LONG LASTING PANELS

STRONG WARRANTIES

YOUR PROJECT DESERVES THE Mono X® Plus

The latest Mono X® Plus benefits from years of LG research. The fifth generation LG Mono X® Plus offers long warranties and a high efficiency.

The LG Mono X® Plus will provide many years of clean, reliable energy. Choosing the high quality Mono X® Plus is an investment in superior standards of design, manufacture, back up support and warranties. The high quality is the result of our strong commitment to developing a module that delivers reliable, high output for years for a peace of mind commercial solar solution.

Great Performance

LG has been involved in a number of comparison tests of the LG panels against other brand panels. LG MonoX Plus models are performing well in these tests.

More Power per Square Metre

LG MonoX® plus 360W panels are a similar physical size to many conventional 72 cell 320W panels. This means with the LG MonoX® plus 360W you get 12.5% more electricity per square meter than a 320W panel. So you can install more kW of solar on your roof with the LG MonoX® plus.

12 Years Product Warranty (Parts & Labour)

The LG product warranty is 2 years longer than many competitor’s standard 10 years and covers 12 years. The Warranty is provided by LG Electronics Australia and New Zealand. The warranty includes replacement labour and transport.

Improved 25 Year Performance Warranty

The initial degradation of cells has been improved from -3% to -2%, in the 1st year and the annual rate of degradation has fallen from -0.7%/year to -0.55%/ year thereafter. This brings an 84.8% warranted output after 25 years, compared to 80.2% for many standard panels.

www.lgenergy.com.au
ABOUT LG ELECTRONICS

LG Electronics embarked on a solar energy research programme in 1985, using our vast experience in semi-conductors, chemistry and electronics. In 2010, LG Solar successfully released its first Mono X® series, and LG Solar modules are now available in 32 countries. In 2015 and 2016 LG solar panels range won the acclaimed Top Brand PV Award in Europe and in 2016 the Top Brand Australia Award which demonstrates LG Solar's lead in innovation and commitment to the renewable energy industry.

With over 200 lesser known brand panels selling in Australia, LG solar panels offer a peace of mind solution, as they are backed by a very large, diversified company with over 100 subsidiaries.

KEY FEATURES

**Excellent low light performance**
Great performance under low light conditions due to LG technology and our own cell manufacturing with low tolerances, ensuring highly consistent performing panels. At 200W/m² LG panel efficiency drop is -2% while many conventional panels reduce by -4%.

**Corrosion Resistance Certification**
LG Mono X® Plus panels can be installed confidently right up to the coastline. The panels have received certification for Salt Mist Corrosion to maximum severity 6 and Ammonia Resistance.

**Strict Quality Control Reliable for the Future**
The quality control of LG world-class solar production is monitored and improved using Six Sigma techniques via 500+ monitoring points to effectively maintain and improve our uncompromising quality.

**Multi Anti-reflective Coatings Increase Output**
LG is using an anti-reflective coating on the panels glass as well as on the cell surface to ensure more light is absorbed in the panel and not reflected. More absorbed light means more electricity generation.

**Solid High Temperature Performance**
Solar panels slowly lose the ability to generate power as they get hotter. LG Mono X® Plus has a better temperature co-efficient than many standard modules, which means in hot weather LG Mono X® Plus will deliver higher output.

**High quality components**
Our LG panels use quality junction boxes which are completely water proof (IP67) and use the original Swiss MC4 panel connection plugs, not copies, like some lower priced competitors do.

**Reduced LID**
The Mono X® Plus (LiLy technology) has reduced the initial degradation of solar cells by applying LG new LiLy (LID-improvement for Lifetime Yield) Technology, which controls the reaction of Boron and Oxygen, a key factor of LID (Light Induced Degradation).

**Extensive Testing Programme**
LG solar panels are tested between 2 to 4 times the International Standards at our in-house testing laboratories, ensuring a very robust and longer lasting solar module.

**High compatibility with system design solutions**
LG Mono X plus 72 cell modules are designed for commercial and utility scale systems. The panels will work with commercial inverter solutions on the local market. The panels can be mounted for roof top or ground mount in vertical (landscape) and horizontal (portrait) installation positions.

**Positive Tolerance (0/+3%)**
If you buy a 360 Watt panel then the flash test of this panel will show somewhere between 360W and 371W. Some competitor panels have -/+ tolerance, so you could get a flash test result below the rated Watt, meaning you pay for Watts you never get.

**Anti PID Technology for Yield Security**
PID (Potential Induced Degradation) affects the long term ability of panels to produce high level electricity output. LG panels have anti PID technology and have been successfully tested by leading third party laboratories regarding PID resistance.

**Fully Automated Production in South Korea**
All LG solar panels are manufactured in a custom designed and fully automated production line by LG in Gumi, South Korea ensuring extremely low tolerances. This means great quality and build consistency between panels.
LG Mono X® Plus – GREAT PERFORMANCE

The new Mono X® Plus - 72 cell by LG combines everything a solar module needs: long service life and ease of installation as well as an elegant exterior, high efficiency and a long warranty.

LOCAL WARRANTY, GLOBAL STRENGTH

LG Solar is part of LG Electronics Inc., a global and financially strong company, with over 50 years of experience in technology. Good to know: LG Electronics Australia Pty Ltd is the warrantor in Australia and NZ for your solar modules. So LG support, via offices in every Australian mainland state and NZ and through our 70 strong, Australia wide dealer network, is only a phone call away.

LiLy TECHNOLOGY, AN LG ADVANTAGE

![Graph showing performance degradation over time]

EXCELLENT QUALITY, INDEPENDENTLY TESTED

You can rely on LG. We test our products with at least double the intensity specified in the IEC standard. (International Quality Solar Standard).

CONTINUED ACKNOWLEDGED EXCELLENCE

Our panel range have won a string of International Awards.

Longer Product Warranty

10yrs + 2yrs

LG offers a two year longer product warranty for parts and labour from many competitor’s 10 years to an impressive 12 years.
Mechanical Properties
- Cells: 6 x 12
- Cell Vendor: LG
- Cell Type: Monocrystalline / P-type
- Cell Dimensions: 161.7 x 161.7 mm
- Number of Busbar: 4
- Dimensions (L x W x H): 2024 x 1024 x 40 mm
- Front Load: 5400 Pa
- Rear Load: 2400 Pa
- Weight: 21.7 kg
- Connector Type: Genuine MC4, IP68 (Male: PV-AST4, Female: PV-KST4)
- Junction Box: IP68 with 3 bypass diodes
- Length of Cables: 2 x 1200 mm
- Front Cover: High transmission tempered glass
- Frame: Anodised aluminium with protective black coating

Certifications and Warranty
- Certifications:
  - ISO 9001
  - IEC 61215, IEC 61730-1/-2
  - IEC 61701 (Salt Mist Corrosion Test)
  - IEC 62716 (Ammonia Corrosion Test)
- Module Fire Rating: Class C
- Product Warranty: 12 Years
- Output Warranty of Pmax: Linear Warranty

Temperature Characteristics
- NOCT: 45 ± 3 °C
- Pmax: -0.41 %/°C
- Voc: -0.30 %/°C
- Isc: 0.03 %/°C

Current – Voltage characteristics at various irradiance levels

Current – Voltage characteristics at various cell temperatures

Electrical Properties (STC*)

<table>
<thead>
<tr>
<th>Module Type</th>
<th>355 W</th>
<th>360 W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Power Pmax (W)</td>
<td>355</td>
<td>360</td>
</tr>
<tr>
<td>MPP Voltage Vmpp (V)</td>
<td>37.4</td>
<td>37.7</td>
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<tr>
<td>MPP Current Impm (A)</td>
<td>9.50</td>
<td>9.56</td>
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<tr>
<td>Open Circuit Voltage Voc (V)</td>
<td>46.4</td>
<td>46.6</td>
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<tr>
<td>Short Circuit Current Isc (A)</td>
<td>10.07</td>
<td>10.12</td>
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<tr>
<td>Module Efficiency (%)</td>
<td>17.1</td>
<td>17.4</td>
</tr>
<tr>
<td>Operating Temperature (°C)</td>
<td>-40 ~ +90</td>
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</tr>
<tr>
<td>Maximum System Voltage (V)</td>
<td>1000 (IEC) 1500 (UL)</td>
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</tr>
<tr>
<td>Maximum Series Fuse Rating (A)</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Power Tolerance (%)</td>
<td>0 ~ +3</td>
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</tr>
</tbody>
</table>

* STC (Standard Test Condition): Irradiance 1000 W/m², module temperature 25 °C, AM 1.5.

Electrical Properties (NOCT*)

<table>
<thead>
<tr>
<th>Module Type</th>
<th>355 W</th>
<th>360 W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Power Pmax (W)</td>
<td>260</td>
<td>264</td>
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<tr>
<td>MPP Voltage Vmpp (V)</td>
<td>34.3</td>
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<tr>
<td>MPP Current Impm (A)</td>
<td>7.58</td>
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<tr>
<td>Open Circuit Voltage Voc (V)</td>
<td>43.3</td>
<td>43.2</td>
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<tr>
<td>Short Circuit Current Isc (A)</td>
<td>8.10</td>
<td>8.14</td>
</tr>
</tbody>
</table>

* NOCT (Nominal Operating Cell Temperature): Irradiance 800 W/m², ambient temperature 20°C, wind speed 1 m/s

Dimensions (mm)

1) 1st year 98%, 2) After 1st year 0.5%/year annual degradation, 3) 84.8% for 25 years