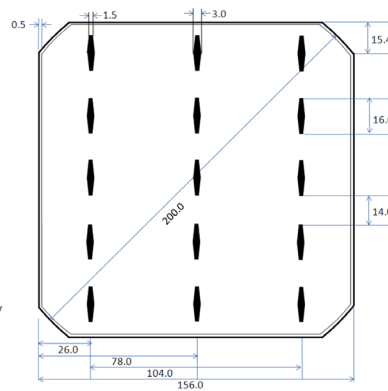
Monocrystalline Cells: 19%+ efficiency

Balance of Systems Solutions (BOSS)
Racking, Inverters, Batteries, Charge
Controllers and EV Chargers



Scaled drawing (front of wafer)

Dimensions may vary by ±0.5



TYPICAL CELL ELECTRICAL PROPERTIES¹

ARTisun Select - Bin (Pos. Tol.)	18.6%	18.8%	19.0%	19.2%	19.4%
Efficiency (%)	18.60-18.80	18.80-19.00	19.00-19.20	19.20-19.40	19.40-19.60
Power Pmp (W)	4.44-4.49	4.49-4.54	4.54-4.59	4.59-4.64	4.64-4.68
Max Power Current Imp (A)	8.33	8.38	8.44	8.48	8.51
Short Circuit Current Isc (A)	8.90	8.93	8.96	9.00	9.04
Max. Power Voltage Vmp (V)	0.536	0.538	0.541	0.544	0.547
Open Circuit Voltage Voc (V)	0.638	0.640	0.642	0.644	0.646

¹ All electrical parameters valid under Standard Testing Conditions (STC): Intensity: 1000 W/m²; Spectrum: AM1.5 Global; Temperature: 25°

CELL TEMPERATURE COEFFICIENTS

Voltage	$\beta(V_{oc})$	- 2.0mV/°C
Current	$\alpha(I_{sc})$	+4.2mA/°C
Power	$\gamma(P_{max})$	- 0.39%/°C

WAFER & CELL SPECIFICATIONS & GEOMETRY

Crystal Growth Technique	Czochralski
Crystal Type	Monocrystalline
Crystal Orientation	<100>
Dopant Species	Boron, P Type
Cell Shape	Pseudo-square
Cell Size	156.0 ± 0.5mm cut from 200 diameter ± 0.5 mm
Cell Area	239 cm ²
Cell Thickness	200 ± 40 microns
Cell Configuration	Front and Rear screen print; Aluminum Back Surface Field (BSF)
Cell Visual Appearance	Tight color band; uniform dark blue (Silicon Nitride AR coating with fine pyramidal texture)

Suniva® reserves the right to change the data at any time.

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Please recycle.