

SUNIVA OPTIMUS® SERIES MONOCRYSTALLINE SOLAR MODULES

OPT SERIES: OPT 60 CELL MODULES (BLACK FRAME)

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-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 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 backsheet
- UL1703 listed Type 2 PV module
- Passed the most stringent salt spray tests based on IEC 61701
- Passed enhanced stress tests¹ based on IEC 61215 conducted at Fraunhofer ISE²
- PAN files are independently validated



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. and North America 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 275-285W
- ☀ Marine grade aluminum frame with hard anodization or powder coating
- ☀ 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



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%

Model Number	OPT275-60-4-1B0	OPT280-60-4-1B0	OPT285-60-4-1B0
Power Classification (Pmax)	275 W	280 W	285 W
Module Efficiency (%)	16.73%	17.04%	17.34%
Voltage at Max. Power Point (Vmp)	32.0 V	32.1 V	32.2 V
Current at Max. Power Point (Imp)	8.59 A	8.72 A	8.84 A
Open Circuit Voltage (Voc)	39.1 V	39.2 V	39.2 V
Short Circuit Current (Isc)	9.34 A	9.47 A	9.61 A

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	Anodized or powder coated aluminum alloy
Glass	Tempered (low-iron), anti-reflective coating
Junction Box	NEMA IP67 rated; 3 internal bypass diodes
Cable & Connectors	12 AWG (4 mm ²) PV Wire cable with multiple connector options available; cable length approx. 1000 mm

MECHANICALS

Cells / Module	60 (6 x 10)
Module Dimensions	1660 x 990 mm (65.35 x 38.98 in.)
Module Thickness (Depth)	35 mm (1.37 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.

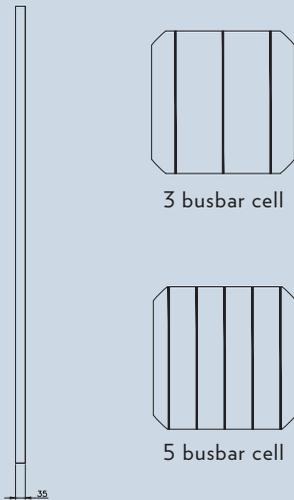
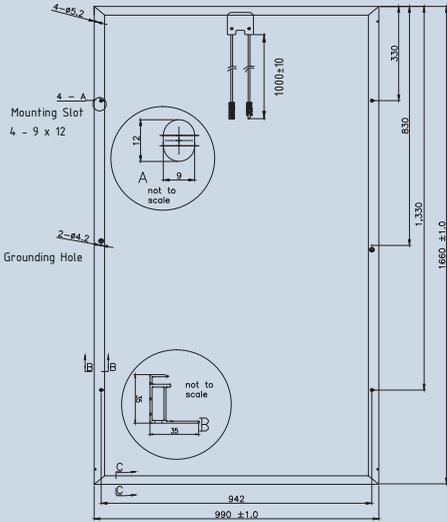
¹UV 90 kWh, TC 400, DH 2000. ²Tests were conducted on module type OPT 60 silver frame.

Please read installation manual before installing or working with module.

Product	Modules per pallet	Pallets per 53' truck	Total modules
OPT - 60 cell (silver and black)	25	36	900

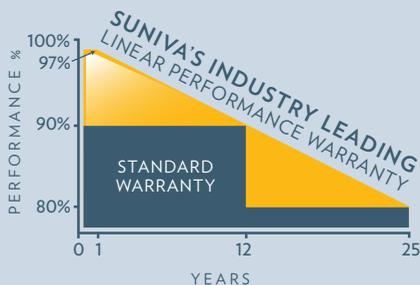
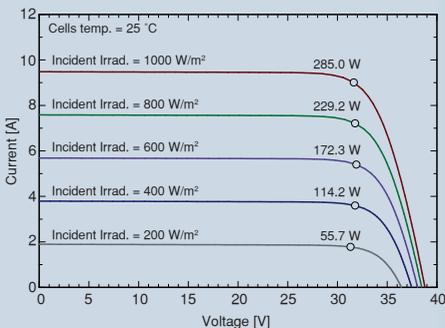
HEADQUARTERS
5765 Peachtree Industrial Blvd.,
Norcross, Georgia 30092 USA
Tel: +1 404 477 2700
www.suniva.com


The Brilliance of Solar Made Sensible®



PV module: Suniva, OPT285-60-4-100

Current-Voltage (IV) as a
Function of Isolation (W/m²) and Temperature



 PLEASE RECYCLE

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