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

FEATURES
- Utilizes our premier American-made cell technology, ARTisun Select®
- Superior performance and reliability; enhanced stress tests conducted at Fraunhofer ISE
- Module families ranging from 270-285W
- Marine grade aluminum frame with durable black coating
- Passed most stringent salt spray tests
- Certified PID-free by PV Evolution Labs (PVEL)
- Made in North America
- Qualifies for Ex-Im Financing
- 1000V UL
- 25 year linear power warranty; 10 year product warranty

CERTIFICATIONS

Suniva Optimus modules are manufactured and warranted to our specifications assuring consistent high performance and high quality.

QUALITY & RELIABILITY
- Rigorous in-house quality management tests beyond standard UL and IEC standards
- Performance longevity with advanced polymer backsheet
- UL1703 listed Type 2 PV module
- Passed the most stringent salt spray tests based on IEC 61701
- Passed enhanced stress tests based on IEC 61215 conducted at Fraunhofer ISE²
- PAN files are independently validated

ENGINEERING EXCELLENCE
- Built exclusively with Suniva’s premium ARTisun Select cells, providing one of the highest power outputs per square meter at an affordable price
- The leading US-born, US-owned 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 feature the most advanced equipment and technology

Suniva Optimus modules are manufactured and warranted to our specifications assuring consistent high performance and high quality.
### OPTIMUS SERIES: OPT 60 CELL MODULES

**ELECTRICAL DATA (NOMINAL)**

The rated power may only vary by +/- 2.5Wp and all other electrical parameters by +/- 5%.

<table>
<thead>
<tr>
<th>Model Number</th>
<th>OPT270-60-4-1B0</th>
<th>OPT275-60-4-1B0</th>
<th>OPT280-60-4-1B0</th>
<th>OPT285-60-4-1B0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Classification (Pmax)</td>
<td>270 W</td>
<td>275 W</td>
<td>280 W</td>
<td>285 W</td>
</tr>
<tr>
<td>Module Efficiency (%)</td>
<td>16.63%</td>
<td>16.95%</td>
<td>17.26%</td>
<td>17.57%</td>
</tr>
<tr>
<td>Voltage at Max. Power Point (Vmp)</td>
<td>31.00 V</td>
<td>31.50 V</td>
<td>31.90 V</td>
<td>31.80 V</td>
</tr>
<tr>
<td>Current at Max. Power Point (Imp)</td>
<td>8.70 A</td>
<td>8.74 A</td>
<td>8.78 A</td>
<td>8.96 A</td>
</tr>
<tr>
<td>Open Circuit Voltage (Voc)</td>
<td>38.40 V</td>
<td>38.60 V</td>
<td>38.80 V</td>
<td>38.80 V</td>
</tr>
<tr>
<td>Short Circuit Current (Isc)</td>
<td>9.18 A</td>
<td>9.28 A</td>
<td>9.31 A</td>
<td>9.48 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 Select cells, 3 and 5 busbar options available

**Frame**
- Marine grade aluminum frame with durable back coating

**Glass**
- Tempered (low-iron), anti-reflective coating

**Junction Box**
- NEMA IP67 rated; 3 internal bypass diodes

**Cable & Connectors**
- 12 AWG (4 mm²) PV Wire cable with multiple connector options available; cable length approx. 1000 mm

### MECHANICALS

**Cells / Module**
- 60 (6 x 10)

**Module Dimensions**
- 1652 x 982 mm (65.04 x 38.66 in.)

**Module Thickness (Depth)**
- 40 mm (1.57 in.)

**Approximate Weight**
- 17.9 +/- 0.25 kg. (39.5 +/- 0.5 lb.)

### TEMPERATURE COEFFICIENTS

- **Voltage**
  - β, Voc (%/°C): -0.335

- **Current**
  - α, Isc (%/°C): +0.047

- **Power**
  - γ, Pmax (%/°C): -0.420

- **NOCT Avg**
  - (+/- 2 °C): 46.0

### LIMITS

- **Max. System Voltage**: 1000 VDC for IEC, 1000 VDC for UL
- **Max Series Fuse Rating**: 15 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 5400 Pa (113 psf); hail and wind resistant

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

*UV 90 kWh, TC 400, DH 2000. *Tests were conducted on module type OPT 60 silver frame.

Please read installation manual before installing or working with module.

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### PERFORMANCE

**Linear Performance Warranty**

- **PERFORMANCE %**
  - **STANDARD WARRANTY**
  - **YIELD**
  - **YIELD**
  - **YIELD**
  - **YIELD**

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Please read installation manual before installing or working with module.