

# **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





# SUNIVA OPTIMUS® SERIES MONOCRYSTALLINE SOLAR MODULES

**OPT SERIES: OPT 72 CELL MODULES (SILVER FRAME)** 

Optimus® modules are known for their superior quality and long-term reliability. These high-powered modules consist of Suniva's premium ARTisun® 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**





- Superior performance and reliability; enhanced stress tests conducted at Fraunhofer ISE
- Module families ranging from 325-340W
- Positive only power tolerance
- Marine grade aluminum frame with hard anodized coating
- Certified PID-free by PV Evolution Labs (PVEL)
- 🌕 BAA and TAA compliant
- Qualifies for Ex-Im Financing
- 1000V UL
- 25 year linear power warranty;10 year product warranty

# **CERTIFICATIONS**



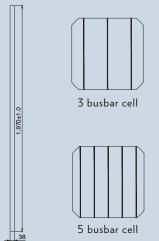






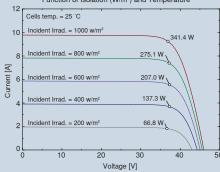
www.suniva.com

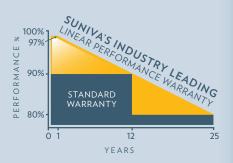
# 8-3.5x12 Drain Hole 4-7x12 Mounting Slot 2-04.2 Grounding Hole 958 990±1.0



# PV module: Suniva, OPT340-72-4-100

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







SEPTEMBER 9, 2016 (REV. 8) [SAMD\_0051] © Suniva, Inc., 2016

# **OPTIMUS SERIES: OPT 72 CELL MODULES**

## **ELECTRICAL DATA (NOMINAL)**

The rated power may only vary by -0/+10W and all other electrical parameters by  $\pm\,5\%$ 

Module Type	OPT325- 72-4-100	OPT330- 72-4-100	OPT335- 72-4-100	OPT340- 72-4-100
Power Classification (Pmax)	325 W	330 W	335 W	340 W
Module Efficiency (%)	16.66%	16.92%	17.18%	17.43%
Voltage at Max. Power Point (Vmp)	37.5 V	37.6 V	37.7 V	37.8 V
Current at Max. Power Point (Imp)	8.67 A	8.78 A	8.89 A	8.99 A
Open Circuit Voltage (Voc)	45.8 V	45.9 V	45.9 V	46.0 V
Short Circuit Current (Isc)	9.42 A	9.54 A	9.66 A	9.78 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	Silver anodized aluminum alloy
Glass	Tempered (low-iron), anti-reflective coating
Junction Box	NEMA IP67 rated; 3 internal diodes
Cable & Connectors	12 AWG (4 mm²) PV Wire with multiple connector options available; cable length 1200 mm +/-10mm including connector

### **MECHANICALS**

Cells / Module	72 (6 x 12)
Module Dimensions	1970 x 990 mm (77.6 x 39 in.)
Module Thickness (Depth)	38 mm (1.5 in.)
Approximate Weight	23 kg (50.7 lbs.)

# **TEMPERATURE COEFFICIENTS**

Voltage	ß, Voc (%/°С)	-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 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. <sup>1</sup>UV 90 kWh, TC 400, DH 2000. <sup>2</sup>Tests were conducted on module type OPT 60 silver frame.

Please read installation manual before installing or working with module.

Product		Modules per full 53 ft. truck load, double stacked
OPT - 72 cell	22	660

# **HEADQUARTERS**

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



