LG
Life's Good

Innov
a Bet

Reviewed for Code Compliance
Inspections Division
Approved with Conditions

Date: 10/08/15

# LG NeON™ 2

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

## 60 cell

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.

Intertek

APPROVED PRODUCT
MCS
KM 564573 BS EN 61215
Photovoltaic Modules

### Enhanced Performance Warranty

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

### High Power Output

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

### Aesthetic Roof

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

### 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.

### Better Performance on a Sunny Day

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

### 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 player who has been committed to expanding its capacity, based on solar energy business as its future growth engine. We embarked on a solar energy source research program in 1985, supported by LG Group's rich experience in semi-conductor, LCD, chemistry, and materials industry. We successfully released the first Mono X® series to the market in 2010, which were exported to 32 countries in the following 2 years, thereafter. In 2013, NeON™ (previously known as Mono X® NeON) won "Intersolar Award", which proved LG is the leader of innovation in the industry.

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## Mechanical Properties

| | |
|---|---|
| **Cells** | 6 x 10 |
| **Cell Vendor** | LG |
| **Cell Type** | Monocrystalline / N-type |
| **Cell Dimensions** | 156.75 x 156.75 mm / 6 x 6 inch |
| **# of Busbar** | 12 (Multi Wire Busbar) NEW |
| **Dimensions (L x W x H)** | 1640 x 1000 x 40 mm<br>64.57 x 39.37 x 1.57 inch |
| **Front Load** | 6000 Pa / 125 psf NEW |
| **Rear Load** | 5400 Pa / 113 psf NEW |
| **Weight** | 17.0 ± 0.5 kg / 37.48 ± 1.1 lbs |
| **Connector Type** | MC4, MC4 Compatible, IP67 |
| **Junction Box** | IP67 with 3 Bypass Diodes |
| **Length of Cables** | 2 x 1000 mm / 2 x 39.37 inch |
| **Glass** | High Transmission Tempered Glass |
| **Frame** | Anodized Aluminum |

## Certifications and Warranty

| | |
|---|---|
| **Certifications (In Progress)** | IEC 61215, IEC 61730-1/-2, UL 1703,<br>ISO 9001, IEC 62716 (Ammonia Test),<br>IEC 61701(Salt Mist Corrosion Test) |
| **Module Fire Performance** | Type 2 (UL 1703) |
| **Product Warranty** | 12 years NEW |
| **Output warranty of Pmax (measurement Tolerance ± 3%)** | Linear warranty* NEW |

* 1) 1st year: 98%, 2) After 2nd year: 0.6%p annual degradation, 3) 83.6% for 25 years

## Temperature Coefficients

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

## Characteristic Curves

## Electrical Properties (STC *)

| | 320 W | | | |
|---|---|---|---|---|
| **MPP Voltage (Vmpp)** | 33.6 | | | |
| **MPP Current (Impp)** | 9.53 | | | |
| **Open Circuit Voltage (Voc)** | 40.9 | 40.6 | 40.4 | 40.1 |
| **Short Circuit Current (Isc)** | 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 | | | |

* 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.
* The typical change in module efficiency at 200 W/m² in relation to 1000 W/m² is -2.0%.

## Electrical Properties (NOCT*)

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

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

## Dimensions (mm/in)

* The distance between the center of the mounting/grounding holes.


LG Life's Good

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Product specifications are subject to change without notice.
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