ENGINEERING EXCELLENCE
- Built exclusively with Suniva’s premium ARTisun Star cells, providing one of the highest power outputs per square meter at an affordable price
- The leading US-born, US-operated crystalline silicon cell and module manufacturer, spun out of Georgia Tech’s University Center of Excellence in Photovoltaics; one of only two such research centers in the U.S.
- Suniva’s state-of-the-art manufacturing and module lab facilities in Norcross, Georgia and Saginaw, Michigan feature the most advanced equipment and technology.

QUALITY & RELIABILITY
- Suniva Optimus modules are manufactured and warranted to our specifications assuring consistent high performance and high quality.
- Rigorous in-house quality management tests beyond standard UL and IEC standards
- Performance longevity with advanced polymer backsheets
- UL1703 listed Type 1 PV Module
- Passed the most stringent salt spray tests based on IEC 61701
- PAN files are independently validated

SUNIVA OPTIMUS® SERIES
MONOCRYSTALLINE SOLAR MODULES

OPT SERIES: OPT 60 CELL MODULES (BLACK FRAME)

Optimus® modules are known for their superior quality and long-term reliability. These high-powered modules consist of Suniva’s premium ARTisun® Star cell technology, designed and manufactured in the U.S.A. using our pioneering manufacturing processes. Suniva’s high power-density Optimus modules provide excellent performance and value.

FEATURES
- Utilizes our premier American-made cell technology, ARTisun® Star
- Superior performance and reliability
- Module families ranging from 290-300W
- Hard anodized marine grade aluminum frame
- BAA and TAA compliant
- Qualifies for Ex-Im Financing
- 1000Vdc UL and IEC
- 25 year linear power warranty; 10 year product warranty

CERTIFICATIONS

www.suniva.com

2016 GEORGIA Manufacturer of the Year
OPTIMUS SERIES: OPT 60 CELL MODULES

ELECTRICAL DATA (NOMINAL)
The rated power may only vary by -0/+5 W and all other electrical parameters by ± 5%

<table>
<thead>
<tr>
<th>Model Number</th>
<th>OPT290-60-4-1B0</th>
<th>OPT295-60-4-1B0</th>
<th>OPT300-60-4-1B0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Classification (Pmax)</td>
<td>290 W</td>
<td>295 W</td>
<td>300 W</td>
</tr>
<tr>
<td>Module Efficiency (%)</td>
<td>17.8%</td>
<td>18.1%</td>
<td>18.4%</td>
</tr>
<tr>
<td>Voltage at Max. Power Point (Vmp)</td>
<td>31.7 V</td>
<td>31.8 V</td>
<td>32.6 V</td>
</tr>
<tr>
<td>Current at Max. Power Point (Imp)</td>
<td>9.15 A</td>
<td>9.28 A</td>
<td>9.21 A</td>
</tr>
<tr>
<td>Open Circuit Voltage (Voc)</td>
<td>39.8 V</td>
<td>40.0 V</td>
<td>39.9 V</td>
</tr>
<tr>
<td>Short Circuit Current (Isc)</td>
<td>9.55 A</td>
<td>9.62 A</td>
<td>9.65 A</td>
</tr>
</tbody>
</table>

The electrical data apply to standard test conditions (STC): Irradiance of 1000 W/m² with AM 1.5 spectra at 25°C.

CHARACTERISTIC DATA

Type of Solar Cell          High-efficiency ARTisun Star monocrystalline cells
Frame                      Anodized aluminum alloy
Glass                      Tempered (low-iron), anti-reflective coating
Junction Box               IP67 rated; 3 internal bypass diodes
Cable & Connectors         12 AWG (4 mm²) PV Wire with Amphenol H4 connectors; cable length 1000 mm

MECHANICALS

Cells / Module             60 (6 x 10)
Module Dimensions          1640 x 992 mm (64.6 x 39.1 in)
Module Thickness (Depth)   35 mm (1.37 in)
Approximate Weight         18.2 kg (40.1 lbs)

TEMPERATURE COEFFICIENTS

Voltage, Voc (%/°C)        -0.34
Current, Isc (%/°C)         +0.06
Power, Pmax (%/°C)          -0.40
NOCT Avg (+/- 2 °C)        45.0

LIMITS

Max. System Voltage        1000Vdc UL and IEC
Max Series Fuse Rating     20 Amps
Operating Module Temperature -40°C to +85°C (-40°F to +185°F)
Storm Resistance/Static Load Tested to IEC 61215 for loads of 5400Pa positive and 2400Pa negative loads; hail and wind resistant

Suniva® reserves the right to change the data at any time. View manual at suniva.com.

Please read installation manual before installing or working with module.

<table>
<thead>
<tr>
<th>Product</th>
<th>Modules per pallet</th>
<th>Pallets per 53 modules</th>
<th>Total modules</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPT - 60 cell</td>
<td>25</td>
<td>36</td>
<td>900</td>
</tr>
</tbody>
</table>