HIGH-POWER PV MODULES

First Solar Series 6™ photovoltaic (PV) module sets a new industry benchmark for reliable energy production, optimized design and environmental performance. Series 6 modules are optimized for every stage of your application, significantly reducing balance of system, shipping, and operating costs.

MORE ENERGY PER MODULE

• More watts per connection and per lift (420+ watts) than 72-cell silicon modules
• With superior temperature coefficient, spectral response and shading behavior, Series 6 modules generate up to 8% more energy per watt than conventional crystalline silicon solar modules
• Anti-reflective coated glass enhances energy production

INNOVATIVE MODULE DESIGN

• Under-mount frame allows for simple and fast installation
• SpeedSlots™ combine the robustness of bottom mounting with the speed of top clamping while utilizing fewer fasteners
• Dual junction box optimizes module-to-module connections
• Under-mount frame provides the cleaning and snow-shedding benefits of a frameless module, protects edges against breakage and enables horizontal stacking

PROVEN LONG-TERM RELIABILITY

• Manufactured using methods and process adapted from Series 4 modules – the most tested solar modules in the industry
• Independently tested and certified for reliable performance that exceeds IEC standards in high temperature, high humidity, extreme desert and coastal applications

BEST ENVIRONMENTAL PROFILE

• Fastest energy payback time and smallest carbon and water footprint in the industry
• Global PV collection and recycling services available through First Solar or customer-selected third-party

INDUSTRY-LEADING MODULE WARRANTY

98% Warranty Start Point
0.5% Warranted Annual Degradation Rate

• 25-Year Linear Performance Warranty
• 10-Year Limited Product Warranty
### Model Types and Ratings at Standard Test Conditions (1000W/m², AM 1.5, 25°C)

<table>
<thead>
<tr>
<th>NOMINAL VALUES</th>
<th>FS-6420</th>
<th>FS-6425</th>
<th>FS-6430</th>
<th>FS-6435</th>
<th>FS-6440</th>
<th>FS-6445</th>
<th>FS-6450</th>
<th>FS-6455A</th>
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<tbody>
<tr>
<td>Nominal Power (W)</td>
<td>P_MAX</td>
<td>P_MAX</td>
<td>P_MAX</td>
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<td>(W) at 25°C</td>
<td>420.0</td>
<td>425.0</td>
<td>430.0</td>
<td>435.0</td>
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<td>Efficiency (%)</td>
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<td>E</td>
<td>E</td>
<td>E</td>
<td>E</td>
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<tr>
<td>(%)</td>
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<td>18.0</td>
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<tr>
<td>Voltage at P_MAX (V)</td>
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<td>(V)</td>
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<td>Current at P_MAX (A)</td>
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<td>(A)</td>
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<td>(V)</td>
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### Temperature Characteristics

- **Module Operating Temperature Range** (°C) -40 to +85
- **Temperature Coefficient of P_MAX** \( T_p(P_{MAX}) \) -0.32%/°C (Temperature Range: 25°C to 75°C)
- **Temperature Coefficient of V_OC** \( T_v(V_{OC}) \) -0.28%/°C
- **Temperature Coefficient of I_SC** \( T_i(I_{SC}) \) +0.04%/°C

### Mechanical Description

- **Length** 2009mm
- **Width** 1232mm
- **Thickness** 49mm
- **Area** 2.47m²
- **Module Weight** 36kg
- **Leadwire** 2.5mm², 720mm (+) & Bulkhead (-)
- **Connectors** MC4-EVO 2 or alternate
- **Bypass Diode** N/A
- **Cell Type** Thin film CdTe semiconductor, up to 264 cells
- **Frame Material** Anodized Aluminum
- **Front Glass** 2.8mm heat strengthened
- **Series 6AM™ includes anti-reflective coating
- **Back Glass** 2.2mm heat strengthened
- **Encapsulation** Laminate material with edge seal
- **Frame to Glass Adhesive** Silicone
- **Load Rating** 2400Pa

### Packaging Information

- **Modules Per Pallet** 26
- **Pallet Dimensions (L x W x H)** 2200 x 1300 x 1150mm (88 x 51 x 45in)
- **Pallet Weight** 1051kg
- **Pallets per 40' Container** 18