

Innovation for a Better Life

LG Solar

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<http://lg-solar.com>

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* The contents can be changed without notice.

2019 PRODUCT CATALOG

Technological Innovation – an imperative for sustainable renewable energy.

Solar energy has grown exponentially thanks to rapidly improving technology and growing public interest. Because photovoltaic (PV) modules have an average lifespan of several decades, choosing a well-built product from a trusted brand is crucial. Through 30 years of diligent solar research and development, LG relentlessly leads the industry with PV modules that are unparalleled in quality and performance. LG, as a trusted global brand, is a reliable partner for your business.



Innovation for a Better Life
Best Partner for Your Life



Contents

Why LG Solar?

- Brand Power
- Leading Technology
- Quality

LG NeON® Series

- LG NeON® R
- LG NeON® 2 / LG NeON® 2 Black
- LG NeON® 2 BiFacial

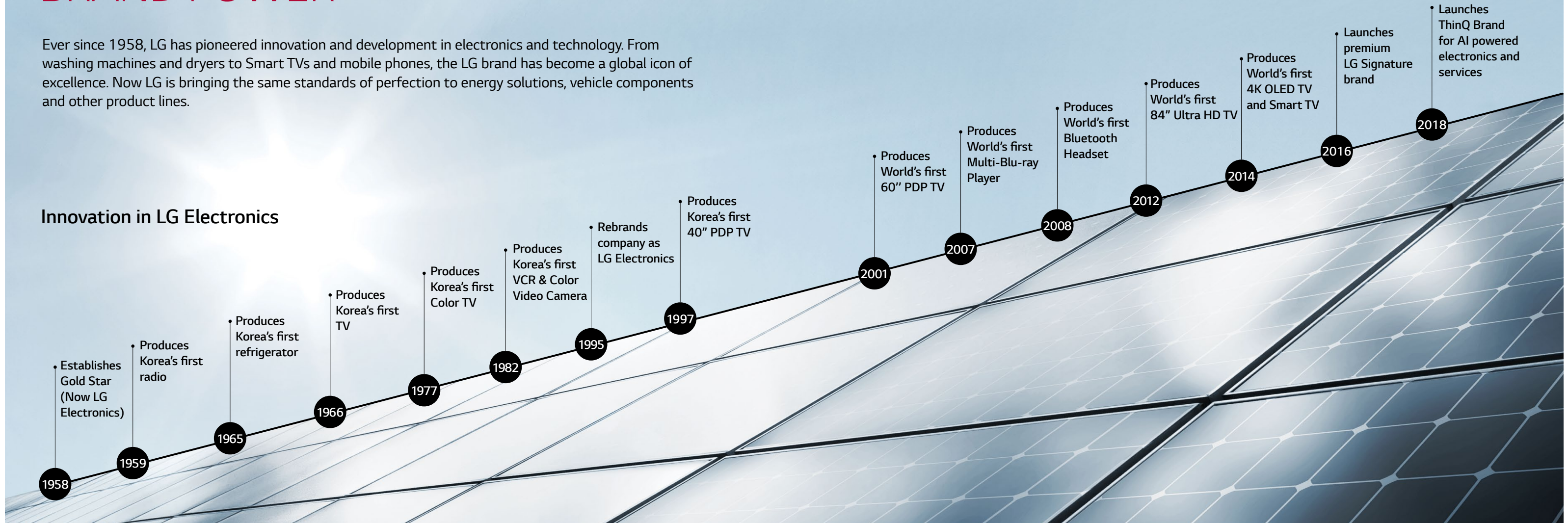
Reference

Contact Us

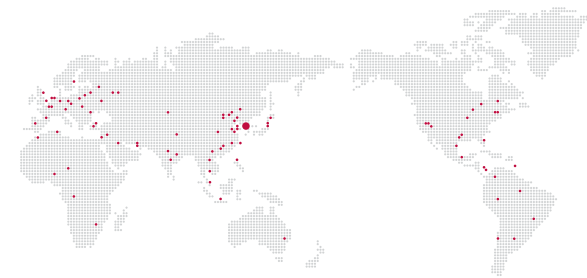
BRAND POWER

Ever since 1958, LG has pioneered innovation and development in electronics and technology. From washing machines and dryers to Smart TVs and mobile phones, the LG brand has become a global icon of excellence. Now LG is bringing the same standards of perfection to energy solutions, vehicle components and other product lines.

Innovation in LG Electronics



LG Electronics is a truly global company with a presence in 118 locations around the world and more than 75,000 employees.



REVENUE

\$55.4 billion (2018)

Workforce

75,150

World Presence

118 Global Operations

LG Energy Solutions

LG offers solar modules, energy storage systems (ESS), and energy management systems (EMS).

SOLAR

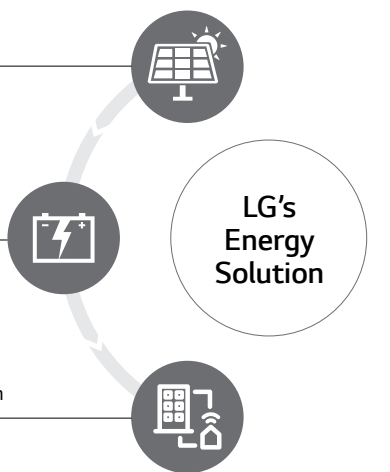
High efficiency module that generates more energy

ESS Energy Storage System

Stable electricity flow with high system efficiency

EMS Energy Management System

Home, building, and factory energy management solutions.

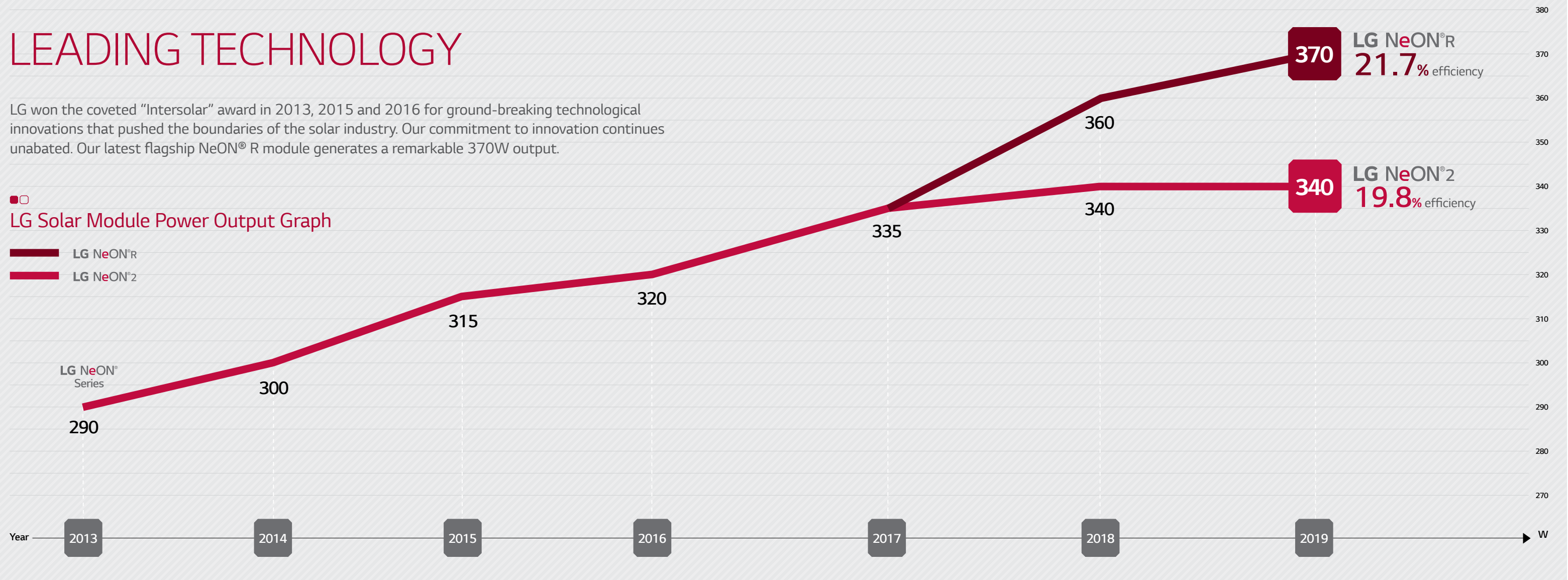


LEADING TECHNOLOGY

LG won the coveted "Intersolar" award in 2013, 2015 and 2016 for ground-breaking technological innovations that pushed the boundaries of the solar industry. Our commitment to innovation continues unabated. Our latest flagship NeON® R module generates a remarkable 370W output.

LG Solar Module Power Output Graph

- LG NeON®R
- LG NeON®2



LG Solar Awards & Innovation in Technology

2013

N-type Cell

N-type cells convert sunlight into energy more efficiently than P-type cells. In addition, the back side of the cell also generates electricity.

2015

Cello Technology™

Cello technology™ uses 12 wires, spreading the current more evenly and reducing electrical resistance compared to conventional 4 ribbons.

2016

Bifacial Module

NeON® 2 BiFacial is capable of generating electricity from both the front and back side of the module, allowing up to 30% more electricity generation than standard modules.

2017 / 2018

Back Contact Type Module

All electrodes are located on the back side, improving sunlight absorption.

QUALITY

A commitment to quality is the very essence of LG's product philosophy. To this end, we have designed our solar modules to remain robust even in less-than-ideal operating conditions such as high temperatures or low irradiance. With LG panels, customers can be sure to generate more energy for longer.

Operational Excellence & Testing Facilities

LG solar modules are built in a fully automated, state-of-the-art production line to maintain the utmost precision and quality. Furthermore, LG is the first corporation in the world to operate in-house solar testing facilities certified by the four leading inspection and certification authorities.



Equipment Installation

Equipment Design

Equipment Assembly

Process Design

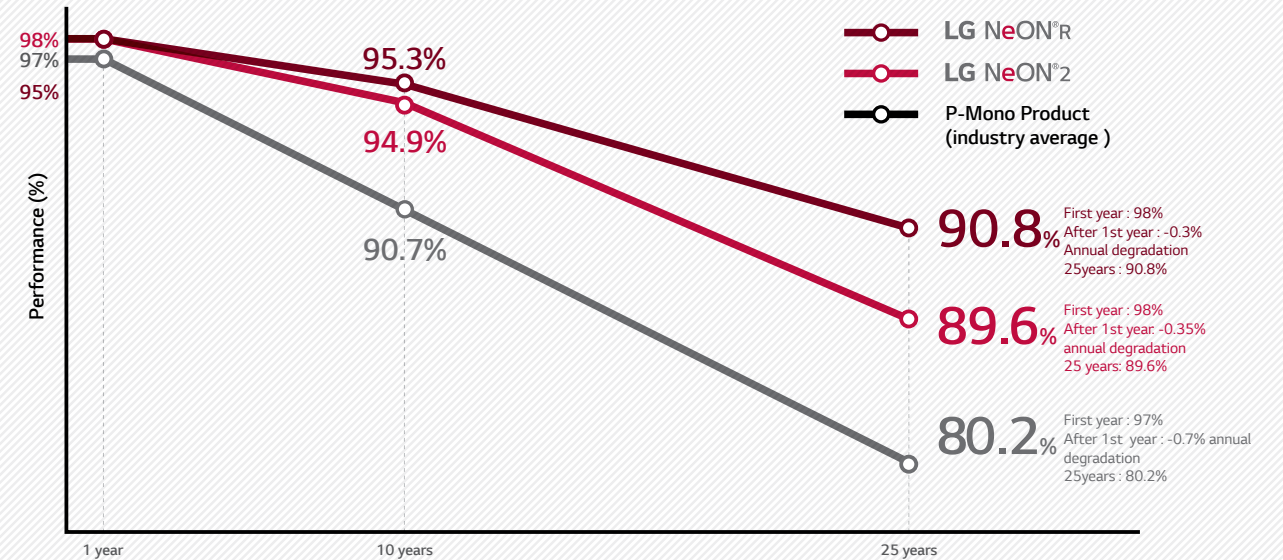
Automated Production Line

Uniform High Quality

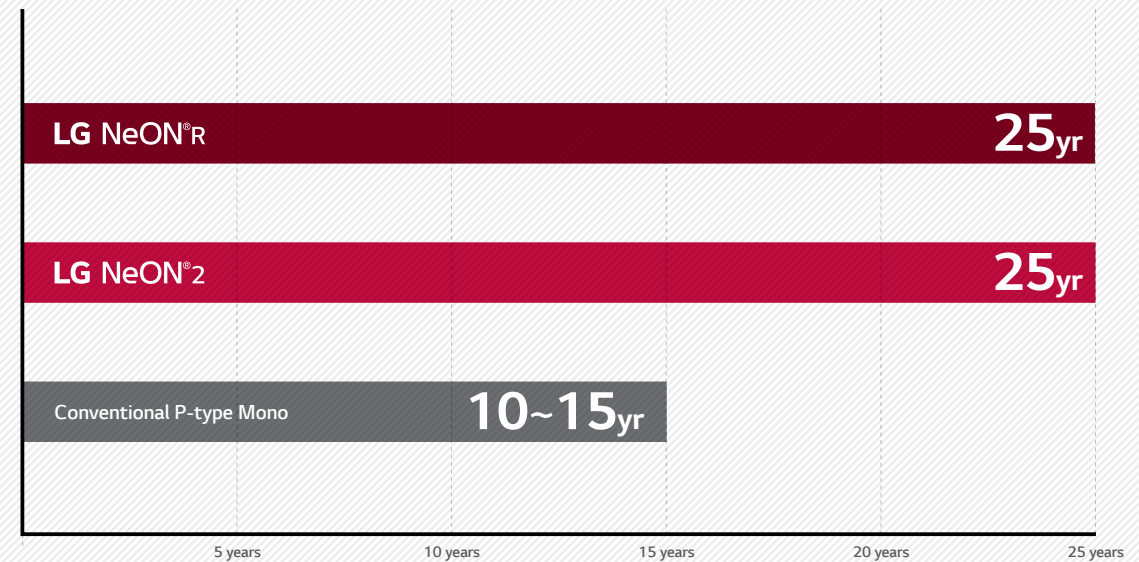
Superior Performance and Product Warranties

LG offers industry-leading performance and product warranties, thereby giving customers the peace of mind to make a long term investment in clean, reliable solar energy.

Output Warranty



Product Warranty

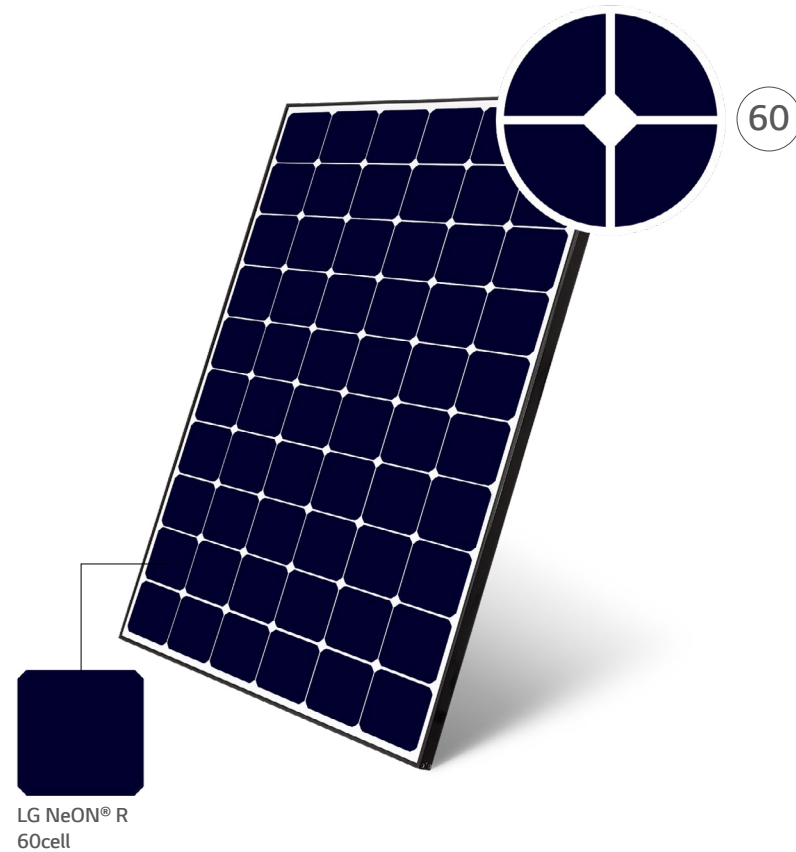


LG NeON[®] R



World's Highest Power Class

The LG NeON[®] R features the highest and most efficient energy generation technology that LG has ever produced. A revolutionary new cell structure that moves the electrodes to the back of the panel ensures both higher light absorption and a cleaner design.



Technical Data

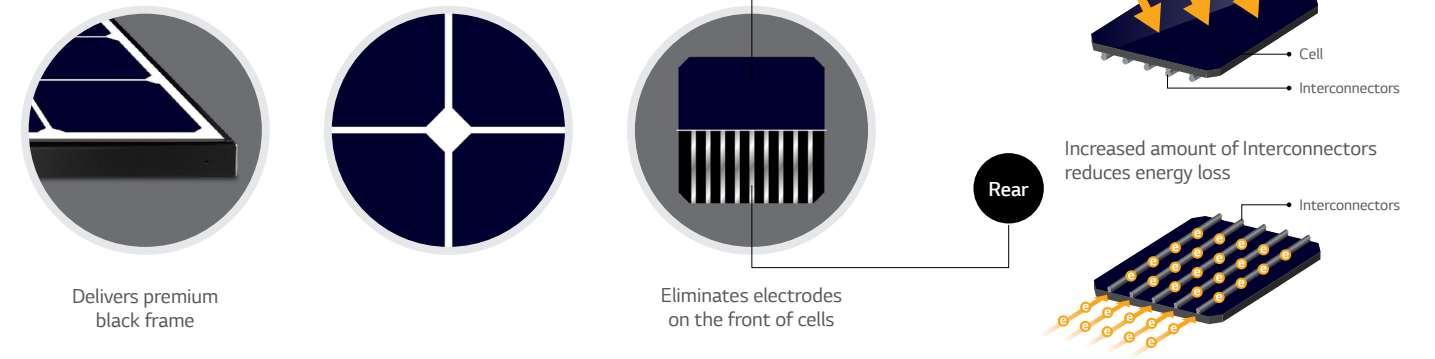
Product Model	LG NeON [®] R 60cell	
Cell Type	Monocrystalline / N-type	
# of Cells	60cell (6 x 10)	
Maximum Power	370W	365W
Module Efficiency	21.4%	21.1%
Dimensions (L x W x H)	1,700 x 1,016 x 40 mm	
Weight	17.5kg	
Output Warranty of Pmax	Linear Warranty First year : 98%, After 1 st year : 0.3% annual degradation, 25years : 90.8%	
Product Warranty	25years	



Features

Technical Features

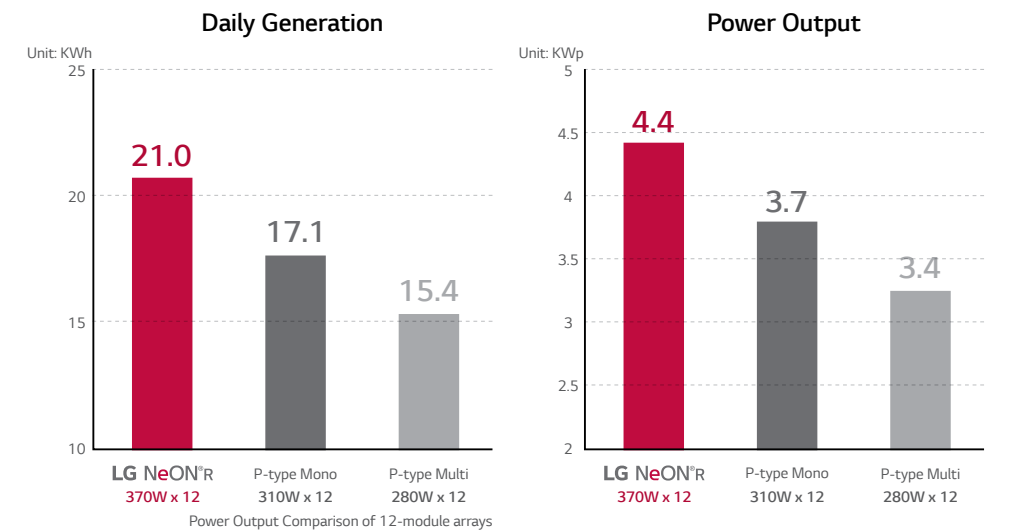
The LG NeON[®] R has been designed with sleek appeal at the forefront. The metal electrodes have been re-located to the back side of the panel. The result is a clean, sleek panel that blends in seamlessly on rooftops and can thereby help increase property values.



High efficiency advantage

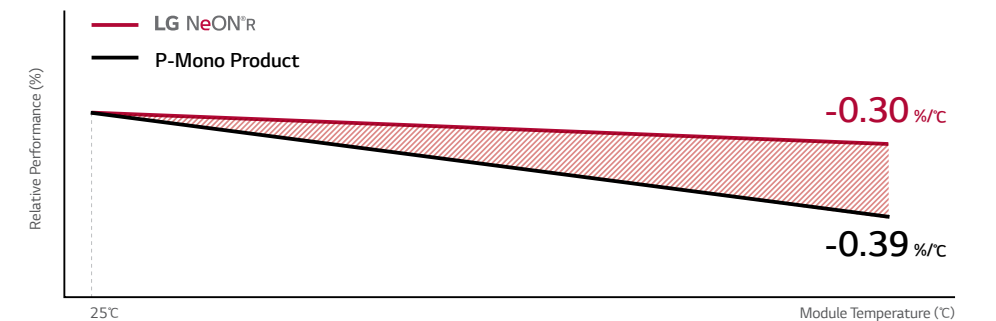
The high efficiency of the LG NeON[®] R module allows more energy to be generated from the same number of panels. Alternatively, fewer modules are needed to meet a given energy requirement. This flexibility allows customers the option to expand the system in the future.

Pvsyst V6.78
San Jose, CA, USA
Source: PAN file, datasheet



Superior temperature coefficient

The NeON[®] R is less sensitive to temperature variations than conventional p-mono panels. The hotter the weather, the bigger the gap between the Neon[®] R and conventional p-mono panels.

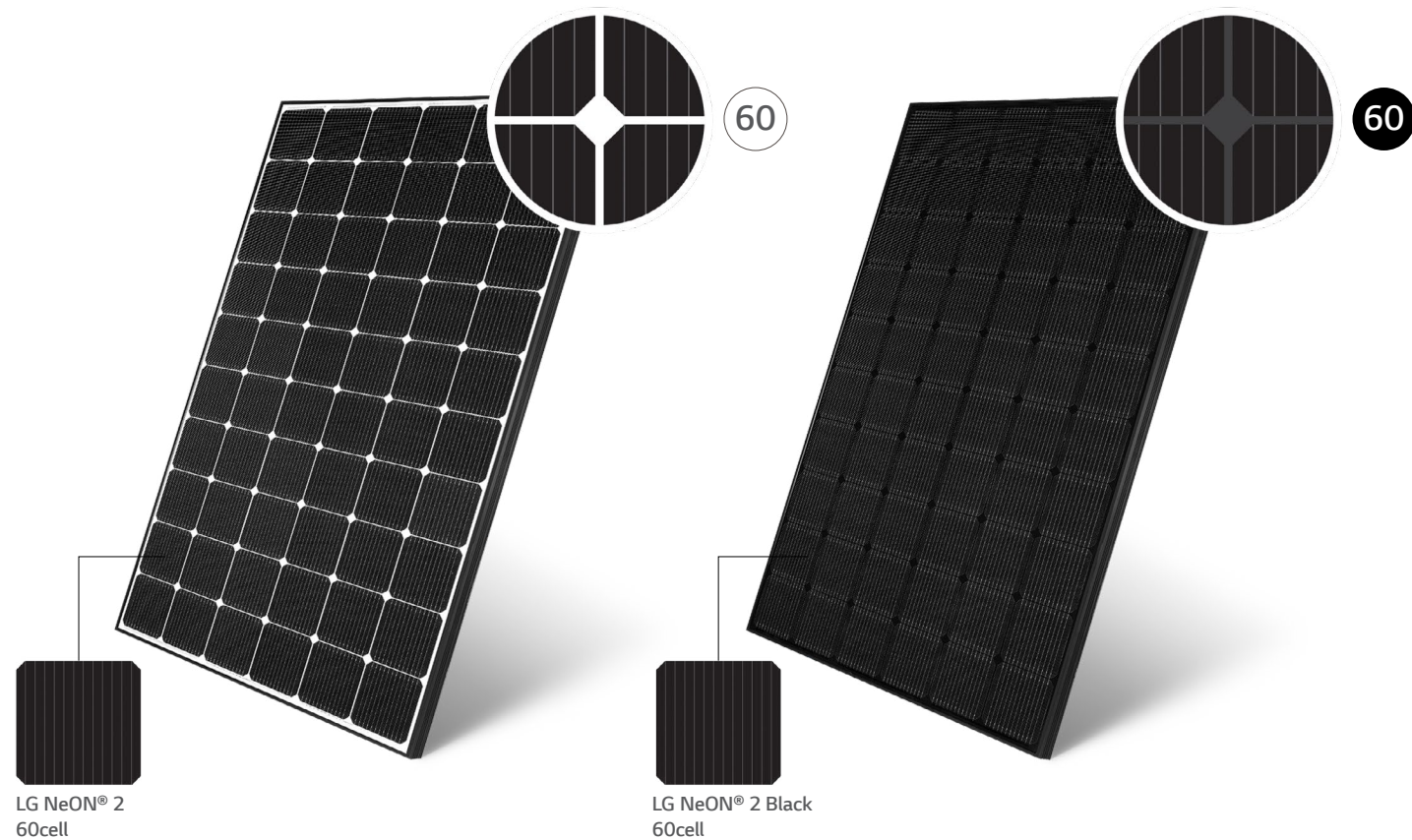


LG NeON[®] 2 60 cell | LG NeON[®] 2 Black 60 cell



LG's Flagship Module

The LG NeON[®] 2 is LG's flagship solar module. It received the acclaimed 2015 Intersolar award for featuring LG's Cello Technology[™], which improves performance and makes the LG NeON[®] 2 one of the most powerful and versatile modules on the market.



Technical Data

Product Model	LG NeON [®] 2 60cell		LG NeON [®] 2 Black 60cell		
Cell Type	Monocrystalline / N-type		Monocrystalline / N-type		
# of Cells	60cell (6 x 10)		60cell (6 x 10)		
Maximum Power	340W	335W	330W	325W	320W
Module Efficiency	19.8%	19.6%	19.3%	19.0%	18.7%
Dimensions (L x W x H)	1,686 x 1,016 x 40 mm		1,686 x 1,016 x 40 mm		
Weight	17.1kg		17.1kg		
Output Warranty of Pmax	Linear Warranty (First year : 98%, After 1st year : 0.35% annual degradation, 25years : 89.6%)				
Product Warranty	25years				

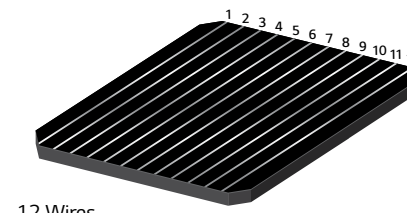


Features

Technical Feature



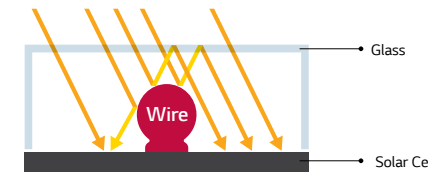
Cello Technology[™]



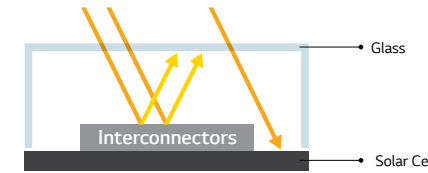
12 Wires

Increased Light Absorption

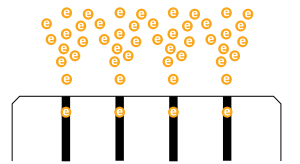
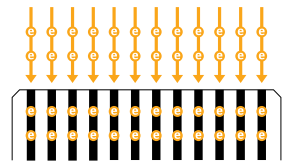
LG NeON[®] 2



Conventional Ribbon Product



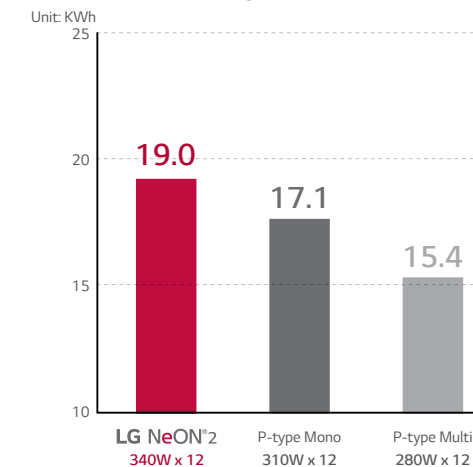
Reduced Electricity Loss



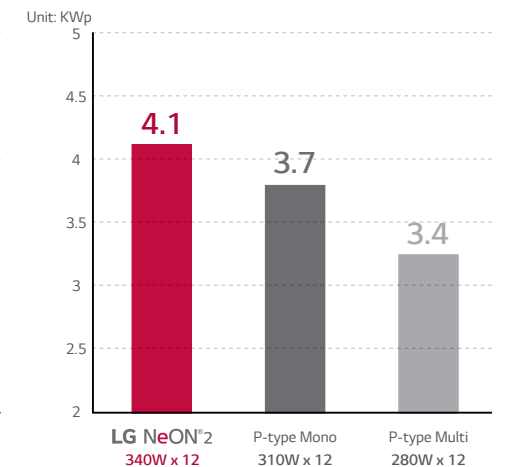
High Power Module

The LG NeON[®] 2 produces more energy than conventional P-type modules, allowing energy requirements to be met in a smaller footprint.

Daily Generation



Power Output

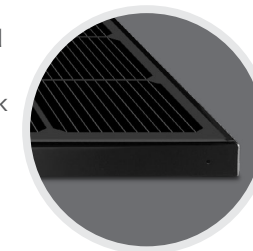


Pvsyst V6.78
San Jose, CA, USA
Source: PAN file, datasheet

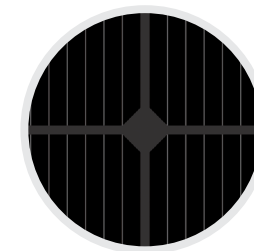
Power Output Comparison of 12-module arrays

Aesthetic All-Black Module

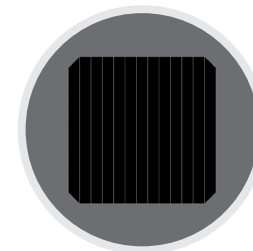
The LG NeON[®] 2 black is built around the black theme. Designed with a sophisticated matte black frame, a black back sheet, and black cells with thin electrodes, this module is perfectly suited to any rooftop.



Matte Black Frame



Black Back sheet



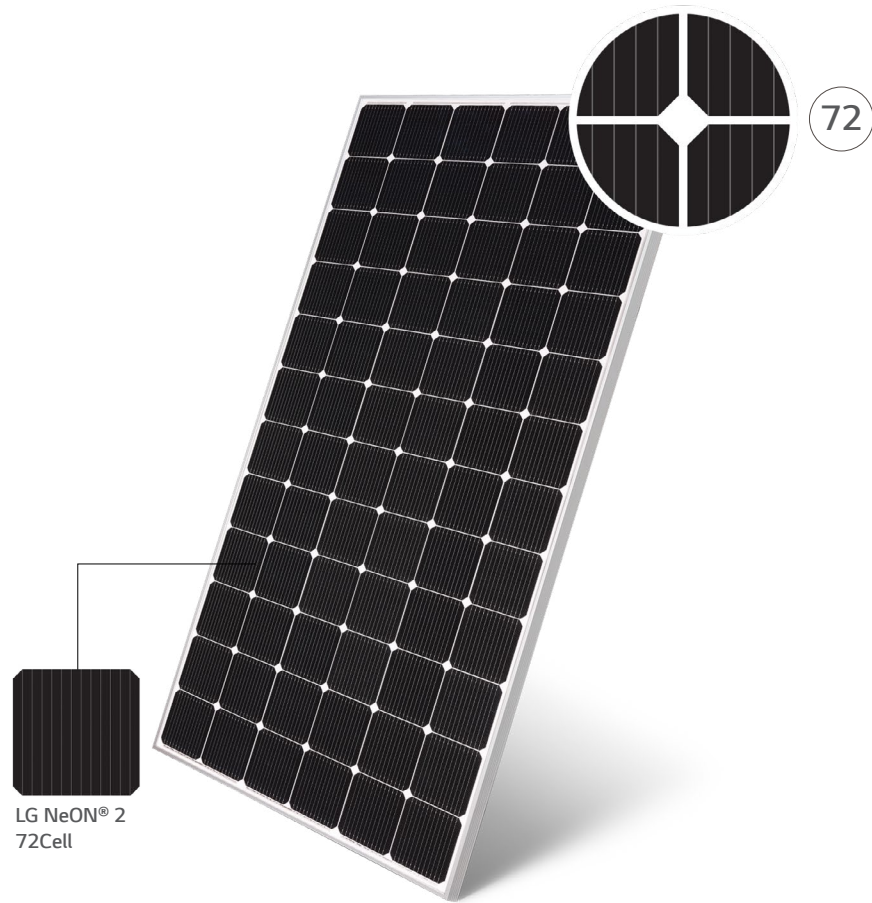
Black Cell with Cello Technology

LG NeON[®] 2 72 cell



LG's Best-selling Module

The LG NeON[®] 2 is LG's best-selling solar module. It received the acclaimed 2015 Intersolar AWARD for featuring LG's Cello Technology™ which increases its power output and reliability making it one of the most powerful and versatile modules on the market.



Technical Data

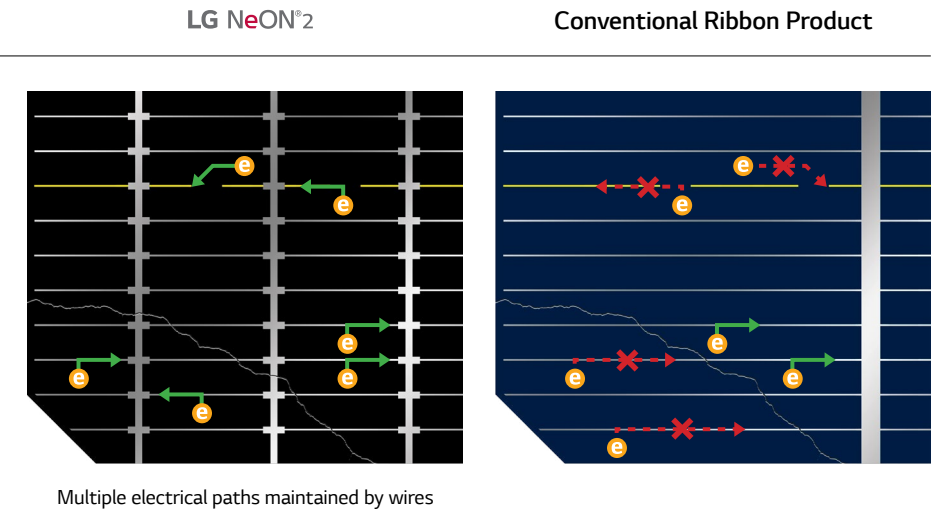
Product Model	LG NeON [®] 2 72Cell	
Cell Type	Monocrystalline / N-type	
# of Cells	72cell (6 x 12)	
Maximum Power	400W	395W
Module Efficiency	19.3%	19.1%
Dimensions (L x W x H)	2,024 x 1,024 x 40 mm	
Weight	20.3kg	
Output Warranty of Pmax	Linear Warranty (First year : 98%, After 1st year : 0.35% annual degradation, 25years : 89.6%)	
Product Warranty	25years	



Features

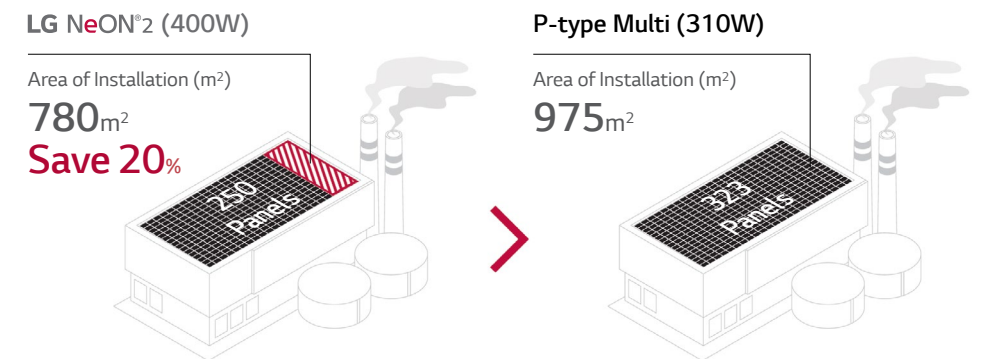
Enhanced Long-term Reliability

When micro-cracks or finger electrode erosion occurs due to external factors, the layout of wires helps mitigate the performance loss caused by blocked electrical pathways.



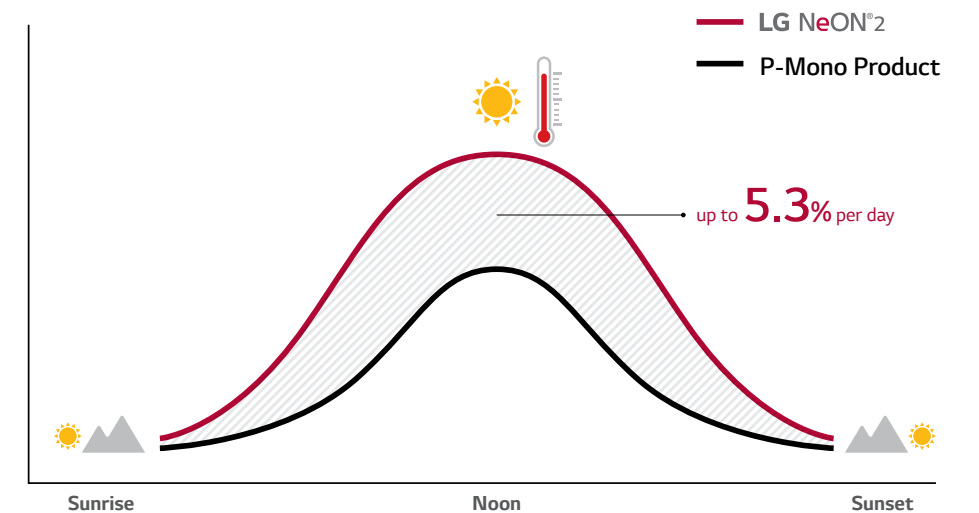
High Power Module

The LG NeON[®] 2 produces more electricity than conventional P-type modules, allowing you to make more energy in less space.



Strong Performance Throughout the Day

N type based technology has a better temperature coefficient and generates a much higher yield than nameplate and/or P type based technology.



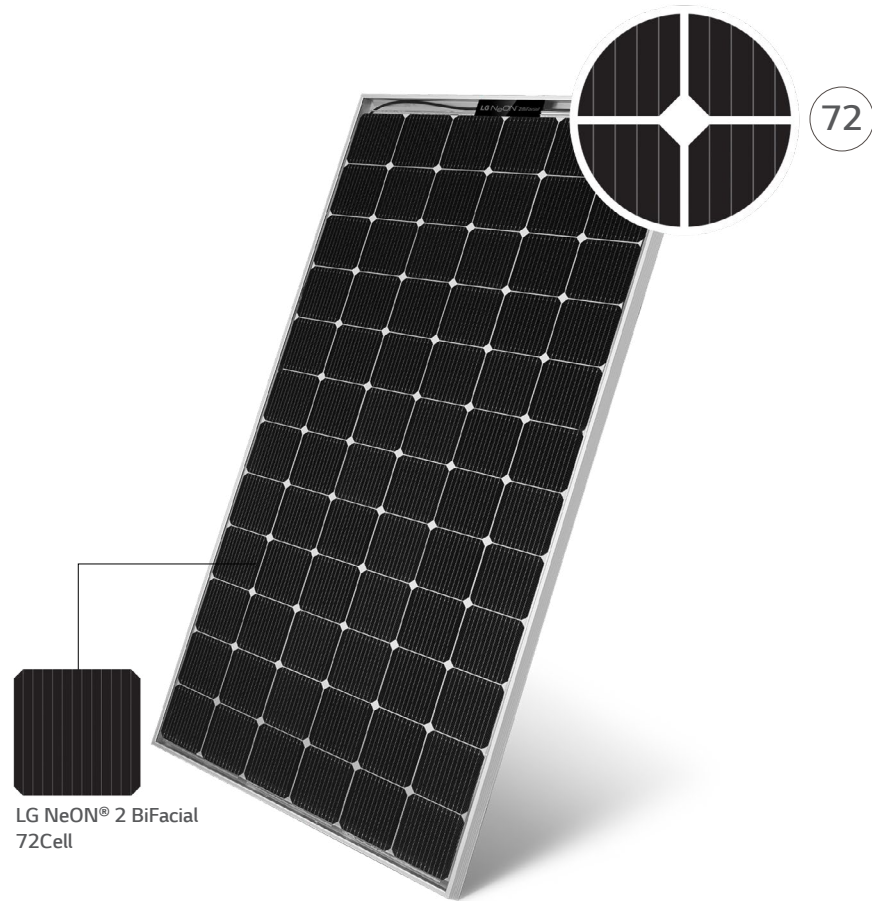
PVsyst V6.78
San Jose, CA, USA
Up to 5.3% in a year
Source: PAN file, datasheet

LG NeON[®] 2 BiFacial



Double-sided Generation At Its Best

The LG NeON[®] 2 BiFacial is designed with a transparent back sheet to absorb sunlight from both the front and the back of the cell. This increases the amount of sunlight that is collected, improving energy generation.



Technical Data

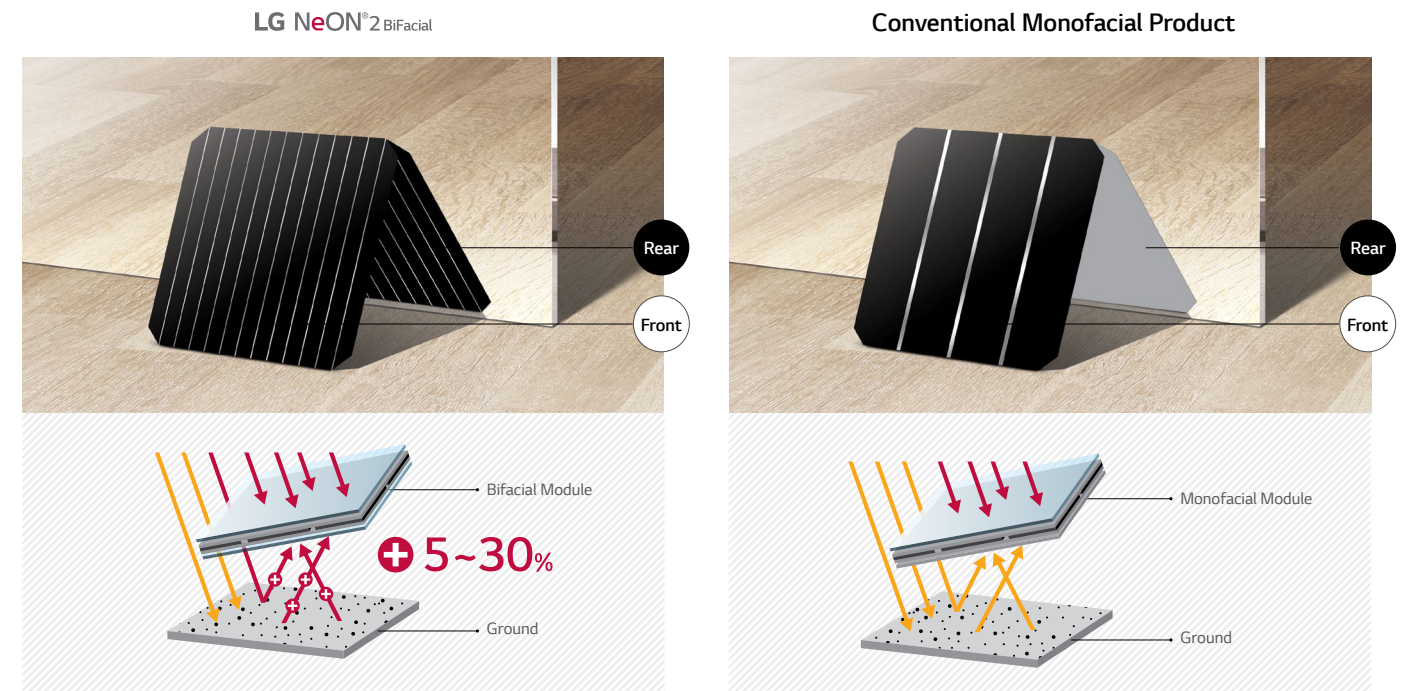
Product Model	LG NeON [®] 2 BiFacial	
Cell Type	Monocrystalline / N-type	
# of Cells	72cell (6 x 12)	
Maximum Power	395W	390W
Module Efficiency	18.7%	18.5%
Dimensions (L x W x H)	2,064 x 1,024 x 40 mm	
Weight	22.1kg	
Output Warranty of Pmax	Linear Warranty (First year : 98%, After 1st year : 0.5% annual degradation, 25years : 86%)	
Product Warranty	25years	



Features

N-type Cell (double-sided generation cell structure)

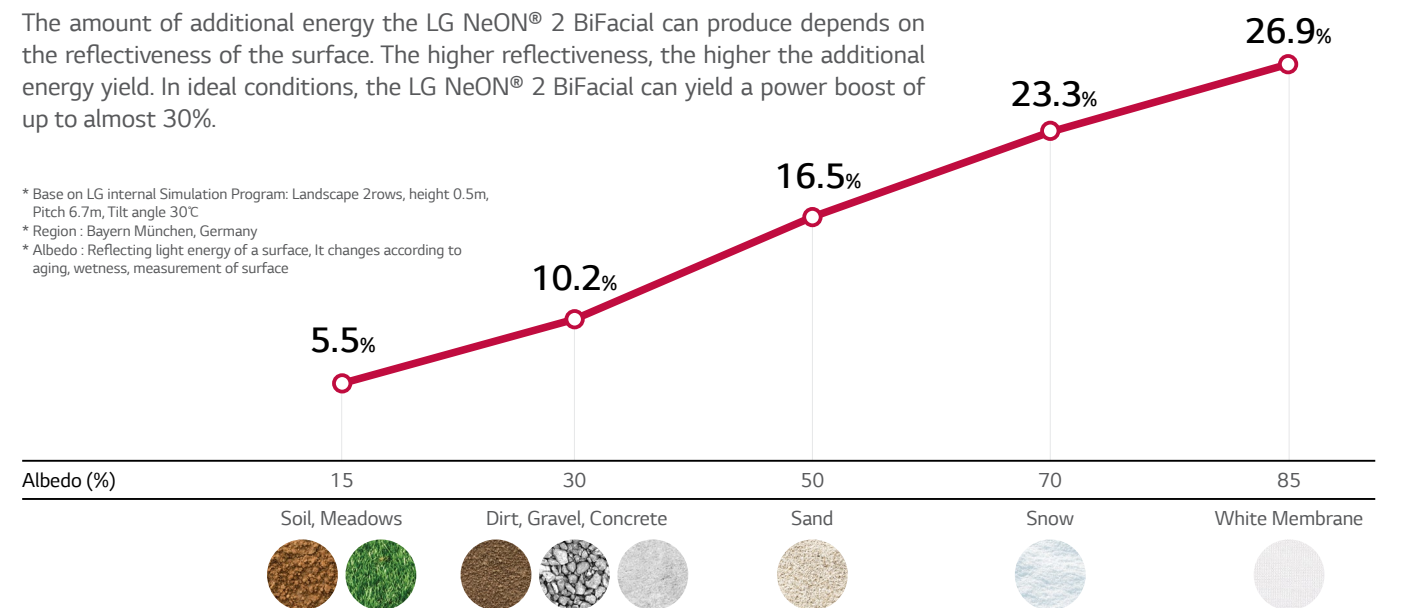
Using a NeON[®] cell which can generate energy on both sides, LG developed a module optimized for bifacial generation.



Additional Energy Yield

The amount of additional energy the LG NeON[®] 2 BiFacial can produce depends on the reflectiveness of the surface. The higher reflectiveness, the higher the additional energy yield. In ideal conditions, the LG NeON[®] 2 BiFacial can yield a power boost of up to almost 30%.

* Base on LG internal Simulation Program: Landscape 2rows, height 0.5m, Pitch 6.7m, Tilt angle 30°
* Region : Bayern München, Germany
* Albedo : Reflecting light energy of a surface. It changes according to aging, wetness, measurement of surface



REFERENCE

Residential



USA



Thailand_Bangkok



Netherlands_Venlo



Thailand_Bangkok



Germany_Leipzig



Germany_Grasberg



Switzerland_Kollikon

REFERENCE

Commercial

Utility



Thailand_Bangkok



USA_Easton



Australia_Sydney



Korea_Sejong



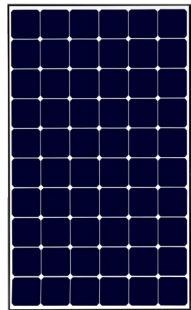
Japan_Hokkaido



Japan_Aomori

PRODUCT LINE-UP

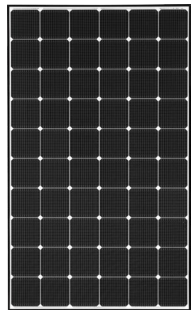
LG NeON[®]R



370W
365W

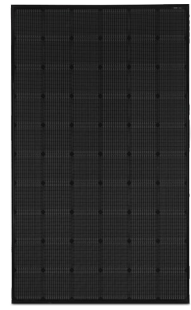
LG NeON[®] R
60Cell

LG NeON[®]2



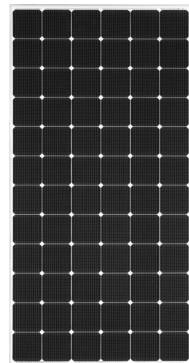
340W
335W
330W

LG NeON[®] 2
60Cell



325W
320W

LG NeON[®] 2 Black
60Cell



400W
395W

LG NeON[®] 2 72Cell

LG NeON[®]2 BiFacial



395W
390W

LG NeON[®] 2 BiFacial
72Cell

LG Solar, Your Trustworthy Energy Partner

LG Electronics has been actively involved in solar energy research for over 30 years. We also bring more than 50 years' experience in the electronics industry to the table. By synergizing the know-how we have gained from these endeavors, we have developed a complete line-up of premium solar modules offering enhanced energy output and long-term quality assurance. But we don't rest on our laurels. We continue to invest relentlessly to develop the next generation of solar technology, ensuring a brighter, cleaner future for our children.

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