

# INTRODUCING THE STAR PERFORMER LG NeON™<sub>2</sub>

**UPDATE 2016**

**UP TO 320 WATTS**

**LG CELLO DESIGN**

**6000 PASCAL LOAD**



## LG NeON™ 2 – BETTER. MORE EFFICIENT. GUARANTEED.

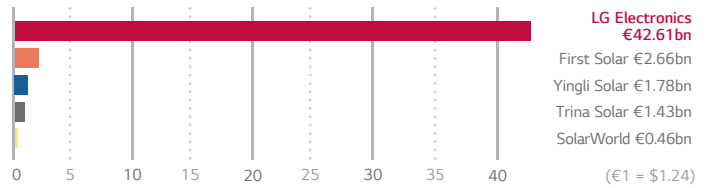
LG's NeON™ 2 solar module now offers even more performance. Featuring a classy new design and with a total of 60 cells, it can withstand a load of 6,000 pascals. LG is extending its product warranty from 10 to 12 years and improving its linear performance guarantee to at least 83.6% of nominal output after 25 years.

### LOCAL GUARANTOR, GLOBAL SECURITY

LG Solar is part of LG Electronics, a global and financially strong company, with over 50 years of experience.

**Good to know:** LG Electronics is the warrantor for your solar modules.

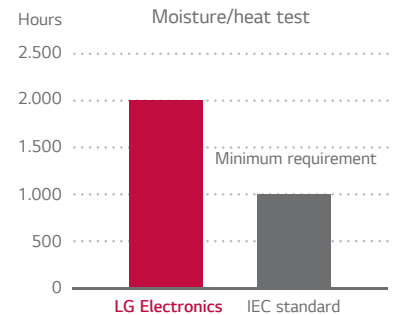
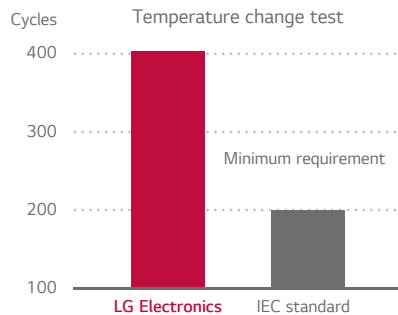
The warrantor's 2013 sales in billions of euros



### EXCELLENT QUALITY, INDEPENDENTLY TESTED

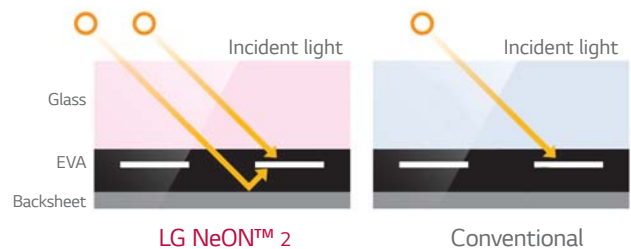
You can rely on LG. We test our products with double the intensity specified in the IEC standard. This quality is valued by installers across Europe, which is why they have awarded our LG solar modules the Top Brand PV stamp of quality for the highest recommendation rates for the third time in a row.

Moreover, they have already received the prestigious Intersolar Award as well as the Plus X Award – one of the biggest innovation awards for technology, sport and lifestyle.



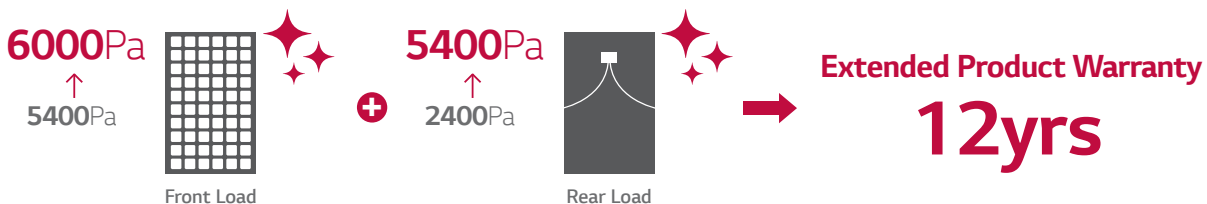
### HIGHER OUTPUT, HIGHER YIELD

Semiconductor industry know-how is used to achieve a more even cell surface and thus increase efficiency up to over 21%. The module can evenly apply incident light from both the front and back of the cell, making LG NeON™ 2 cells more efficient than conventional solar cells and producing a higher yield.



### POWERFUL DESIGN, GUARANTEED ROBUST

With reinforced frame design, LG NeON™ 2 can endure a front load up to 6000 Pa and a rear load up to 5400 Pa. Based on the improved rigidity, LG has extended the product warranty for additional 2 years.

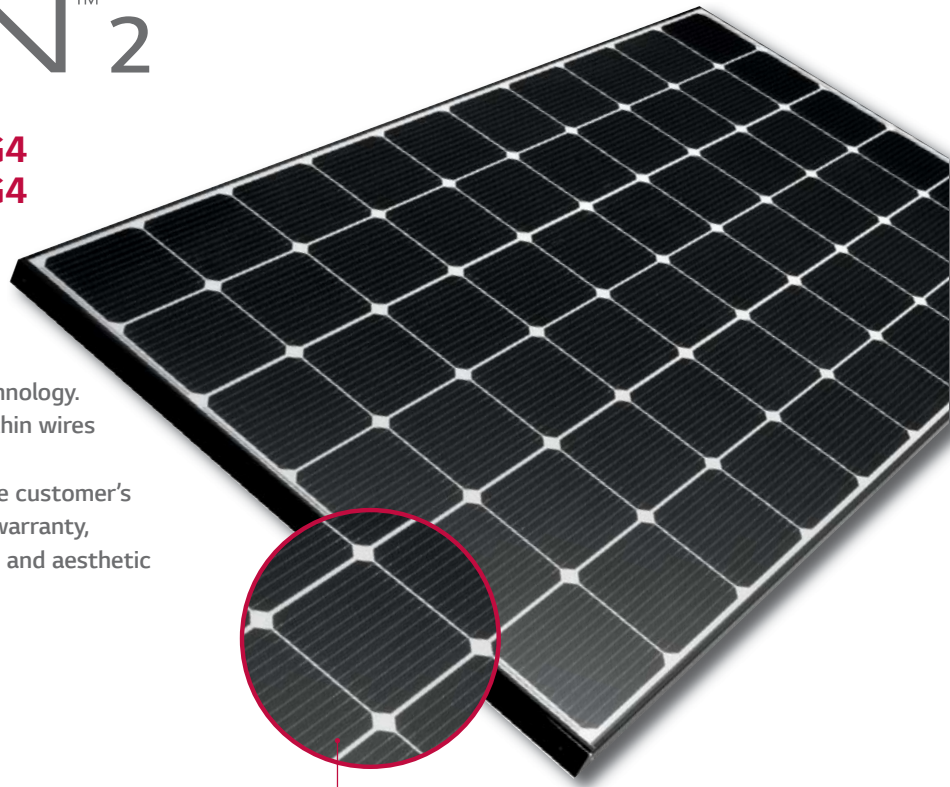


# LG NeON™ 2

LG320N1C-G4 | LG315N1C-G4  
 LG310N1C-G4 | LG305N1C-G4

## 60 Cells

LG's new module, NeON™ 2, adopts CELLO technology. CELLO technology replaces 3 busbars with 12 thin wires to enhance power output and reliability. NeON™ 2 demonstrates LG's efforts to increase customer's values beyond efficiency. It features enhanced warranty, durability, performance under real environment, and aesthetic design suitable for roofs.



→ CELLO technology



## KEY FEATURES



### Enhanced Performance Warranty

LG NeON™ 2 has an enhanced performance warranty. The annual degradation has fallen from -0.7%/year to -0.6%/year. Even after 25 years, the cell guarantees 2.4% more output than the previous NeON™ modules.



### Aesthetic Roof

LG NeON™ 2 has been designed with aesthetics in mind; thinner wires that appear all black at a distance. The product can increase the value of a property with its modern design.



### Better Performance on a Sunny Day

LG NeON™ 2 now performs better on sunny days thanks to its improved temperature coefficient.



### High Power Output

Compared with previous models, the LG NeON™ 2 has been designed to significantly enhance its output efficiency making it efficient even in limited space.



### Outstanding Durability

With its newly reinforced frame design, LG has extended the warranty of the NeON™ 2 for an additional 2 years. Additionally, LG NeON™ 2 can endure a front load up to 6000 Pa, and a rear load up to 5400 Pa.



### Double-Sided Cell Structure

The rear of the cell used in LG NeON™ 2 will contribute to generation, just like the front; the light beam reflected from the rear of the module is reabsorbed to generate a great amount of additional power.

### About LG Electronics

LG Electronics is a global big player, committed to expanding its operations with the solar market. The company first embarked on a solar energy source research program in 1985, supported by LG Group's vast experience in the semi-conductor, LCD, chemistry, and materials industries. In 2010, LG Solar successfully released its first MonoX® series to the market, which is now available in 32 countries. In 2013, the NeON™ (previous MonoX® NeON) won the "Intersolar Award", which demonstrates LG Solar's lead, innovation and commitment to the industry.

### Mechanical Properties

|                        |                                  |
|------------------------|----------------------------------|
| Cells                  | 6 x 10                           |
| Cell Vendor            | LG                               |
| Cell Type              | Monocrystalline / N-type         |
| Cell Dimensions        | 156.75 x 156.75 mm               |
| # of Busbar            | 12 (Multi Wire Busbar)           |
| Dimensions (L x W x H) | 1640 x 1000 x 40 mm              |
| Static Load            | 6000 Pa (snow load)              |
|                        | 5400 Pa (wind load)              |
| Weight                 | 17.0 ± 0.5 kg                    |
| Connector Type         | MC4, IP67                        |
| Junction Box           | IP67 with 3 Bypass Diodes        |
| Length of Cables       | 2 x 1000 mm                      |
| Front cover            | High Transmission Tempered Glass |
| Frame                  | Anodized Aluminum                |

### Certifications and Warranty

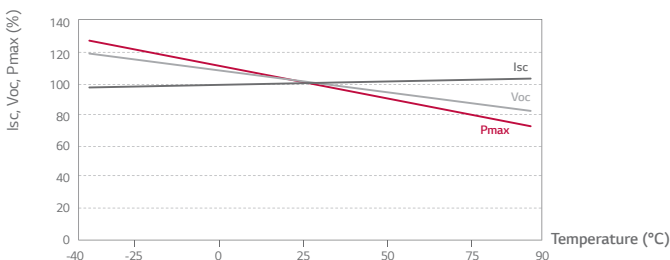
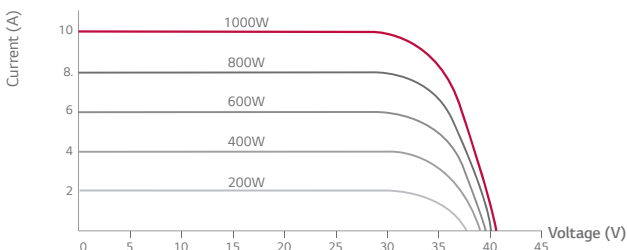
|  |                                       |
|--|---------------------------------------|
| Certifications                                       | IEC 61215, IEC 61730-1/-2             |
|  | IEC 62716 (Ammonia Test)              |
|  | IEC 61701 (Salt Mist Corrosion Test)  |
| Module Fire Performance                              | Class C, Fire Class 1 (Italy)         |
| Product Warranty                                     | 12 Years                              |
| Output Warranty of Pmax (Measurement Tolerance ± 3%) | 25 years linear warranty <sup>1</sup> |

<sup>1</sup> 1) 1st year: 98%, 2) After 2nd year: 0.6% annual degradation, 3) 83.6% for 25 years

### Temperature Coefficients

|      |            |
|------|------------|
| NOCT | 46 ± 3 °C  |
| Pmpp | -0.38 %/°C |
| Voc  | -0.28 %/°C |
| Isc  | 0.03 %/°C  |

### Characteristic Curves



### Electrical Properties (STC<sup>2</sup>)

|                                | 320 W     | 315 W | 310 W | 305 W |
|--------------------------------|-----------|-------|-------|-------|
| MPP Voltage Vmpp (V)           | 33.6      | 33.2  | 32.8  | 32.5  |
| MPP Current Impp (A)           | 9.53      | 9.50  | 9.45  | 9.39  |
| Open Circuit Voltage Voc (V)   | 40.9      | 40.6  | 40.4  | 40.1  |
| Short Circuit Current Isc (A)  | 10.05     | 10.02 | 9.96  | 9.93  |
| Module Efficiency (%)          | 19.5      | 19.2  | 18.9  | 18.6  |
| Operating Temperature (°C)     | -40 ~ +90 |       |       |       |
| Maximum System Voltage (V)     | 1000      |       |       |       |
| Maximum Series Fuse Rating (A) | 20        |       |       |       |
| Power Tolerance (%)            | 0 ~ +3    |       |       |       |

<sup>2</sup> 1) STC (Standard Test Condition): Irradiance 1000 W/m<sup>2</sup>, Module Temperature 25 °C, AM 1.5.

2) The typical change in module efficiency at 200 W/m<sup>2</sup> in relation to 1000 W/m<sup>2</sup> is -2.0%.

3) Application Class: A, Safety Class: II

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

### Electrical Properties (NOCT<sup>3</sup>)

|                               | 320 W | 315 W | 310 W | 305 W |
|-------------------------------|-------|-------|-------|-------|
| Maximum Power Pmax (W)        | 234   | 230   | 226   | 223   |
| MPP Voltage Vmpp (V)          | 30.7  | 30.4  | 30.0  | 29.7  |
| MPP Current Impp (A)          | 7.60  | 7.58  | 7.54  | 7.49  |
| Open Circuit Voltage Voc (V)  | 37.9  | 37.6  | 37.4  | 37.1  |
| Short Circuit Current Isc (A) | 8.10  | 8.08  | 8.03  | 8.01  |

<sup>3</sup> NOCT (Nominal Operating Cell Temperature): Irradiance 800 W/m<sup>2</sup>, ambient temperature 20 °C, wind speed 1 m/s

### Dimensions (mm)

