ELPS Technology Highlights

- **Delivers More Electricity**
  Delivers up to 6.3% more electricity than conventional solar modules.

- **Highest Efficiency Module (P-type)**
  The metal wrap through (MWT) design increases light absorption up to 3% for more power output than conventional cells and modules.

- **Best Power Tolerance**
  Industry leading plus-only power tolerance gives you up to 5 watts extra.

- **Excellent Low Light Performance**
  Excellent performance in low light conditions (mornings, evenings, and cloudy days).

- **Reduces Balance of System Cost**
  Get more watts in less space for savings on ground and rooftop, installation time, mounting systems and cables.

- **Backed By Our New 10/25 Linear Power Warranty**
  Plus our added 25 year insurance coverage.

- **Added Value From Warranty**
  10 year product warranty on materials and workmanship.
  25 year linear power output warranty.

ELPS Cell Technology

Delivers **highest mono cell (P-type) efficiency up to 19.5%**

Our new breakthrough ELPS technology enables solar cells to collect more light resulting in 19.5% cell efficiency for monocrystalline cells and 18% efficiency for polycrystalline cells. These new cells feature a metal wrap through (MWT) design which moves the front busbars to the back of the cells allowing for 3% more light absorption per cell. As a result these modules deliver 6.3% more electricity than conventional solar modules.

ELPS solar modules, powered by 60 (156 x 156mm) high efficiency ELPS solar cells, offer the PV industry one of the highest module efficiencies and return on solar investment.

ELPS CS6P-265MM monocrystalline modules have a module efficiency up to 16.47%.

Applications

- On-grid residential rooftop
- On-grid commercial/industrial rooftop
- Solar power stations
- Other on-grid applications

Quality Certificates

- IEC 61215, IEC61730, UL 1703, CE
- ISO9001: 2008: Standards for quality management systems
- ISO/TS16949:2009: The automotive quality management system

Environmental Certificates

- ISO14001:2004: Standards for Environmental management systems
- QC080000 HSPM: The Certification for Hazardous Substances Regulations
I-V Curves (ELPS Module)

<table>
<thead>
<tr>
<th>STC</th>
<th>ELPS-255MM</th>
<th>ELPS-260MM</th>
<th>ELPS-265MM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Maximum Power (Pmax)</td>
<td>255W</td>
<td>260W</td>
<td>265W</td>
</tr>
<tr>
<td>Optimum Operating Voltage (Vmp)</td>
<td>30.5V</td>
<td>30.7V</td>
<td>30.9V</td>
</tr>
<tr>
<td>Optimum Operating Current (Imp)</td>
<td>8.35A</td>
<td>8.48A</td>
<td>8.61A</td>
</tr>
<tr>
<td>Open Circuit Voltage (Voc)</td>
<td>37.7V</td>
<td>37.6V</td>
<td>37.9V</td>
</tr>
<tr>
<td>Short Circuit Current (Isc)</td>
<td>8.67A</td>
<td>8.99A</td>
<td>9.11A</td>
</tr>
<tr>
<td>Module Efficiency</td>
<td>15.85%</td>
<td>16.16%</td>
<td>16.47%</td>
</tr>
</tbody>
</table>

Operating Temperature: -40°C to +85°C

Maximum System Voltage: 1000V (IEC) / 600V (UL)

Maximum Series Fuse Rating: 15A

Application Classification: Class A

Power Tolerance: 0 ~ +5W

Under Standard Test Conditions (STC) of irradiance of 1000W/m², spectrum AM 1.5 and cell temperature of 25°C.

Electrical Data

Mechanical Data

- Cell Type: ELPS Mono Cell 156 x 156mm
- Cell Arrangement: 60 (6 x 10)
- Dimensions: 1638 x 982 x 40mm (64.5 x 38.7 x 1.57in)
- Weight: 20kg (44.1 lbs)
- Front Cover: 3.2mm Tempered glass
- Frame Material: Anodized aluminum alloy
- J-BOX: IP65, 3 diodes
- Cable: 4mm² (IEC)/12AWG (UL), 1100mm
- Connectors: MC4 or MC4 Comparable
- Standard Packaging (Modules per Pallet): 24pcs
- Module Pieces per container (40 ft. Container): 672pcs (40'HQ)

I-V Curves (ELPS Module)

About Canadian Solar

Canadian Solar was founded in Canada in 2001 and was successfully listed on NASDAQ Exchange (symbol: CSIQ) in November 2006. Canadian Solar will expand its module manufacturing capacity to 2.05GW and cell manufacturing capacity to 1.3GW in 2011.

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  • 10 year product warranty on materials and workmanship
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ELPS Cell Technology

Delivers highest poly cell (P-type) efficiency up to 18%

Our new breakthrough ELPS technology enables solar cells to collect more light resulting in 19.5% cell efficiency for monocrystalline cells and 18% efficiency for polycrystalline cells. These new cells feature a metal wrap through (MWT) design which moves the front busbars to the back of the cells allowing for 3% more light absorption per cell. As a result these modules deliver 6.3% more electricity than conventional solar modules.

ELPS solar modules, powered by 60 (156 x 156mm) high efficiency ELPS solar cells, offer the PV industry one of the highest module efficiencies and return on solar investment.

ELPS CS6P-255PM polycrystalline modules have a module efficiency up to 15.85%.

Applications

- On-grid residential roof-tops
- On-grid commercial/industrial roof-tops
- Solar power stations
- Other on-grid applications

Quality Certificates

- IEC 61215, IEC61730, UL 1703, CE
- ISO9001: 2008: Standards for quality management systems
- ISO/TS16949:2009: The automotive quality management system

Environmental Certificates

- ISO14001:2004: Standards for Environmental management systems
- QC080000 HSPM: The Certification for Hazardous Substances Regulations
ELPS Module
CS6P-240/245/250/255PM

Electrical Data

<table>
<thead>
<tr>
<th>STC</th>
<th>CS6P-240PM</th>
<th>CS6P-245PM</th>
<th>CS6P-250PM</th>
<th>CS6P-255PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Maximum Power (Pmax)</td>
<td>240W</td>
<td>245W</td>
<td>250W</td>
<td>255W</td>
</tr>
<tr>
<td>Optimum Operating Voltage (Vmp)</td>
<td>29.9V</td>
<td>30.0V</td>
<td>30.1V</td>
<td>30.2V</td>
</tr>
<tr>
<td>Optimum Operating Current (Imp)</td>
<td>8.03A</td>
<td>8.17A</td>
<td>8.30A</td>
<td>8.43A</td>
</tr>
<tr>
<td>Open Circuit Voltage (Voc)</td>
<td>37.0V</td>
<td>37.1V</td>
<td>37.2V</td>
<td>37.4V</td>
</tr>
<tr>
<td>Short Circuit Current (Isc)</td>
<td>8.59A</td>
<td>8.74A</td>
<td>8.87A</td>
<td>9.00A</td>
</tr>
<tr>
<td>Module Efficiency</td>
<td>14.92%</td>
<td>15.23%</td>
<td>15.54%</td>
<td>15.85%</td>
</tr>
</tbody>
</table>

Temperature Characteristics

-40°C~+85°C

Normal Operating Cell Temperature: 45°C

Performance at Low Irradiance

Industry leading performance at low irradiation environment, +95.5% module efficiency from an irradiance of 1000w/m² to 200w/m² (AM 1.5, 25°C)

Engineering Drawings

Mechanical Data

- ELPS Poly Cell 156 x 156mm
- Cell Arrangement: 60 (6 x 10)
- Dimensions: 1638 x 982 x 40mm (64.5 x 38.7 x 1.57in)
- Weight: 20kg (44.1 lbs)
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I-V Curves (ELPS Module)

- Specifications included in this datasheet are subject to change without prior notice.

About Canadian Solar

Canadian Solar Inc. is one of the world’s largest solar companies. As a leading vertically-integrated manufacturer of ingots, wafers, cells, solar modules and solar systems, Canadian Solar delivers solar power products of uncompromising quality to worldwide customers. Canadian Solar’s world class team of professionals works closely with our customers to provide them with solutions for all their solar needs.

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