

## Five Key Features

- 1 Guaranteed quality: 5 year product warranty, 25 year performance warranty \*
- 2 Predictable output: Tight power tolerance of -0 W, +5 W
- 3 Innovative solutions: Anti-reflecting coating for high sunlight absorption
- 4 Robust design: Module certified to withstand high snow loads, up to 5400 Pa (113 psf) \*\*
- 5 Highly Bankable: Proven field performance with strong company financials

\* Please refer to Hanwha SolarOne Product Warranty for details.  
 \*\* Please refer to Hanwha SolarOne module Installation Guide.

### Quality and Environmental Certificates

- ISO 9001 quality standards and ISO 14001 environmental standards
- OHSAS 18001 occupational health and safety standards
- IEC 61215 and IEC 61730 Class A certifications
- Conformity to CE



### About Hanwha SolarOne

Hanwha SolarOne is a vertically integrated manufacturer of photovoltaic modules designed to meet the needs of the global energy consumer.

- High reliability, guaranteed quality, and excellent cost-efficiency due to vertically integrated production and control of the supply chain;
- Optimization of product performance and manufacturing processes through a strong commitment to research and development;
- Global presence throughout Europe, North America, and Asia, offering regional technical and sales support.

## Electrical Characteristics

### Electrical Characteristics at Standard Test Conditions (STC)

Power Class	270 W	275 W	280 W	285 W	290 W	295 W
Maximum Power ( $P_{max}$ )	270 W	275 W	280 W	285 W	290 W	295 W
Open Circuit Voltage ( $V_{oc}$ )	44.0 V	44.1 V	44.3 V	44.5 V	44.7 V	44.9 V
Short Circuit Current ( $I_{sc}$ )	8.20 A	8.35 A	8.40 A	8.45 A	8.50 A	8.55 A
Voltage at Maximum Power ( $V_{mpp}$ )	36.0 V	36.1 V	36.1 V	36.2 V	36.3 V	36.4 V
Current at Maximum Power ( $I_{mpp}$ )	7.50 A	7.62 A	7.76 A	7.87 A	7.99 A	8.11 A
Module Efficiency	13.7 %	14.0 %	14.3 %	14.5 %	14.7 %	15.0 %

$P_{max}$ ,  $V_{oc}$ ,  $I_{sc}$ ,  $V_{mpp}$ , and  $I_{mpp}$  tested at STC defined as irradiance of 1000 W/m<sup>2</sup> at AM 1.5 solar spectrum and temperature 25 ± 2 °C.  
Electrical Characteristics: Measurement tolerance of ± 3 %.

### Electrical Characteristics at Normal Operating Cell Temperature (NOCT)

Power Class	270 W	275 W	280 W	285 W	290 W	295 W
Maximum Power ( $P_{max}$ )	197 W	200 W	204 W	208 W	211 W	215 W
Open Circuit Voltage ( $V_{oc}$ )	40.5 V	40.6 V	40.8 V	40.9 V	41.1 V	41.3 V
Short Circuit Current ( $I_{sc}$ )	6.63 A	6.76 A	6.80 A	6.84 A	6.88 A	6.92 A
Voltage at Maximum Power ( $V_{mpp}$ )	32.7 V	32.8 V	32.9 V	33.0 V	33.1 V	33.2 V
Current at Maximum Power ( $I_{mpp}$ )	6.00 A	6.10 A	6.21 A	6.30 A	6.39 A	6.49 A
Module Efficiency	12.5 %	12.7 %	13.0 %	13.2 %	13.4 %	13.7 %

$P_{max}$ ,  $V_{oc}$ ,  $I_{sc}$ ,  $V_{mpp}$ , and  $I_{mpp}$  tested at NOCT defined as irradiance of 800 W/m<sup>2</sup>; wind speed 1 m/s.  
Electrical Characteristics: Measurement tolerance of ± 3 %.

### Temperature Characteristics

Normal Operating Cell Temperature (NOCT)	45 °C ± 3 °C
Temperature Coefficients of P	- 0.45 % / °C
Temperature Coefficients of V	- 0.32 % / °C
Temperature Coefficients of I	+ 0.04 % / °C

### Maximum Ratings

Maximum System Voltage	600 V (UL)
Series Fuse Rating	15 A
Maximum Reverse Current	Series fuse rating multiplied by 1.35

## Mechanical Characteristics

Dimensions	1966 mm × 1000 mm × 50 mm (77.4 in × 39.37 in × 1.97 in)
Weight	26 kg (57.2 lbs)
Frame	Aluminum alloy
Front	Tempered glass
Encapsulant	EVA
Back Cover	Composite sheet
Cell Technology	Polycrystalline
Cell Size	156 mm x 156 mm (6 in × 6 in)
Number of Cells (Pieces)	72 (6 × 12)
Junction Box	Protection class IP65 with bypass-diode
Output Cables	Solar cable: 4 mm <sup>2</sup> ; length 900 mm (35.4 in)

## System Design

Operating Temperature	- 40 °F to 185 °F
Hail Safety Impact Velocity	25 mm at 23 m/s
Fire Safety Classification (IEC 61730)	Class C
Static Load Wind / Snow	2400 Pa / 5400 Pa

## Packaging and Storage

Storage Temperature	- 40 °F to 185 °F
Packaging Configuration	20 pieces per pallet
Loading Capacity (40 ft. HQ Container)	440 pieces

### Nomenclature

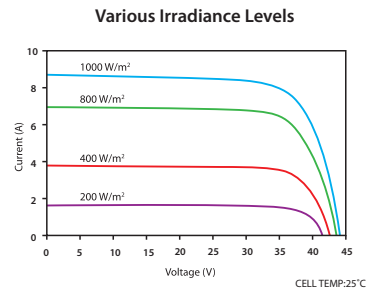
Full product name:

SF260-36-PxxxL

xxx represents the power class

### Performance at Low Irradiance:

The typical relative change in module efficiency at an irradiance of 200 W/m<sup>2</sup> in relation to 1000 W/m<sup>2</sup> (both at 25 °C and AM 1.5 spectrum) is less than 5 %.



### Basic Design

