

## LG NeON<sup>®</sup> 2 Black

LG315N1K-A5

60 cell

LG's new module, LG NeON<sup>®</sup> 2, adopts Cello technology. Cello technology replaces 3 busbars with 12 thin wires to enhance power output and reliability. LG NeON<sup>®</sup> 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.



### Enhanced Performance Warranty

LG NeON<sup>®</sup> 2 Black has an enhanced performance warranty. The annual degradation has fallen from -0.6%/yr to -0.5%/yr. Even after 25 years, the cell guarantees 2.4% more output than the previous LG NeON<sup>®</sup> 2 modules.



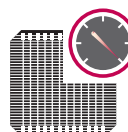
### High Power Output

Compared with previous models, the LG NeON<sup>®</sup> 2 Black has been designed to significantly enhance its output efficiency, thereby making it efficient even in limited space.



### Roof Aesthetics

LG NeON<sup>®</sup> 2 Black has been designed with aesthetics in mind, using thinner wires that appear all black at a distance.



### Outstanding Durability

With its newly reinforced frame design, LG has extended the warranty of the LG NeON<sup>®</sup> 2 Black for an additional 3 years. Additionally, LG NeON<sup>®</sup> 2 Black can endure a front load up to 6000 Pa, and a rear load up to 5400 Pa.



### Improved Performance on Sunny Days

LG NeON<sup>®</sup> 2 Black now performs better on sunny days, thanks to its improved temperature coefficient.



### Double-Sided Cell Structure

The rear of the cell used in the LG NeON<sup>®</sup> 2 Black contributes to generation, just like the front; the light beam reflected from the rear of the module is reabsorbed to generate additional power.

#### About LG Electronics

LG Electronics is a global player who has been committed to expanding its operations with the solar market. The company first embarked on a solar energy source research programs 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 Mono X<sup>®</sup> series to the market, which is now available in 32 countries. The LG NeON<sup>®</sup> (previously known as Mono X<sup>®</sup> NeON) and the LG NeON<sup>®</sup> 2 won the "Intersolar Award" in 2013 and 2015, which demonstrates LG Solar's lead, innovations and commitment to the industry.

### Mechanical Properties

Cells	6 x 10
Cell Vendor	LG
Cell Type	Monocrystalline / N-type
Cell Dimensions	161.7 x 161.7 mm / 6 inches
# of Busbar	12 (Multi Wire Busbar)
Dimensions (L x W x H)	1686 x 1016 x 40 mm 66.38 x 40 x 1.57 inch
Front Load	6000 Pa
Rear Load	5400 Pa
Weight	18 kg
Connector Type	MC4
Junction Box	IP68 with 3 Bypass Diodes
Length of Cables	1000 mm x 2 ea
Glass	Tempered Glass with AR Coating
Frame	Anodized Aluminum

### Certifications and Warranty

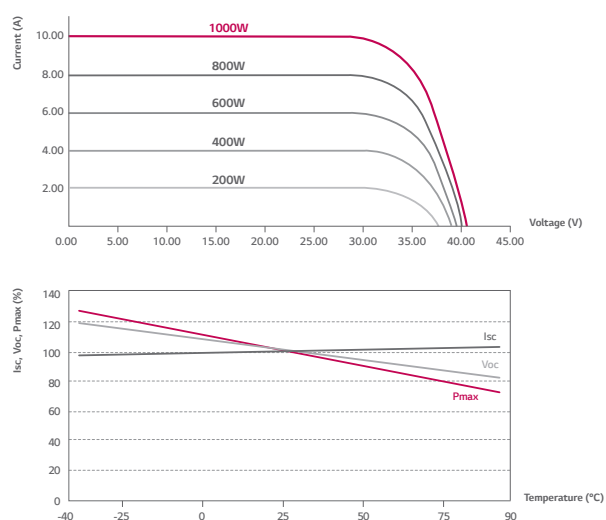
Certifications	IEC 61215, IEC 61730-1/-2 UL 1703 IEC 61701 (Salt mist corrosion test) IEC 62716 (Ammonia corrosion test) ISO 9001
Module Fire Performance (USA)	Type 2
Fire Rating (for CANADA)	Class C
Product Warranty	25 years
Output Warranty of P <sub>max</sub>	Linear warranty**

\*\* 1) 1st year : 98%, 2) After 1st year : 0.5% annual degradation, 3) 25 years : 86 %

### Temperature Characteristics

NOCT	45 ± 3 °C
P <sub>mpp</sub>	-0.37 %/°C
V <sub>oc</sub>	-0.27 %/°C
I <sub>sc</sub>	0.03 %/°C

### Characteristic Curves



### Electrical Properties (STC \*)

Module	LG315N1K-A5
Maximum Power (P <sub>max</sub> )	315
MPP Voltage (V <sub>mpp</sub> )	32.9
MPP Current (I <sub>mpp</sub> )	9.58
Open Circuit Voltage (V <sub>oc</sub> )	40.7
Short Circuit Current (I <sub>sc</sub> )	10.15
Module Efficiency	18.4
Operating Temperature	-40 ~ +90
Maximum System Voltage	1,000
Maximum Series Fuse Rating	20
Power Tolerance (%)	0 ~ +3

\* STC (Standard Test Condition): Irradiance 1,000 W/m<sup>2</sup>, Ambient 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/m<sup>2</sup> in relation to 1000 W/m<sup>2</sup> is -2.0%.

### Electrical Properties (NOCT\*)

Module	LG315N1K-A5
Maximum Power (P <sub>max</sub> )	232
MPP Voltage (V <sub>mpp</sub> )	30.4
MPP Current (I <sub>mpp</sub> )	7.63
Open Circuit Voltage (V <sub>oc</sub> )	37.9
Short Circuit Current (I <sub>sc</sub> )	8.17

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

### Dimensions (mm/in)

