The new LG NeON® 2 72 cell has seen many improvements, from longer warranties and higher efficiency to lower degradation. This panel is ideal for commercial systems or solar farms seeking an efficient use of space and a high quality panel with great output efficiency.

The new NeON® 2 with 72 cells adopts the award winning CELLO Technology replacing 3 busbars in each cell with 12 thin wires to enhance power output. This technology sets a new standard for innovation and was recognised with the 2015 Photovoltaic Innovation Award at the Intersolar Industry Event in Germany. LG also won the 2016 Intersolar award for our new NeON® Bifacial range.

**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 -0.33%/year thereafter. This brings an 90.08% warranted output at 25 years, compared to 80.2% for many competing panels.

**More Power per Square Metre**

LG NeON® 2's 415W are a similar physical size to many conventional 360W 72 cell panels. This means with the LG NeON® 2 415W you get 15% more electricity per square metre than a 360W panel. So you can install more kW of solar on your roof with the LG NeON® 2.

**25 Years Product Warranty (Parts & Labour)**

LG has extended the product warranty of the LG NeON® 2 by an additional 15 years from industry average 10 to 25 years. This includes coverage for labour and transport.

**Improved High Temperature Performance**

Solar panels slowly lose ability to generate power as they get hotter. LG NeON® 2, has an improved temperature co-efficient of -0.36%/˚C to our previous model and to the majority of competitor models which means in high temperatures LG NeON® 2 panels will deliver higher output.

**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 -0.33%/year thereafter. This brings an 90.08% warranted output at 25 years, compared to 80.2% for many competing panels.
ABOUT LG SOLAR

LG Electronics embarked on a solar energy research programme in 1985, using our vast experience in semi-conductors, chemistry and electronics. LG Solar modules are now available in over 50 countries. In 2013, 2015 and 2016 the LG NeON® range won the acclaimed Intersolar Award in Germany, which demonstrates LG Solar's lead in innovation and commitment to the renewable energy industry. Additionally, LG Solar™ won the Australian Top Brand award in 2016, 2017, 2018 and 2019.

With over 200 lesser known brand panels selling in Australia, LG solar panels offer a peace of mind solution, as they are backed by an established global brand.

KEY FEATURES

- **Proven Field Performance**: LG has been involved in a number of comparison tests of the LG panels against many other brand panels. LG NeON® models are consistently among the best performing in these tests.

- **Corrosion Resistance Certification**: LG NeON® 2 panels can be installed confidently right up to the coastline as the LG warranty will guarantee these type of installations.

- **Strict Quality Control Reliable for the Future**: The quality control of LG world-class production processes is monitored and improved to Six Sigma quality control standards, which includes 500+ monitoring points to effectively maintain and improve our uncompromising standards.

- **Multi Anti-reflective Coatings Increase Output**: LG Solar™ 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.

- **Installation Time Savings**: This NeON® 2 - 72 cell panel can reduce installation time for commercial systems, as there are less panels required eg. to install a 3.6 MW system one would need 8,675 LG415W instead of 10,000 of a 360W – 72 cell panel. There will also be significant savings in design, transport, labour, rails and cabling and 13% less space required.

- **“CELLO” Technology Increases Power**: “CELLO” Multi wire busbar cell technology lowers electrical resistance and increases panel efficiency, giving more power per panel and provides a more uniform look to the panel.

- **Low LID**: The N-type doping of the NeON® cells results in extremely low Light Induced Degradation (LID) when compared with the standard P-type cells. This means more electricity generation over the life of the panel as the panel degrades less.

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

- **Double-Sided Cell Structure**: In conventional panels the cells produce energy from the front only. The NeON® Cell produces energy from both the front as well as the back of the cell. This innovative technology allows the absorption of light from behind the panel which raises the panel’s efficiency and electricity output.

- **Positive Tolerance (0/+3%)**: If we sell you a 415 Watt panel then the flash test of this panel will show somewhere between 415W and 427W. 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.

- **Excellent low light performance**: LG NeON 2 panels will give better performance under low light, such as early morning or late afternoon compared to many competing panels.

- **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 NeON® 2 72 cell – INNOVATIVE, CLEVER, HIGH EFFICIENT

LG NeON® 2 72 cell solar modules now offer even more performance. Featuring LG’s 12 wire busbar CELLO Technology for improved performance and reliability, it can also withstand a static front panel load of 5,400 pascals. LG has extended its product warranty from 10 to 25 years and improved its linear performance guarantee to at least 90.08% of nominal output after 25 years.

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.

HIGHER OUTPUT, HIGHER YIELD

The NeON® Cell produces energy from both the front and the back of the cell. This innovative approach allows the absorption of light from the back of the cell which raises the panel’s efficiency and power output. Standard panels only absorb light from the front.

EXCELLENT QUALITY, THOROUGHLY 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).

GREAT WARRANTY

If you buy an LG panel and should there be a warranty issue you will deal with LG Electronics Australia/NZ. You will not have to worry if the importer is still in operation or the manufacturer is located overseas. We are only one phone call away. LG Electronics Australia/NZ backs your product. That’s peace of mind. Contact us on solarsales@lge.com.au or ph 1300 152 179.

LG offers a 15 year longer product warranty for parts and labour than many competitors 10 years to an impressive 25 years.
**Mechanical Properties**

- **Cells**: 6 x 12
- **Cell Vendor**: LG
- **Cell Type**: Monocristalline / N-type
- **Cell Dimensions**: 161.7 x 161.7 mm
- **No of Busbar**: 12 (Multi Wire Busbar)
- **Dimensions (L x W x H)**: 2024 x 1024 x 40 mm
- **Front Load (test)**: 5400 Pa
- **Rear Load (test)**: 3000 Pa
- **Weight**: 20.3 kg
- **Connector Type**: Genuine MC4, IP68 (Male: PV-KST4) (Female: PV-KBT4)
- **Length of Cables**: 2 x 1200 mm
- **Front cover**: High transmission tempered glass
- **Frame**: Anodised aluminum (silver colour)

**Certifications and Warranty**

- **Certifications**: ISO 9001, ISO 14001, ISO 50001
- **IEC 61215-1/-1/-2/2016**, **IEC 61730-1/-2/2016, UL1703**
- **OGAS 18001**
- **Module Fire Performance**: Type 1 (UL 1703), Class C (UL 790, ULC/ORD C 1703)
- **Product Warranty**: 25 Years
- **Output Warranty of Pmax**: 25 Years
- **Power Tolerance (%)**: Linear Warranty ²

**Temperature Characteristics**

- **NMOT**: 42 ± 3°C
- **Pmax**: -0.36 %/°C
- **Voc**: -0.26 %/°C
- **Isc**: 0.02 %/°C

- **1)** 1st year: 98%, 2) After 1st year: 0.33% annual degradation, 3) 90.08% for 25 years

### Characteristic Curves

- **Current (A)** vs **Voltage (V)**
- **Isc**, **Voc**, **Pmax**

- **Temperature (°C)** vs **Isc**, **Voc**, **Pmax**

**Electrical Properties (STC)²**

<table>
<thead>
<tr>
<th>Module Type</th>
<th>410 W</th>
<th>415 W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Power Pmax (W)</td>
<td>410</td>
<td>415</td>
</tr>
<tr>
<td>MPP Voltage Vmpp (V)</td>
<td>41.4</td>
<td>41.8</td>
</tr>
<tr>
<td>MPP Current Imp (A)</td>
<td>9.91</td>
<td>9.94</td>
</tr>
<tr>
<td>Open Circuit Voltage Voc (V)</td>
<td>49.5</td>
<td>49.6</td>
</tr>
<tr>
<td>Short Circuit Current Isc (A)</td>
<td>10.55</td>
<td>10.59</td>
</tr>
<tr>
<td>Module Efficiency (%)</td>
<td>19.8</td>
<td>20.0</td>
</tr>
<tr>
<td>Operating Temperature (°C)</td>
<td>-40 ~ +90</td>
<td></td>
</tr>
<tr>
<td>Maximum System Voltage (V)</td>
<td>1000</td>
<td></td>
</tr>
<tr>
<td>Maximum Series Fuse Rating (A)</td>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>

² STC (Standard Test Condition): Irradiance 1000 W/m², Module Temperature 25 °C, AM 1.5.

The nameplate power output is measured and determined by LG Electronics at its sole and absolute discretion.

**Electrical Properties (NMOT)²**

<table>
<thead>
<tr>
<th>Module Type</th>
<th>410 W</th>
<th>415 W</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Power Pmax (W)</td>
<td>307</td>
<td>311</td>
</tr>
<tr>
<td>MPP Voltage Vmpp (V)</td>
<td>38.9</td>
<td>39.3</td>
</tr>
<tr>
<td>MPP Current Imp (A)</td>
<td>7.89</td>
<td>7.92</td>
</tr>
<tr>
<td>Open Circuit Voltage Voc (V)</td>
<td>46.7</td>
<td>46.8</td>
</tr>
<tr>
<td>Short Circuit Current Isc (A)</td>
<td>8.48</td>
<td>8.52</td>
</tr>
</tbody>
</table>

² NMOT (Nominal Module Operating Temperature): Irradiance 800 W/m², ambient temperature 20 °C, wind speed 1 m/s, Spectrum AM 1.5.

**Dimensions (mm)**

- **Size of long side**: 1024 x 1024 x 40 mm
- **Size of short side**: 976 x 38.4 x 1024
- **Mounting holes (4ea)**: 8.5 x 12 / 0.3 x 0.5
- **Mounting holes (8ea)**: 8.5 x 12
- **Grounding holes (8ea)**: Ø 4.3 / 0.2
- **Grounding holes (8ea)**: Ø 4.3
- **Cable Length**: 2000 / 7.9
- **Cable Length**: 200 / 7.9
- **Mounting holes (8ea)**: Ø 105 / 4.1
- **Mounting holes (8ea)**: Ø 105 / 4.1
- **Cable Length**: 300 / 11.8
- **Cable Length**: 300 / 11.8
- **Cable Length**: 105 / 4.1
- **Cable Length**: 105 / 4.1
- **300 / 11.8** (Distance between grounding & mounting holes)
- **105 / 4.1** (Distance between grounding & mounting holes)
- **200 / 7.9** (Distance between grounding & mounting holes)
- **200 / 7.9** (Distance between grounding & mounting holes)
- **105 / 4.1** (Distance between grounding & mounting holes)
- **105 / 4.1** (Distance between grounding & mounting holes)
- **105 / 4.1** (Distance between grounding & mounting holes)
- **105 / 4.1** (Distance between grounding & mounting holes)
- **976 / 38.4** (Distance between grounding & mounting holes)
- **976 / 38.4** (Distance between grounding & mounting holes)
- **2024 / 66.4** (Distance between mounting holes)
- **2024 / 66.4** (Distance between mounting holes)
- **1686 / 66.4** (Distance between mounting holes)
- **1686 / 66.4** (Distance between mounting holes)
- **1286 / 50.6** (Distance between mounting holes)
- **1286 / 50.6** (Distance between mounting holes)
- **1086 / 42.8** (Distance between mounting holes)
- **1086 / 42.8** (Distance between mounting holes)
- **812 / 32.0** (Distance between mounting holes)
- **812 / 32.0** (Distance between mounting holes)
- **410 W**
- **415 W**

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