

# STELLAR PERFORMER, GREAT LOOKER

LG NeON™ 2Black

**UPDATE 2017**

**UP TO 320 WATTS**

**TOTALLY BLACK**

**LG CELLO DESIGN**



## LG NeON™ 2 BLACK – ELEGANT DESIGN. CLEAN ENERGY.

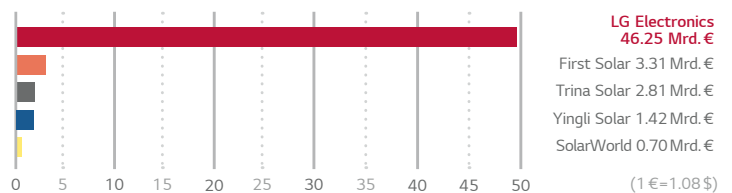
As its name suggests, the monocrystalline LG NeON™ 2 Black solar module is completely black. Its discreet design means it can easily be integrated into any house roof. And the new Cello technology delivers a reliable output up to 320 Wp.

### LOCAL GUARANTOR, GLOBAL SECURITY

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

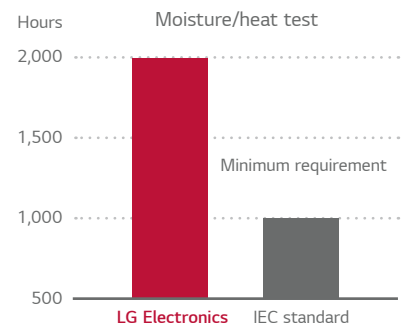
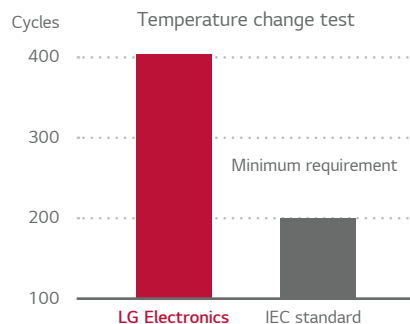
**Good to know:** LG Electronics is the warrantor for your solar modules. LG Electronics has been present in Europe with many local subsidiaries for decades.

The warrantor's 2015 sales in billions of euros



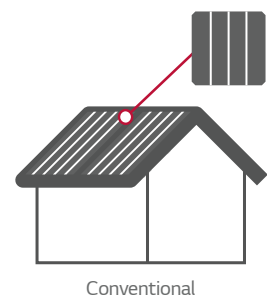
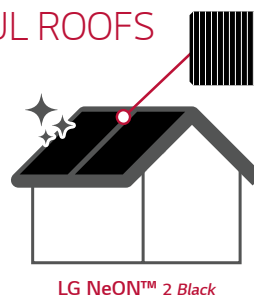
### EXCELLENT QUALITY, INDEPENDENTLY TESTED

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 fourth time in a row.



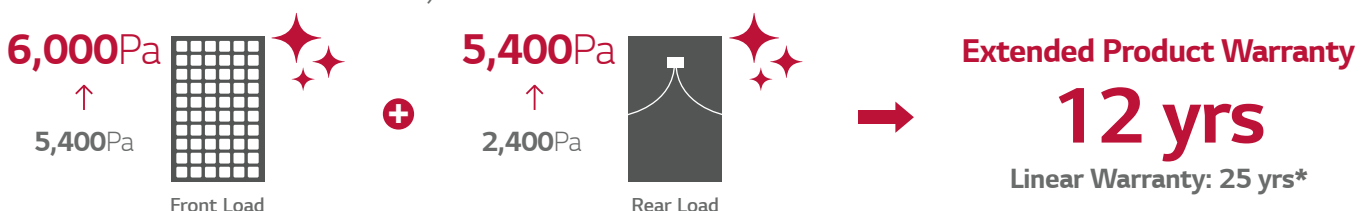
### UNDERSTATED ELEGANCE FOR BEAUTIFUL ROOFS

The LG NeON™ 2 Black solar module featuring a black anodized frame and black back sheet has been designed with improved aesthetics. Thanks to the use of thinner wires, it now looks totally black even from a distance. Its elegant design will fit in easily with the appearance of your home and may increase its value.



### POWERFUL DESIGN, GUARANTEED ROBUST

With reinforced frame design, LG NeON™ 2 Black can endure a front load up to 6,000Pa (represents snow height of normal snow of more than 1,8 meters) and a rear load up to 5,400Pa (represents wind speed of up to 93 m/s, compare max. wind speed of Hurricane Katrina 2005 of max. 75 m/s).



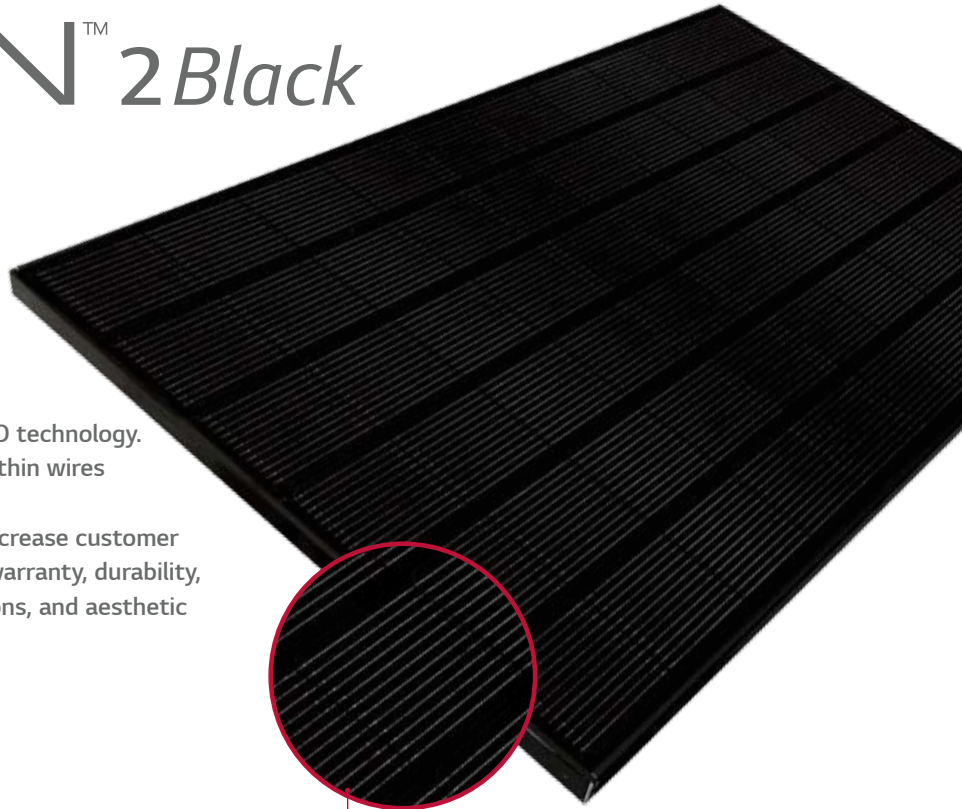
\* 1) 1st year: 98% 2) After 2nd year: 0.55%p annual degradation 3) 84.8% for 25 years

# LG NeON™ 2 Black

**LG320N1K-A5**  
**LG315N1K-A5**

## 60 Cells

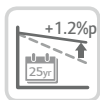
LG's new module, NeON™ 2 Black, adopts CELLO technology. CELLO technology replaces 3 busbars with 12 thin wires to enhance power output and reliability. NeON™ 2 Black demonstrates LG's efforts to increase customer value beyond efficiency. It features enhanced warranty, durability, performance under real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



CELLO technology



## KEY FEATURES



### Enhanced Performance Warranty

LG NeON™ 2 Black has an enhanced performance warranty. The annual degradation has fallen from -0.6%/year to -0.55%/year. Even after 25 years, the cell guarantees 1.2% more output than the previous NeON™ modules.



### High Power Output

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



### Aesthetic Roof

LG NeON™ 2 Black 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.



### Outstanding Durability

With its newly reinforced frame design, LG has extended the warranty of the NeON™ 2 Black for an additional 2 years. Additionally, LG NeON™ 2 Black can endure a front load up to 6,000Pa, and a rear load up to 5,400Pa.



### Better Performance on a Sunny Day

LG NeON™ 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 LG NeON™ 2 Black 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. The LG NeON® (previous MonoX® NeON), NeON®2, NeON®2 BiFacial won the "Intersolar AWARD" in 2013, 2015 and 2016, which demonstrates LG Solar's lead, innovation and commitment to the industry.

<sup>1</sup> In progress.

## Mechanical Properties

Cells	6 x 10
Cell Vendor	LG
Cell Type	Monocrystalline / N-type
Cell Dimensions	161.7 x 161.75 mm
# of Busbar	12 (Multi Wire Busbar)
Dimensions (L x W x H)	1,686 x 1,016 x 40 mm
Static Load	6,000Pa (snow load)
	5,400Pa (wind load)
Weight	18 kg
Connector Type	MC4, JM601A
Junction Box	IP68 with 3 Bypass Diodes
Length of Cables	2 x 1,000 mm
Front cover	High Transmission Tempered Glass
Frame	Anodized Aluminum

## Certifications and Warranty

Certifications	IEC 61215 <sup>1</sup> , IEC 61730-1/-2 <sup>1</sup>
	IEC 62716 (Ammonia Test)
	IEC 61701 (Salt Mist Corrosion Test) <sup>1</sup>
	ISO 9001
Module Fire Performance	Class C, Fire Class 2 (Italy) <sup>1</sup>
Product Warranty	12 Years
Output Warranty of Pmax (Measurement Tolerance ± 3%)	25 years linear warranty <sup>2</sup>

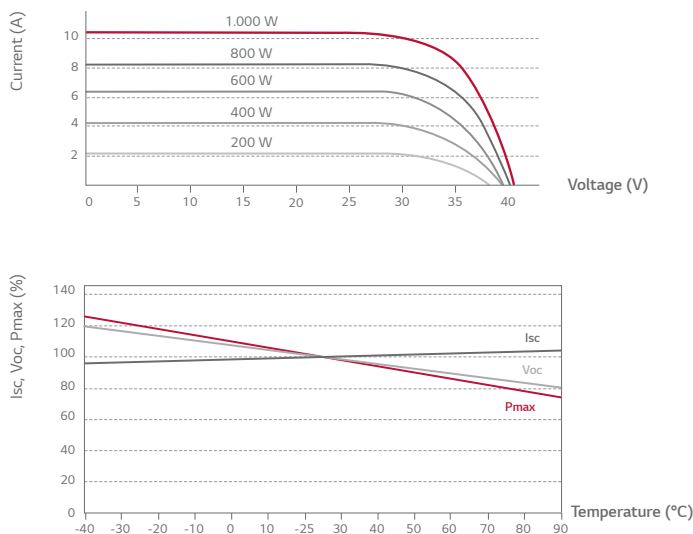
<sup>1</sup> In progress.

<sup>2</sup> 1st year: 98%, 2) After 2nd year: 0.55%p annual degradation, 3) 84.8% for 25 years

## Temperature Coefficients

NOCT	45 ± 3 °C
Pmpp	-0.37 %/°C
Voc	-0.27 %/°C
Isc	0.03 %/°C

## Characteristic Curves



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

Model		LG320N1K-A5	LG315N1K-A5
Maximum Power Pmax	[W]	320	315
MPP Voltage Vmpp	[V]	33.3	32.9
MPP Current Impp	[A]	9.62	9.58
Open Circuit Voltage Voc	[V]	40.8	40.7
Short Circuit Current Isc	[A]	10.19	10.15
Module Efficiency	[%]	18.7	18.4
Operating Temperature	[°C]	-40 ~ +90	
Maximum System Voltage	[V]	1,000	
Maximum Series Fuse Rating	[A]	20	
Power Tolerance	[%]	0 ~ +3	

<sup>3</sup> 1) STC (Standard Test Condition): Irradiance 1,000 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 1,000 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>4</sup>)

Model		LG320N1K-A5	LG315N1K-A5
Maximum Power Pmax (W)	[W]	236	232
MPP Voltage Vmpp (V)	[V]	30.8	30.4
MPP Current Impp (A)	[A]	7.67	7.63
Open Circuit Voltage Voc (V)	[V]	38.0	37.9
Short Circuit Current Isc (A)	[A]	8.20	8.17

<sup>4</sup> NOCT (Nominal Operating Cell Temperature): Irradiance 800 W/m<sup>2</sup>, ambient temperature 20 °C, wind speed 1 m/s

## Dimensions (mm)

