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® 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

- Contains premium ARTisun Select cell technology - over 19%
- Extensive materials testing and certifications safeguard reliability
- Marine grade aluminum frame with hard anodized coating
- Buy America-compliant upon request
- Qualifies for U.S. EXIM financing
- System and design services available
- Industry leading linear warranty: 10 year warranty on workmanship and materials; 25 year linear performance warranty delivering 80% power at STC

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
- Passed the most stringent salt spray tests based on IEC 61701
- Passed enhanced stress tests based on IEC 61215 conducted at Fraunhofer ISE
- Certified PID free by PV Evolution Labs (PVEL)
- PAN files are independently validated
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>OPT 265-60-4-1B0</th>
<th>OPT 270-60-4-1B0</th>
<th>OPT 275-60-4-1B0</th>
<th>OPT 280-60-4-1B0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Class. (Pmax)</td>
<td>265 W</td>
<td>270 W</td>
<td>275 W</td>
<td>280 W</td>
</tr>
<tr>
<td>Module Efficiency (%)</td>
<td>16.33%</td>
<td>16.63%</td>
<td>16.95%</td>
<td>17.26%</td>
</tr>
<tr>
<td>Voltage at Max. Power Point (Vmp)</td>
<td>30.70 V</td>
<td>31.00 V</td>
<td>31.50 V</td>
<td>31.90 V</td>
</tr>
<tr>
<td>Current at Max. Power Point (Imp)</td>
<td>8.64 A</td>
<td>8.70 A</td>
<td>8.74 A</td>
<td>8.78 A</td>
</tr>
<tr>
<td>Open Circuit Voltage (Voc)</td>
<td>38.30 V</td>
<td>38.40 V</td>
<td>38.60 V</td>
<td>38.80 V</td>
</tr>
<tr>
<td>Short Circuit Current (Isc)</td>
<td>9.12 A</td>
<td>9.18 A</td>
<td>9.28 A</td>
<td>9.31 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 of 156 x 156 mm (6 in.)
Frame | Black anodized aluminum alloy
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 | B, Voc (%/°C) | -0.335
Current | a, 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.