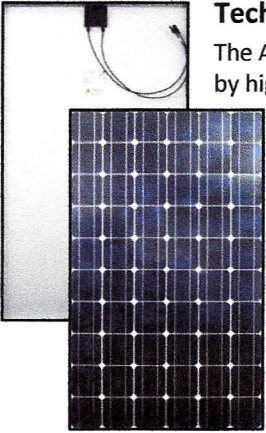




## Suniva® ART245-60-2 Monocrystalline Solar Modules



### Technology

The ART245-60-2 crystalline solar modules are powered by high-efficiency monocrystalline cells manufactured by Suniva® Inc., in the USA. The modules provide excellent value and performance for operation of both DC loads and in an inverter-equipped system for AC Loads. The rated output and the efficient design of these modules, combined with their large surface area, are ideally suited for high power applications, such as Grid Interactive Systems.

The module is designed for easy interconnection to achieve voltage and current configurations for grid-connected systems as well as stand-alone systems.

### Module Design

High-efficiency 6-inch (156mm) monocrystalline solar cells form the crux of the module. These 156-mm pseudosquare cells offer a homogeneous appearance, optimal use of the area, and are known for high-energy yields. Due to its construction of glass/EVA and a multi-layer composite of PET film, the module is light in weight in addition to protecting the module/cells against harsh environmental conditions. A torsion-resistant module frame made of anodized aluminum guarantees high mechanical strength, making the module resistant to snow and extreme wind and hail.

### Quality

Suniva® modules are manufactured and warranted through Suniva's assembly partners, who have years of expertise in module manufacturing and built-in quality management systems in compliance with the International Quality System Standard ISO 9001-2000. Each module goes through quality assurance, visual inspections and mechanical and electrical tests, as per leading international testing and quality standards.

### Certifications

Suniva® modules are certified in accordance with both UL and IEC standards for PV modules. Certified by Underwriters Laboratory to UL1703, and by TÜV Rheinland, Germany to the new, stringent CEI/IEC 61215: 2005 standard. These modules have also passed the more severe IEC 61215 testing for static loads of 5400 pascals, withstanding gusts of wind up to 204 mph. ART245-60-2 modules also conform to the requirements of IEC 61730-2, Safety Class II for 1000 VDC applications, EWG guideline 89/932 (CE), and are approved for use in Florida with FSEC certification #SU09-NT90-0309.



ART245-60-2

### Features

1. Modules are assembled using high-quality components; they contain 90+% U.S.-made content and are sourced from the leading suppliers.
2. State-of-the-art, automated manufacturing facilities guarantee consistent high quality and electrical performance.
3. Positive power tolerance (-0Wp / + 4.99Wp) ensures extra power to the customer.
4. Certified by Underwriters Laboratory to UL1703; by TÜV Rheinland to CEI/IEC 61215: 2005 standard, and IEC 61730-2, Safety Class II for 1000 VDC, EWG guideline 89/932 (CE).
5. Industry-leading, 25-year guarantee: 5 years with 100% product guarantee; 12-year guarantee at 90% rated performance and 25-year guarantee at 80% rated performance.





## Suniva® ART245-60-2 Monocrystalline Solar Modules

### Electrical Data (nominal)

The electrical data apply to standard test conditions (STC):

Irradiance at the module level of 1000 W/m<sup>2</sup> with spectrum AM 1.5G and a cell temperature of 25°C.

Power Classification (max.)	Pmax (W)	230	235	240
Voltage at max. power point	Vmp(V)	29.42	29.48	30.10
Current at max. power point	Imp(A)	7.89	8.00	8.02
Open-circuit voltage	Voc(V)	37.38	37.50	37.62
Short circuit current	Isc(A)	8.50	8.52	8.55

The rated power may only vary by -0Wp/+4.99 and all other electrical parameters by ± 5%

### Dimensions and Weights

	ART245-60-2
Cells / Module	60
Module Dimensions (mm)	1660 x 990
Module Thickness (mm)	42
Approximate Weight (Kg)	19.00

### Characteristic Data

Type of Solar Cell	High-efficiency Suniva® 2busbar monocrystalline cells of 156x156mm
Frame	Silver anodized aluminum alloy
Glass	3.2mm tempered
Connection	IP65 junction box with 4 terminals
Cable Entry	Prepared for cable glands (M 12)
Connections (Optional)	4mm <sup>2</sup> - Lapp-cable with Tyco connectors

### Module Temperature Coefficients

Voltage	β, Voc (%/°C)	- 0.335
Current	α, Isc (%/°C)	+0.0481
Power	γ, Pmax (%/°C)	- 0.51

### Limits

Max. System Voltage	1000 VDC
Operating Module Temperature	-40°C to +90°C
Storm Resistance	Tested to IEC 61215 for wind loads of 5400 Pa (204 mph)

