Shanghai Aerospace Automobile Electromechanical Co. Ltd. (HT-SAAE) belongs to China Aerospace Science & Technology Corporation, and Shanghai Academy of Spaceflight Technology. HT-SAAE started its research on solar technology application in space since 1960’s.

As a large scale state-owned company, HT-SAAE owns a vertically-integrated industry chain from silicon ingots, wafers, cells, solar modules to solar systems and its subsidiaries have formed three main industry bases in Inner Mongolia, Shanghai and Jiangsu.

Since the beginning of 21st century, we have undertaken around 600 solar PV systems, including the “Bright Project” in west of China, The roof-top solar system for 2010 World EXPO. Solar plant in Jia Yuguang, China and solar plants in Italy and Germany.
**Highway Solar Module**

**HT48-156M**

**HT48-156M(V)**

225W-240W

---

**Electrical Characteristics**

<table>
<thead>
<tr>
<th>Module</th>
<th>HT48-156M / HT48-156M(V)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Power at STC(Inc.)</td>
<td>230W / 230W / 230W / 240W</td>
</tr>
<tr>
<td>Power-Factor(Voltage)</td>
<td>0.995 / 0.99 / 0.99 / 0.98</td>
</tr>
<tr>
<td>Temperature Coefficient</td>
<td>-0.39%/K / -0.3%/K / 0.04%/K</td>
</tr>
<tr>
<td>Temperature Coefficient at Voc</td>
<td>0.0%/K / 0.0%/K / 0.0%/K</td>
</tr>
<tr>
<td>Temperature Coefficient at Isc</td>
<td>0.0%/K / 0.0%/K / 0.0%/K</td>
</tr>
<tr>
<td>Temperature Coefficient at Imp</td>
<td>0.0%/K / 0.0%/K / 0.0%/K</td>
</tr>
<tr>
<td>Maximum Operating Voltage (Vmp)</td>
<td>25.8V / 25.8V / 25.8V / 25.8V</td>
</tr>
<tr>
<td>Maximum Operating Current (Imp)</td>
<td>8.75A / 8.75A / 8.75A / 8.75A</td>
</tr>
<tr>
<td>Maximum Operating Power (Pm)</td>
<td>225W / 225W / 225W / 225W</td>
</tr>
<tr>
<td>Power Tolerance</td>
<td>±5%</td>
</tr>
<tr>
<td>Module Efficiency</td>
<td>17.1% / 17.1% / 17.1% / 17.1%</td>
</tr>
<tr>
<td>Power Tolerance</td>
<td>±5%</td>
</tr>
<tr>
<td>Maximum System Voltage</td>
<td>1000V/1500V DC (IEC)</td>
</tr>
<tr>
<td>Min Operating Power Rating</td>
<td>15A</td>
</tr>
<tr>
<td>Operating Voltage</td>
<td>0 ~ +5W</td>
</tr>
<tr>
<td>Min Operating Current</td>
<td>0.4A/0.6A/0.8A/1A</td>
</tr>
<tr>
<td>Input Current</td>
<td>≤45℃ / ±2℃</td>
</tr>
<tr>
<td>Input Voltage</td>
<td>50 ~ 90V DC (IEC)</td>
</tr>
<tr>
<td>Output Voltage</td>
<td>15A</td>
</tr>
<tr>
<td>Output Current</td>
<td>1000V/1500V DC (IEC)</td>
</tr>
<tr>
<td>Output Power</td>
<td>225W / 225W / 225W / 225W</td>
</tr>
<tr>
<td>Output Current</td>
<td>8.75A / 8.75A / 8.75A / 8.75A</td>
</tr>
<tr>
<td>Output Voltage</td>
<td>25.8V / 25.8V / 25.8V / 25.8V</td>
</tr>
<tr>
<td>NOCT</td>
<td>45℃ ±2℃</td>
</tr>
</tbody>
</table>

**Module**

- Min Operating Power: 166W / 173W / 170W / 177W
- Min Operating Voltage: 28.9V / 29.3V / 29.1V / 29.6V
- Min Operating Current: 7.50A / 7.79A / 7.55A / 7.85A
- Min Operating Power: 166W / 173W / 170W / 177W

**Module Specifications**

- Min Operating Power: 166W / 173W / 170W / 177W
- Min Operating Voltage: 28.9V / 29.3V / 29.1V / 29.6V
- Min Operating Current: 7.50A / 7.79A / 7.55A / 7.85A
- Min Operating Power: 166W / 173W / 170W / 177W

**Environmental Characteristics**

- Module: IP67
- Junction Box: IP65
- Connector: IP67

**Certifications**

- IEC 61215
- IEC 61730
- IEC 62716
- IEC 61701

**Advantages**

- Enhanced surface treatment, less surface reflection and BBR self-cleaning, reducing the series resistance and improving the module efficiency.
- TUV certification
- PID resistant
- Microcrystalline silicon solar cell, providing high yield power output on module.
- Monocrystalline silicon solar cell, providing high yield power output on module.
- Higher module's output power: 25% higher than conventional silicon solar cells.
- Assembled with double-sided solar cells, reducing mismatch losses and improving efficiency.
- 10-year product warranty: IPV compatibility, ensuring the system's longevity.
- 25-year warranty on power output: TTC compatibility, ensuring the system's longevity.
- All the modules are sorted and packaged by amperage, reducing mismatch losses and maximizing system output.
- Advanced surface treatment, less surface reflection and BBR self-cleaning, reducing the series resistance and improving the module efficiency.
- PID resistant
- Microcrystalline silicon solar cell, providing high yield power output on module.
- Monocrystalline silicon solar cell, providing high yield power output on module.
- Higher module's output power: 25% higher than conventional silicon solar cells.
- Assembled with double-sided solar cells, reducing mismatch losses and improving efficiency.
- 10-year product warranty: IPV compatibility, ensuring the system's longevity.
- 25-year warranty on power output: TTC compatibility, ensuring the system's longevity.
- All the modules are sorted and packaged by amperage, reducing mismatch losses and maximizing system output.

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**HIGHWAY Solar Module**

**HT48-156P**
**HT48-156P(V)**
215W-225W

* V means 1500V module

- Advanced surface treatment, less surface reflection and BBO setting can reduce the series resistance and improve the module efficiency
- IEC
- PID resistant
- Microcrack resistant
- Triple EL tested of high quality control.
- PID resistant
- Designed for high voltage systems of up to 1500V DC, increasing the string length of solar systems and saving on BOS costs
- Solar Cells
- IRRAD: 19.1%; AM=1.5
- Weight: 15.5Kg
- Frame: Anodized aluminum alloy
- Junction Box: IP67 certified
- Connectors: MC4/MC4 Compatible
- Cable: 2xAWG 6.00mm²
- Packaging Configuration: 30pcs/box, 1020pcs/40’HQ Container

### Electrical Characteristics

<table>
<thead>
<tr>
<th>Module</th>
<th>HT48-156P</th>
<th>HT48-156P(V)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Power at STC (Pmax)</td>
<td>215W</td>
<td>220W</td>
</tr>
<tr>
<td>Short-Circuit Voltage(V)</td>
<td>30.4V</td>
<td>30.4V</td>
</tr>
<tr>
<td>Short-Circuit Current(Im)</td>
<td>9.0A</td>
<td>9.1A</td>
</tr>
<tr>
<td>Optimum Operating Voltage(Vmp)</td>
<td>25.8V</td>
<td>26.0V</td>
</tr>
<tr>
<td>Optimum Operating Current(Imp)</td>
<td>9.4A</td>
<td>9.4A</td>
</tr>
<tr>
<td>Module Efficiency</td>
<td>16.4%</td>
<td>16.4%</td>
</tr>
<tr>
<td>Power Tolerance</td>
<td>±0.41%</td>
<td>±0.32%</td>
</tr>
<tr>
<td>Minimum System V fusing Rating</td>
<td>15A</td>
<td></td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40°C to +85°C</td>
<td></td>
</tr>
<tr>
<td>Operating Humidity</td>
<td>1000W/m², 800W/m², 500W/m²</td>
<td></td>
</tr>
</tbody>
</table>

### Mechanical Characteristics

- Solar Cells: Polycrystalline
- Dimensions: 156.75 × 156.75 mm
- Weight: 15.5 kg
- Frame: Anodized aluminum alloy
- Junction Box: IP67 certified
- Connectors: MC4/MC4 Compatible
- Cable: 2xAWG 6.00mm²
- Temperature Coefficient of Pmax: -0.41%/K
- Temperature Coefficient of Voc: -0.32%/K
- Temperature Coefficient of Isc: -0.050%/K

### Warranty

- 10-year product warranty, 25-year warranty on power output
- Specific information is referred to the product quality guarantee

### Information Box

- The module recycling should be carried out by the professional institutions at the the end of module life cycle
- Manufacturer recycling should be carried out by the professional institutions at the the end of module life cycle

**Reliable State-owned Enterprise Deliver Solar Power since 1960s**

**HT-SEAA**

**Electrical Characteristics**

- Efficiency: 16.4%
- Short-Circuit Current: 9.0A
- Open-Circuit Voltage: 30.4V
- Maximum Power Voltage: 25.8V
- Maximum Circuit Current: 9.4A

**Mechanical Characteristics**

- Solar Cells: Polycrystalline
- Dimensions: 156.75 × 156.75 mm
- Weight: 15.5 kg
- Frame: Anodized aluminum alloy
- Junction Box: IP67 certified
- Connectors: MC4/MC4 Compatible
- Cable: 2xAWG 6.00mm²

**Temperature Characteristics**

- Temperature Coefficient of Pmax: -0.41%/K
- Temperature Coefficient of Voc: -0.32%/K
- Temperature Coefficient of Isc: -0.050%/K

**Warranty**

- 10-year product warranty, 25-year warranty on power output
- Specific information is referred to the product quality guarantee

**Information Box**

- The module recycling should be carried out by the professional institutions at the the end of module life cycle
- Manufacturer recycling should be carried out by the professional institutions at the the end of module life cycle

**Reliable State-owned Enterprise Deliver Solar Power since 1960s**

**HT-SEAA**
**Highway Solar Module**

**HT60-156M**
**HT60-156M(V)**

280W-300W

* V means 1560V modules

**Advanced surface treatment, less surface reflection and BBG self design can reduce the series resistance and improve the module efficiency**

+ 10.4% Module Efficiency

**Designed for high voltage systems of up to 1500 VDC, increasing the string length of solar systems and saving on Bal costs**

**1000V PDC**

+ Higher modules output power

**Certified to withstand dynamic mechanical load 1000 Pascal**

**HT-SAAE guarantees highest protection standards: IEC 61215, IEC 61730, IEC 62716 (Ammonia corrosion) & IEC 6751 (Salt Mist Corrosion)**

**IEC PID resistant**

**Microarc oxidation, Triple EL tested of high quality control.**

**10Ys Products Warranty**

+ Warranty on power output

5W

**Strict quality control, meeting the highest international standards: ISO 9001, ISO14001 and OHSA18001**

**I-V Curves**

1. **Electrical Characteristics**

<table>
<thead>
<tr>
<th>Module:</th>
<th>HT60-156M / HT60-156M(V)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Power at STC(Vmp)</td>
<td>280W</td>
</tr>
<tr>
<td>Short-Circuit Voltage(V)</td>
<td>26.6V</td>
</tr>
<tr>
<td>Short-Circuit Current(A)</td>
<td>9.32A</td>
</tr>
<tr>
<td>Open-Circuit Voltage(V)</td>
<td>32.4V</td>
</tr>
<tr>
<td>Maximum Operating Voltage(V)</td>
<td>36.9V</td>
</tr>
<tr>
<td>Module Efficiency%</td>
<td>17.2%</td>
</tr>
<tr>
<td>Power Tolerance</td>
<td>±5W</td>
</tr>
<tr>
<td>Maximum System Voltage</td>
<td>1000V/1500V (DC)</td>
</tr>
<tr>
<td>Maximum Series Fuse Rating</td>
<td>15A</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40°C to +85°C</td>
</tr>
<tr>
<td>NOCT</td>
<td>45°C ±2°C</td>
</tr>
<tr>
<td>Output - ESR 200 Ω max; sunlight temperature 80°C - wind speed 1 m/s</td>
<td></td>
</tr>
</tbody>
</table>

**Mechanical Characteristics**

<table>
<thead>
<tr>
<th>Series Cells</th>
<th>Monocrystalline 156.75 × 156.75mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Cells</td>
<td>30 pcs/box, 910 pcs/40'HQ Container</td>
</tr>
<tr>
<td>Weight</td>
<td>18.4 KG (64.6 lbs)</td>
</tr>
<tr>
<td>Frame</td>
<td>High transmission tempered glass</td>
</tr>
<tr>
<td>Junction Box</td>
<td>Anodized aluminum alloy</td>
</tr>
<tr>
<td>Cable</td>
<td>4mm2 (IEC 890mm²)</td>
</tr>
<tr>
<td>Connectors</td>
<td>MC4/MC4 Compatible</td>
</tr>
<tr>
<td>Packaging Configuration</td>
<td>30pcs/box, 910pcs/40'HQ Container</td>
</tr>
</tbody>
</table>

**Temperature Characteristics**

| Temperature Coefficient of Power (W) | -0.36%/K |
| Temperature Coefficient of Voc (V) | -0.29%/K |
| Temperature Coefficient of Isc (A) | 0%/K |

**Warranty**

*10-year product warranty
*12-year warranty on power output

Specific information is referred to the product quality guarantee

**Information Box**

Shanghai Aerospace Automobile Electromechanical Co., Ltd. HT Solar Energy JSC.
Factory: Liuyangang ShenZhou New Energy Co., Ltd. HT Solar Energy JSC
**HIGHWAY Solar Module**

**HT60-156P**  
**HT60-156P(V)**  
265W-280W  

* V means 1500V module

**Electrical Characteristics**

<table>
<thead>
<tr>
<th>Module</th>
<th>HT60-156P / HT60-156P (V)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Power at STC (Pmax)</td>
<td>265W / 270W / 275W / 280W</td>
</tr>
<tr>
<td>Short-Circuit Voltage</td>
<td>37.8V / 38V / 39V / 39.2V</td>
</tr>
<tr>
<td>Short-Circuit Current</td>
<td>9.04A / 8.65A / 9.18A / 9.52A</td>
</tr>
<tr>
<td>Maximum Operating Voltage</td>
<td>31.7V / 32.1V / 32.9V / 32.9V</td>
</tr>
<tr>
<td>Module Efficiency</td>
<td>16.3% / 16.6% / 16.9% / 17.2%</td>
</tr>
<tr>
<td>Power Tolerance</td>
<td>0 ~ +5W</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40°C to +85°C</td>
</tr>
<tr>
<td>NOCT</td>
<td>45°C ± 2°C</td>
</tr>
</tbody>
</table>

**Mechanical Characteristics**

- Polycrystalline, 156.75 × 156.75mm
- 910 pcs/40'HQ Container
- MC4/MC4 Compatible
- I-V Curves
- Electrical Efficiency: 15.5 - 16.5%
- Power Output: 1800W-2500W
- Module Recycling: Professional institutions
- Warranty: 10 years (product warranty), 25 years (power output)

**Temperature Characteristics**

- Temperature Coefficient of Pmax: -0.41%/°C
- Temperature Coefficient of Voc: -0.32%/°C
- Temperature Coefficient of Imp: -0.50%/°C

**Warranty**

- Product warranty: 10 years
- Power output warranty: 25 years

**Information Box**

- Entire module certified with brand name wind (2000Pa) and snow loads (2000Pa)
- Strict quality control, meeting the highest international standards: IEC 60891, IEC61400-1 and IEC61400-22
- All modules are sorted and packaged by amperage, reducing mismatch losses and maximizing system output.
- Higher module's output power
- HT-SAAE guarantees highest protection standards: IEC 61215, IEC 61701, IEC 61701/4, IEC 61701/6, IEC 61701/7, IEC 61701/8, IEC 61701/10
- Microcrack-resistant Triple EL tested of high quality control.
- Pollution resistant 0/+5w guaranteed
- Designed for high voltage systems of up to 1000 VDC, increasing the string length of solar systems and saving on BOS costs
- I-V Curves
- PID resistant
- Certified to withstand dynamic mechanical load 1000 Pascal
- Certified to withstand extreme wind (2400 Pa) and snow loads (5400 Pa)
- Microcrack-resistant
- Triple EL tested of high quality control
- Positive tolerance 0/+5w guaranteed
- Higher module’s output power
- Advanced surface treatment, less surface reflection and BBR self design can reduce the series resistance and improve the module efficiency
- ISO
- IEC
- TUV certification
- HT-SAAE guarantees highest protection standards: IEC 61215, IEC 61701, IEC 61701/4, IEC 61701/6, IEC 61701/7, IEC 61701/8, IEC 61701/10 (Ballast Corrosion)
- PID resistant
- Maximum Power at STC (Pmax) 265W / 270W / 275W / 280W
- Short-Circuit Voltage 37.8V / 38V / 39V / 39.2V
- Short-Circuit Current 9.04A / 8.65A / 9.18A / 9.52A
- Maximum Operating Voltage 31.7V / 32.1V / 32.9V / 32.9V
- Module Efficiency 16.3% / 16.6% / 16.9% / 17.2%
- Power Tolerance 0 ~ +5W
- Operating Temperature -40°C to +85°C
- NOCT 45°C ± 2°C
- Temperature Coefficient of Pmax -0.41%/°C
- Temperature Coefficient of Voc -0.32%/°C
- Temperature Coefficient of Imp -0.50%/°C
- Warranty: 10 years (product warranty), 25 years (power output)
- Specific information is referred to the product quality guarantee
- The module recycling should be carried out by the professional institutions at the the end of module life cycle

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**Specifications**

- Solar Cells: Polycrystalline
- Dimensions: 156.75 × 156.75mm
- Weight: 10 kg (± 1%)
- Output Power: 265W / 270W / 275W / 280W
- Maximum System Voltage: 1000V/1500V DC (IEC)
- Ambient Temperature: 0 ~ +5W
- Wind Speed: 1 m/s
- Maximum Power at STC (Pmax) 265W / 270W / 275W / 280W
- Short-Circuit Voltage: 37.8V / 38V / 39V / 39.2V
- Maximum Power Voltage: 31.7V / 32.1V / 32.9V / 32.9V
- NOCT: 45°C ± 2°C
- Temperature Coefficient of Pmax: -0.41%/°C
- Temperature Coefficient of Voc: -0.32%/°C
- Temperature Coefficient of Imp: -0.50%/°C
- Warranty: 10 years (product warranty), 25 years (power output)
- Specific information is referred to the product quality guarantee
- The module recycling should be carried out by the professional institutions at the the end of module life cycle

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### Electrical Characteristics

<table>
<thead>
<tr>
<th>Module</th>
<th>HT72-156M / HT72-156M(V)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Power at STC/(W)</td>
<td>340W / 360W</td>
</tr>
<tr>
<td>Short-Circuit Current (Isc)</td>
<td>9.35A / 9.76A</td>
</tr>
<tr>
<td>Open-Circuit Voltage (Voc)</td>
<td>45.3V / 45.7V</td>
</tr>
<tr>
<td>Maximum System Voltage</td>
<td>80V / 80V</td>
</tr>
<tr>
<td>Maximum Power Voltage (Vmp)</td>
<td>44.1V / 44.6V</td>
</tr>
<tr>
<td>Module Efficiency</td>
<td>17.5% / 18.6%</td>
</tr>
<tr>
<td>Power Tolerance</td>
<td>± 1%</td>
</tr>
<tr>
<td>Maximum Current</td>
<td>9.23A / 9.23A</td>
</tr>
<tr>
<td>Maximum Voltage</td>
<td>5.8V / 5.8V</td>
</tr>
</tbody>
</table>

### Mechanical Characteristics

- **Microcrack resistant**
- **Triple EL tested of high quality control.**
- **Front Glass**
  - 4mm (IEC), 1000mm
  - **Durability**
- **Certified to withstand dynamic mechanical load 1000 Pascal**
- **Certified to withstand extreme wind (2400 Pa) and snow loads (5400 Pa)**
- **Microcrack resistant**
- **Triple EL tested of high quality control.**

### Temperature Characteristics

- **Temperature Coefficient of Power**
  - 0 to +5W
- **Temperature Coefficient of Voc**
  - -0.39%/℃
- **Temperature Coefficient of Isc**
  - -0.29%/℃
- **Temperature Coefficient of Pratio**
  - 0.049%/℃

### Warranty

- **Power product warranty**
  - 10-year product warranty
  - 25-year warranty on power output
- **Specific information is referred to the product quality guarantee**

### Information Box

- **Certified by TUV and IEC standards**
- **SOLAR CERTIFIED**
- **Certified to IEC 61730, IEC 61215 standards**
- **Certified to withstand dynamic mechanical load 1000 Pascal**
- **Certified to withstand extreme wind (2400 Pa) and snow loads (5400 Pa)**
- **Microcrack resistant**
- **Triple EL tested of high quality control.**
- **Front Glass**
  - 4mm (IEC), 1000mm
- **Certified to withstand dynamic mechanical load 1000 Pascal**
- **Certified to withstand extreme wind (2400 Pa) and snow loads (5400 Pa)**
- **Microcrack resistant**
- **Triple EL tested of high quality control.**

### NOCT

- **Nominal Power at STC/(W)**
  - 251W / 254W / 258W / 262W / 266W
- **Alternative Power at 800W/m²**
  - 254W / 258W / 262W / 266W
- **Temperature Coefficient of Pmax**
  - -0.29%/℃
- **Temperature Coefficient of Voc**
  - -0.39%/℃
- **Temperature Coefficient of Isc**
  - 0.049%/℃

### Moduleature

- **Monocrystalline 156.75 × 156.75mm**
- **No. of Cells**
- **Dimensions**
- **Weight**
- **Frame**
- **Junction Box**
- **Cable**
- **Connectors**
- **Packaging Configuration**

### Designated for high voltage systems of up to 1500 VDC, increasing the string length of solar systems and saving on BOS costs.

- **Positive tolerance 0/+5w guaranteed**
- **Higher module’s output power**
- **Certified to withstand dynamic mechanical load 1000 Pascal**
- **Certified to withstand extreme wind (2400 Pa) and snow loads (5400 Pa)**
- **Microcrack resistant**
- **Triple EL tested of high quality control.**

### Advanced surface treatment, less surface reflection and BFI self design can reduce the series resistance and improve the module efficiency.

- **10.5% Module Efficiency**
- **PID resistant**
- **10Years Products Warranty**

### All the modules are sorted and packaged by amperage, reducing mismatch losses and maximizing system output.

- **ISO 9001, ISO14001 and OHSAS18001**
- **Positive tolerance 0/+5w guaranteed**

### The module recycling should be carried out by the professional institutions at the the end of module life cycle.

- **V means 1500V module**

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### Electrical Characteristics

<table>
<thead>
<tr>
<th>Module</th>
<th>HT72-156P / HT72-156P(V)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Power</td>
<td>315W, 335W</td>
</tr>
<tr>
<td>Open-Circuit Voltage (Voc)</td>
<td>46V, 46V</td>
</tr>
<tr>
<td>Short-Circuit Current (Isc)</td>
<td>9.05A, 9.12A</td>
</tr>
<tr>
<td>Maximum Power Voltage (Vmp)</td>
<td>37.8V, 37.9V</td>
</tr>
<tr>
<td>Maximum Circuit Current (Imp)</td>
<td>8.34A, 8.45A</td>
</tr>
<tr>
<td>Module Efficiency</td>
<td>16.4%, 16.6%</td>
</tr>
<tr>
<td>Power Tolerance</td>
<td>±0.4%/°C</td>
</tr>
<tr>
<td>Maximum System Voltage</td>
<td>1400V, 1500V (DC)</td>
</tr>
<tr>
<td>Minimum Series Fuse Rating</td>
<td>15A</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40°C to +85°C</td>
</tr>
</tbody>
</table>

### Mechanical Characteristics

- **Poly crystalline** 156.75 × 156.75mm
- 26pcs/box, 672pcs/40’HQ Container
- Use of high transmission tempered glass
- Designed for high voltage systems of up to 1500 VDC
- Increasing the string length of solar systems and saving on Bal costs
- PID resistant
- Designed for high voltage systems of up to 1500 VDC, increasing the string length of solar systems and saving on BoS costs
- Microcrack resistant
- Triple EL tested, high quality control.
- Warranty on power output: 25 years
- Warranty on product: 10 years
- Positive Tolerance (PMP) 0% to +5%
- Positive Tolerance (PMP) 0% to +5%
- I-V Curves

### Temperature Characteristics

- Temperature Coefficient of Power: -0.41%/°C
- Temperature Coefficient of Voc: -0.36%/°C
- Temperature Coefficient of Imp: -0.36%/°C

### Warranty

- 10-year product warranty
- 25-year warranty on power output
- Specific information is referred to the product information guarantee

### Information Box

- The module recycling should be carried out by the professional institutions at the end of the module life cycle.

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**Highway Solar Module**

**HT72-156P**

**HT72-156P(V)**

315W-335W

**HT-SAAE guarantees highest production standards:**

- IEC 61215, IEC 61730, IEC 62716 (Ambient corrosion)
- IEC 61701 (Salt Mist Corrosion)

**Advanced surface treatment**

- Less surface reflection and 5BB cell design can reduce the series resistance and improve the module efficiency.

**ISO 9001, ISO 14001 and OHSAS 18001**

**HT-SAAE guarantees highest production standards:**

- IEC 61215, IEC 61730, IEC 62716 (Ambient corrosion)
- IEC 61701 (Salt Mist Corrosion)

- PID resistant
- Microcrack resistant
- Triple EL tested, high quality control.

**IT-2:**

- Module Efficiency
- Certified to withstand dynamic mechanical load 1000 Pascal
- 10-year product warranty
- Positive Tolerance (PMP) 0% to +5%

**I-V Curves**

**Mechanical Characteristics**

- High transmission tempered glass
- Anodized aluminium alloy
- 240kg (529lbs)
- 1956mm × 992mm × 40mm (77.0in × 39.1in × 1.6in)

**Electrical Characteristics**

- Voltage (V)
- Current (A)
- Power (W)
- Curves

**Electrical Characteristics**

- Voltage (V)
- Current (A)
- Power (W)
- Curves