From the world leading PV research lab comes sensible solar.



# SUNIVA OPTIMUS® SERIES MONOCRYSTALLINE SOLAR MODULES



# OPTXXX-60-4-1B0 (60 cell module)

The Optimus® modules consist of Suniva's latest technology: ARTisun® Select. These superior monocrystalline cells are designed and manufactured in the U.S.A. using our proprietary low-cost processing techniques. Engineered with our pioneering ion implantation technology, high power-density Optimus modules provide excellent value, performance and reliability.

Certifications 1











#### **Engineering Excellence**

- Built exclusively with Suniva's highest-efficiency ARTisun Select cells, providing one of the highest power outputs per square meter at an affordable manufacturing cost
- Suniva's state-of-the art manufacturing facility features the most advanced equipment and technology
- Suniva is a U.S. –based company spun out from the Georgia Tech University Center of Excellence in Photovoltaics (one of only two such research centers in the U.S.)

#### **Features**

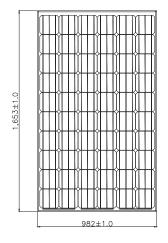
- Module conversion efficiency up to 16+%
- Industry leading linear warranty (10 year warranty on workmanship and materials; 25 year linear performance warranty delivering 80% power at STC)
- Frame consists of marine grade aluminum with anodized coating
- Buy American compliant
- Qualifies for U.S. EXIM financing

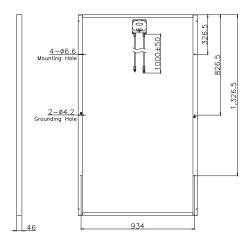
#### Quality & Reliability

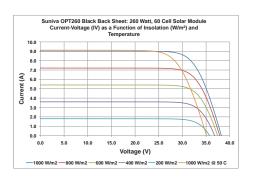
Suniva Optimus modules are manufactured and warranted to our specifications assuring consistent high performance and quality worldwide. Our specifications include:

- Rigorous quality management
- Performance longevity with advanced polymer backsheet
- Electrical tests and visual inspections
- Produced in an ISO 9001: 2008 certified facility
- System and design services available; ask about our Balance of System Solutions (BOSS)

# SUNIVA OPTIMUS® SERIES MONOCRYSTALLINE SOLAR MODULES







<sup>&</sup>lt;sup>2</sup> Tolerances ± 1 mm Hole Tolerances Vary Dimensions in mm

### **ELECTRICAL DATA (NOMINAL)**

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

Power Classification	Pmax (W)	250	255	260
Model Number	OPT	250-60-4-1B0	255-60-4-1B0	260-60-4-1B0
Voltage at Max. Power Point	Vmp (V)	30.00	30.20	30.50
Current at Max. Power Point	Imp (A)	8.34	8.45	8.52
Open Circuit Voltage	Voc (V)	37.80	37.80	38.30
Short Circuit Current	Isc (A)	8.90	8.96	9.01

The rated power may only vary by  $\pm$  2.5Wp and all other electrical parameters by  $\pm$  5%

### **DIMENSIONS AND WEIGHT**

Cells / Module	60 (6x10)	
Module Dimensions	1653 x 982 mm (65.08 x 38.66 in.)	
Module Thickness (Depth)	46 mm (1.81 in.)	
Approximate Weight	18.69 kg (41.22 lbs.)	

# **CHARACTERISTIC DATA**

Type of Solar Cell	High-efficiency Suniva® ARTisun® Select monocrystalline cells of 156 x 156 mm (6 in.)
Frame	Black anodized aluminum alloy
Glass	Tempered (low-iron); anti-reflective coating (EN 12150); salt spray and acid spray resistance tested (EN1096-21)
Junction Box	Tyco; NEMA IP65 rated; IEC & UL listed; 3 internal bypass diodes
Cable & Connectors	4 mm <sup>2</sup> cable with Tyco SolarLok connectors; cable length approximately 1000 mm
Hardware Included	Grounding screws: (2) #10 12.7 mm (32 x 0.5 in.)
	Stainless steel flat washers: (4) 5 x 10 x 1 mm (0.2 in. ID x 0.39 in. OD x 0.03 in.)

#### **TEMPERATURE COEFFICIENTS**

Voltago	ß, Voc (%/°C)	-0.335
Voltage	15, VOC (%)/ C)	-0.555
Current	α, Isc (%/°C)	+0.047
Power	γ, Pmax (%/°C)	-0.450
NOCT Avg	(+/- 2 °C)	46.0

## LIMITS

Max. System Voltage	1000 VDC for IEC (600 VDC for UL)
Operating Module Temperature	-40°C to +90°C
Storm Resistance/Static Load <sup>1</sup>	Tested to IEC 61215 for loads up to 5400 Pa; hail and wind resistant

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

<sup>&</sup>lt;sup>2</sup>View manual at suniva.com/ourproducts.php



<sup>&</sup>lt;sup>1</sup>Some certifications may be pending.