

Innovation for a Better Life

LG SOLAR

LG Electronics Inc.

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<http://www.lg.com/global/business/solar>

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CT-ET-CSA-EN-F-70413

* The contents can be changed without notice.

2017 PRODUCT CATALOG

Technological innovation is paramount for the growth of sustainable renewable energy.

The advancement of solar technology and affordability paired with the positive public view led to an exponential growth for the industry. Since photovoltaic (PV) modules have an average lifespan of 25 years, choosing a robust product from a trusted brand is paramount for all consumers. Through 30 years of diligent solar research and development, LG continuously leads the industry with PV modules that are unparalleled in quality and performance. Additionally, LG's record is complimented by the stability of its veteran brand making LG the reliable partner for everyone.



Innovation for a Better Life

Best Partner for Your Life

LG SOLAR

Contents

Why LG Solar?

- Brand Power
- Leading Technology
- Quality

LG NeON® Series

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

LG MonoX® Plus

- LG MonoX® Plus

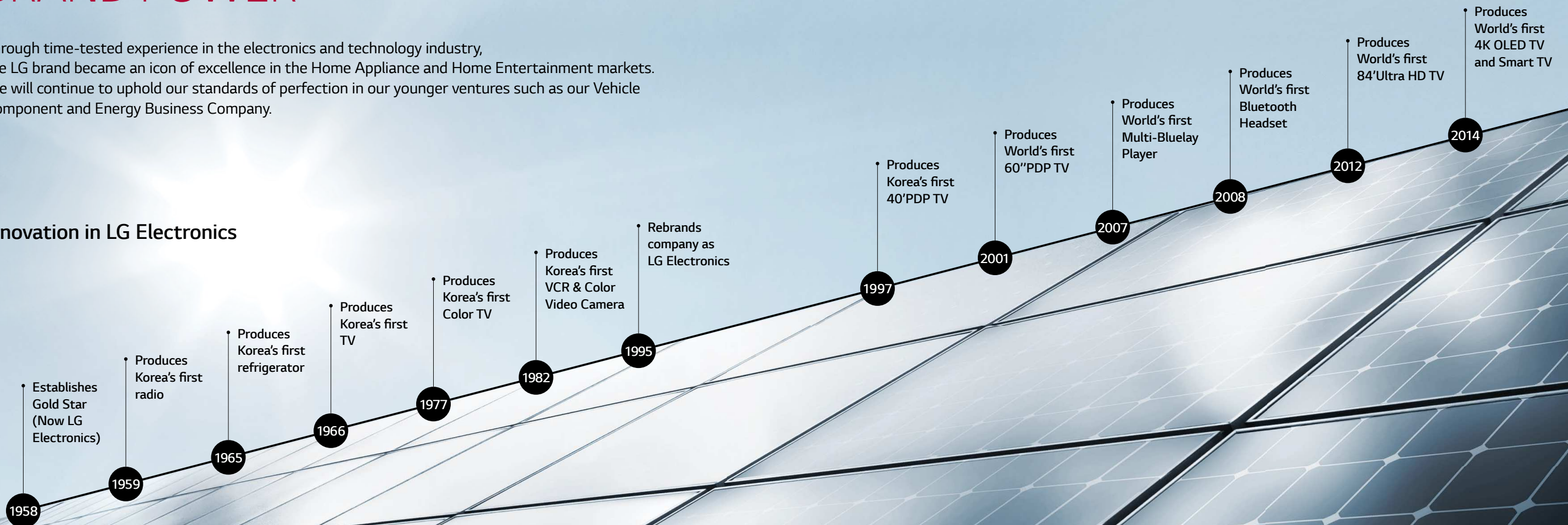
Reference

Contact Us

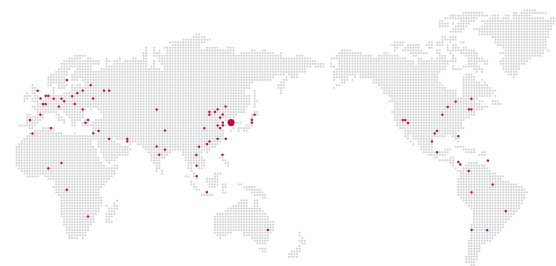
BRAND POWER

Through time-tested experience in the electronics and technology industry, the LG brand became an icon of excellence in the Home Appliance and Home Entertainment markets. We will continue to uphold our standards of perfection in our younger ventures such as our Vehicle Component and Energy Business Company.

Innovation in LG Electronics



LG Electronics plays an active role in world markets with its assertive global business policy. As a result, LG Electronics controls 125 local subsidiaries worldwide, with roughly 77,000 executives and employees.



REVENUE

\$47.92 billion(2016)

* LGE consolidated basis, Exchange Rate KRW 1,155.47 per USD

Workforce

77,000

World Presence

125 Global Operations

LG Smart Energy Solutions

LG has developed a complete energy management system that integrates solar energy production, storage, and control that can be complimented with LG high efficiency appliances.

SOLAR

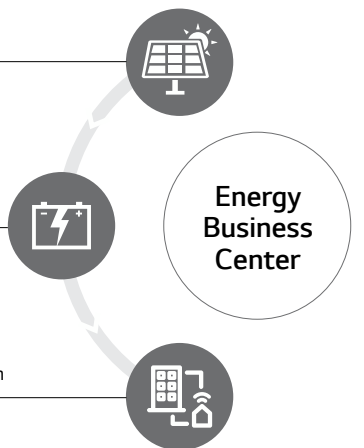
High efficiency module that generates more energy

ESS Energy Storage System

Stable electricity flow with high system efficiency

EMS Energy Management System

Ultimate building control and energy management solution



LEADING TECHNOLOGY

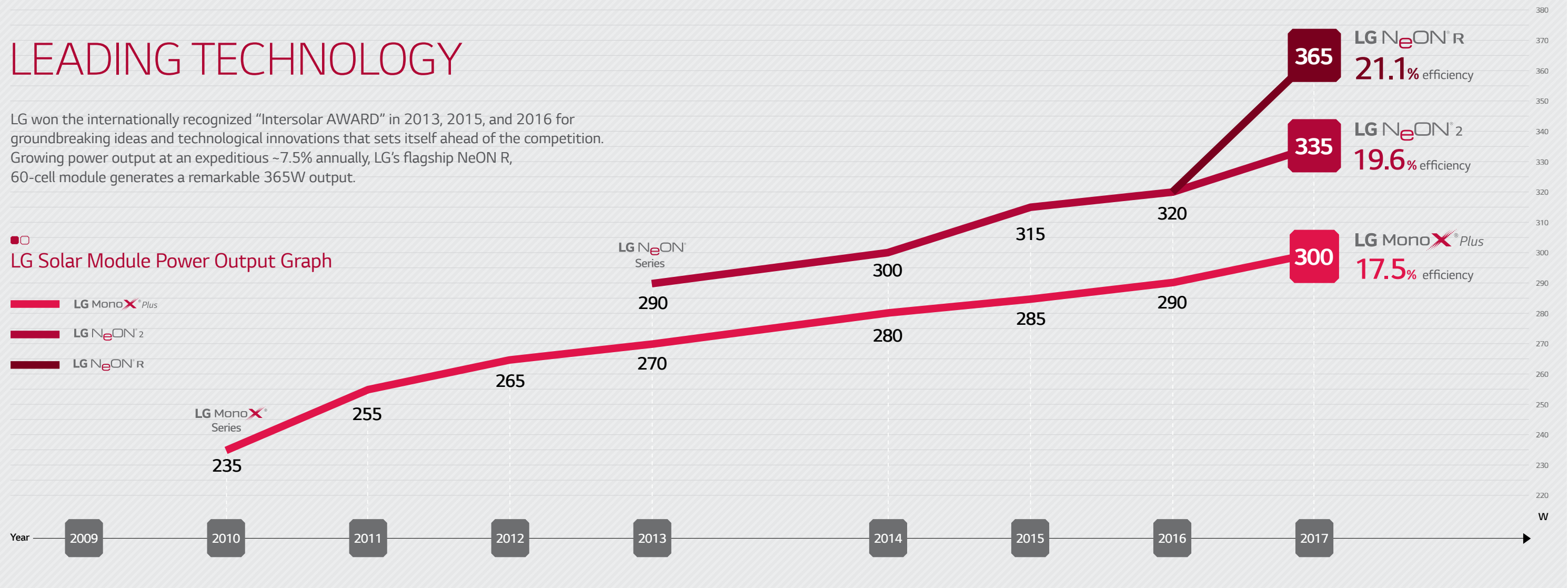
LG won the internationally recognized "Intersolar AWARD" in 2013, 2015, and 2016 for groundbreaking ideas and technological innovations that sets itself ahead of the competition. Growing power output at an expeditious ~7.5% annually, LG's flagship NeON R, 60-cell module generates a remarkable 365W output.

LG Solar Module Power Output Graph

■ LG MonoX[®] Plus

■ LG NeON[®] 2

■ LG NeON[®] R



LG Solar Awards & Innovation in Technology

2013



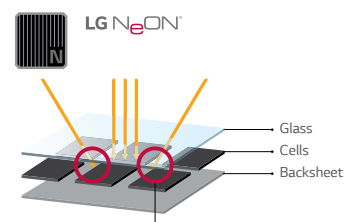
Intersolar Award 2013 [Winner]



Plus X Award 2013 [High Quality, Ecology]

N-type Cell

N-type cells convert sunlight into energy more efficiently than P-type cells. Additionally, the rear side of the cell also generates energy.



2015



Intersolar Award 2015 [Winner]



EUPD Research Top Brand [Module] 2015



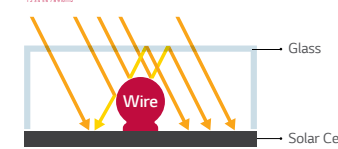
Plus X Award 2015 [High Quality, Functionality, Ecology]

Cello Technology

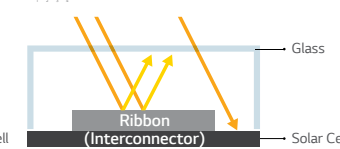
Cello technology uses 12 wires compared to 4 ribbons allowing for a higher current distribution. Cello's cylindrical wiring scatters the light of various angles more efficiently than conventional flat wiring.



LG NeON[®] 2



4 ribbons Product



2016 / 2017



Intersolar Award 2016 [Winner]



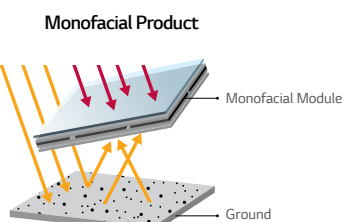
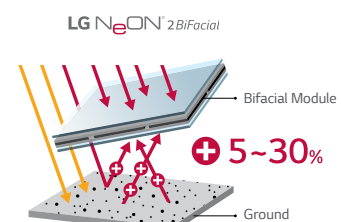
EUPD Research Top Brand [Module] 2016



EUPD Research Top Brand [Module] 2017

Bifacial Product

NeON[®] 2 BiFacial is capable of generating energy from the module front and rear sides allowing up to 30% more energy generation than standard PV module.



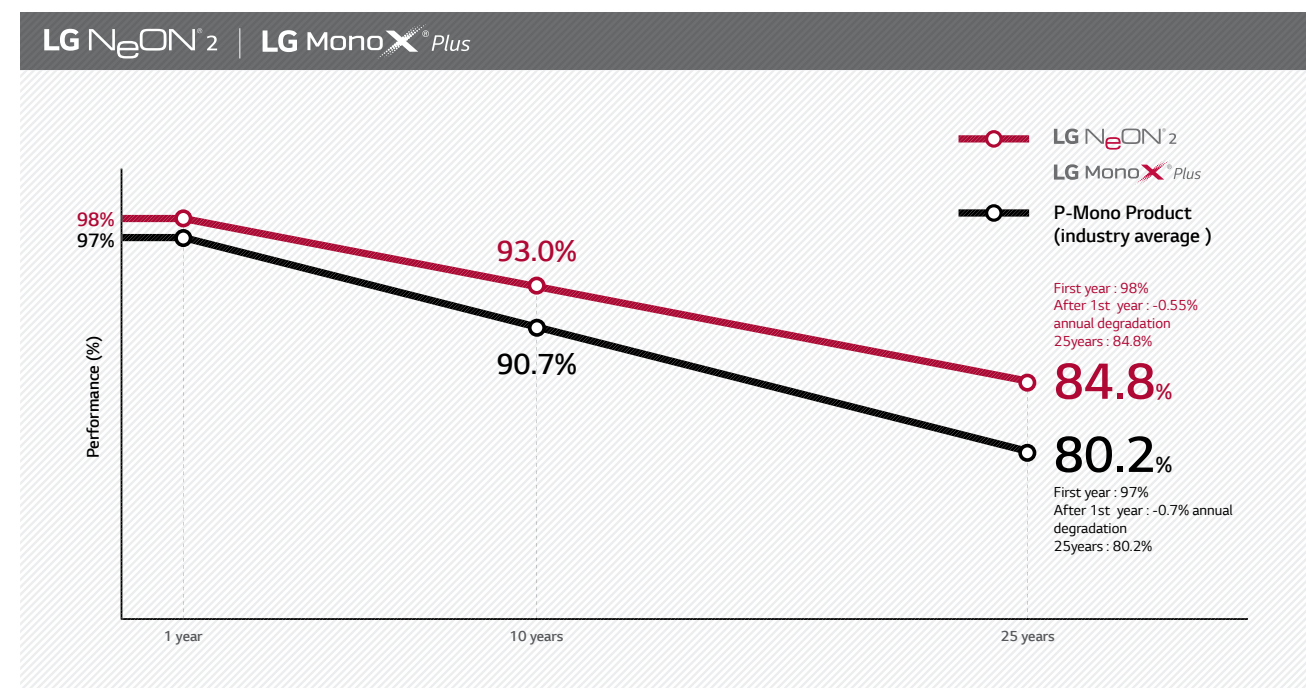
QUALITY

LG has always built innovative, high quality products and LG modules uphold the same standards. LG PV modules remain robust and efficient in environments with high temperatures or low irradiance. This combined with a low annual degradation and longer warranty than the market average, warrants LG quality and consumer confidence.



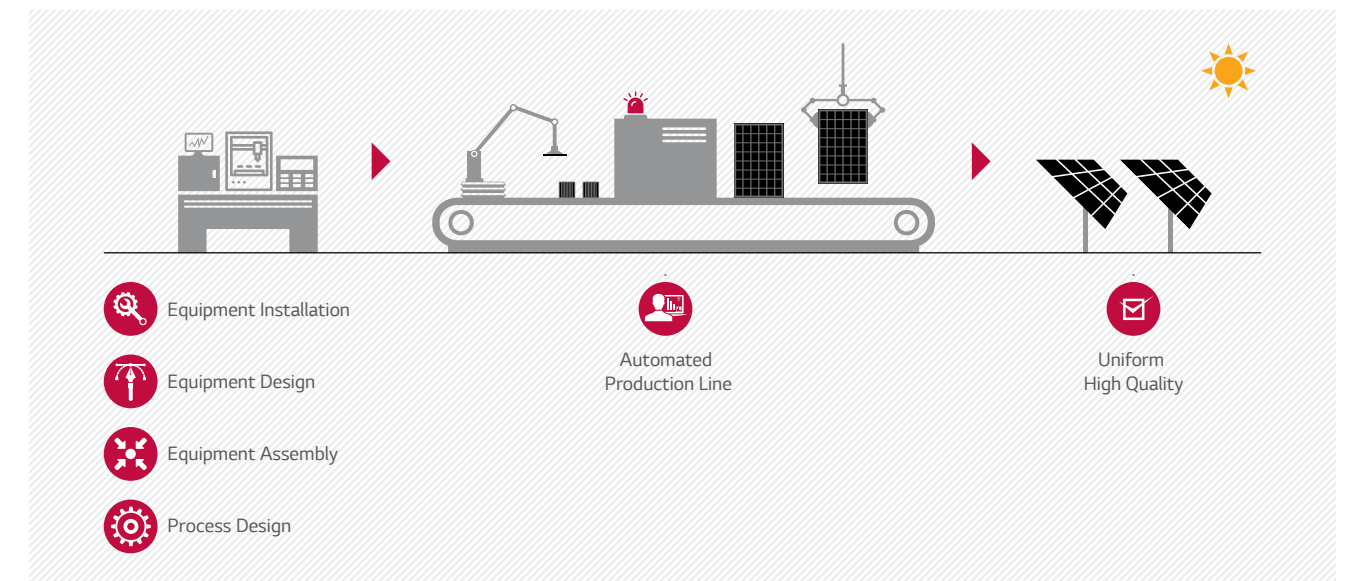
Superior Performance Warranty

LG offers industry top-level warranty on output providing customers with peace of mind when generating electricity



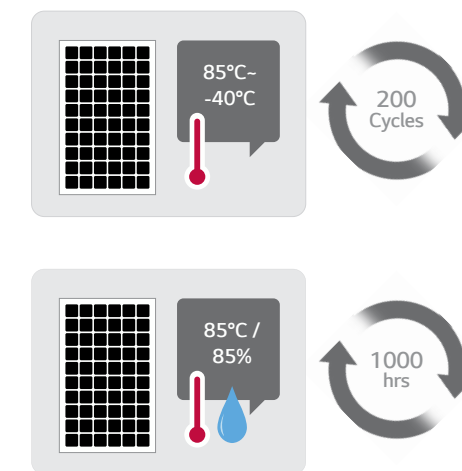
Operational Excellence & Testing Facilities

LG PV modules are built on an automated production line in order to maintain the utmost precision and quality. And LG is the first corporation in the world to operate in-house solar testing facilities that are certified by the 4 major inspection and certification authorities.

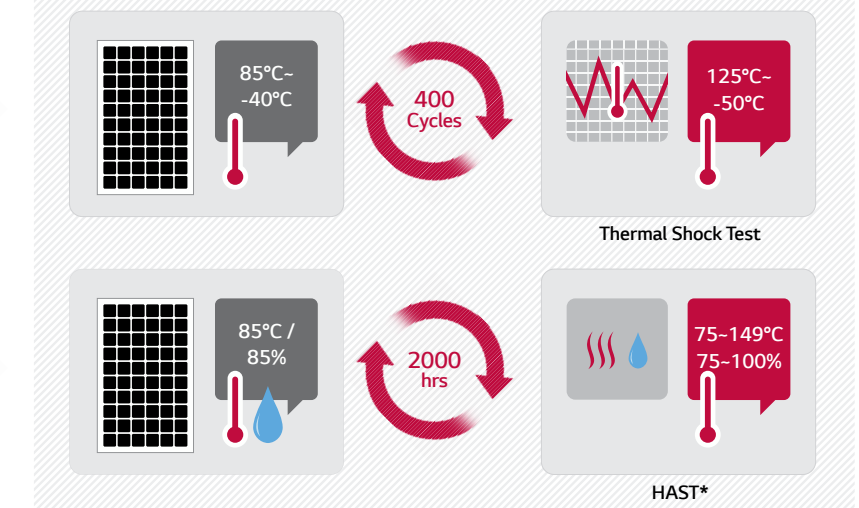


Reliability Testing System above the World Certificate Standard

World Standard



LG



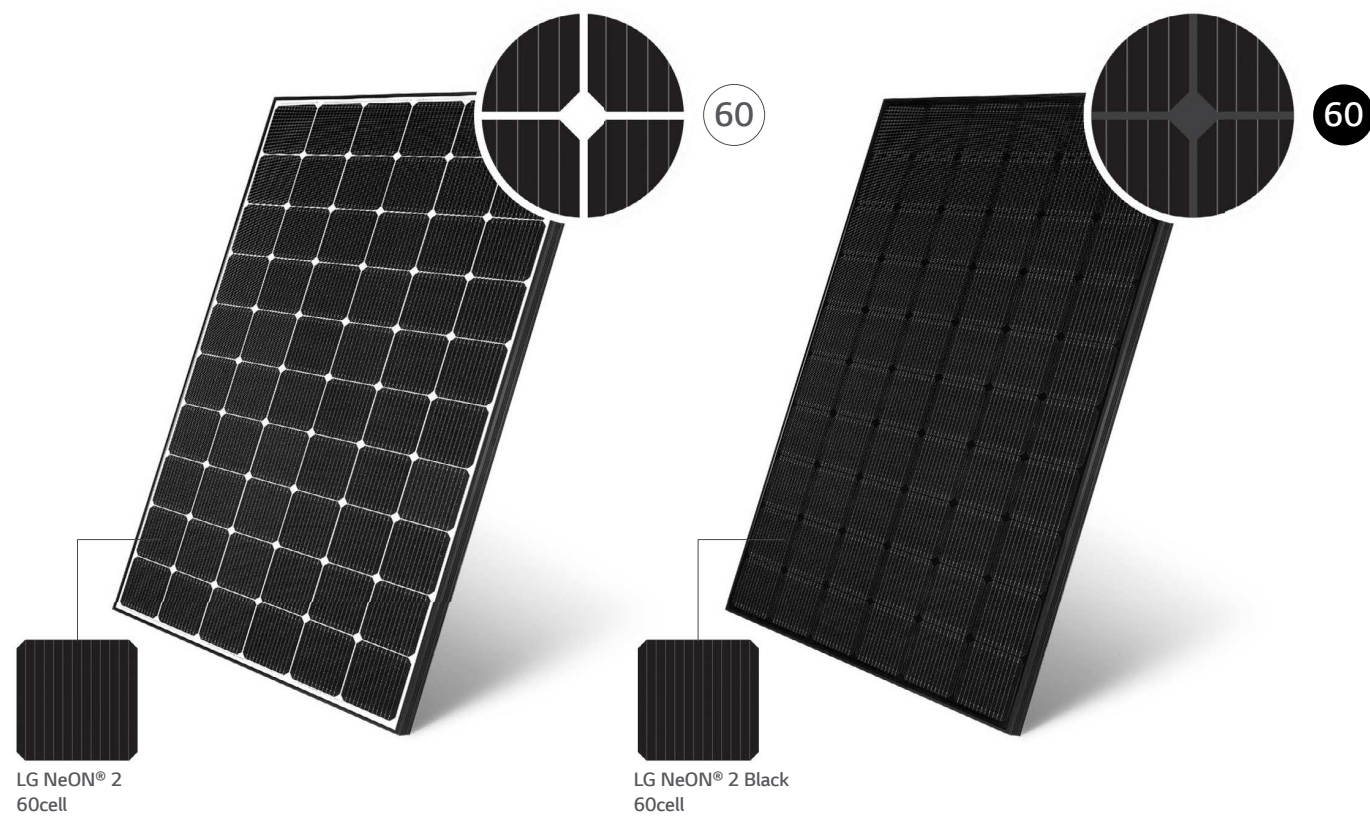
* HAST : Highly Accelerated Stress Test

LG NeON® 2 | LG NeON® 2 Black



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 that 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 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	335W	330W	325W	320W	315W
Module Efficiency	19.6%	19.3%	19.0%	18.7%	18.4%
Dimensions (L x W x H)	1,686 x 1,016 x 40 mm			1,686 x 1,016 x 40 mm	
Weight	18kg			18kg	
Output Warranty of Pmax	Linear Warranty (First year : 98%, After 1st year : 0.55% annual degradation, 25years : 84.8%)				

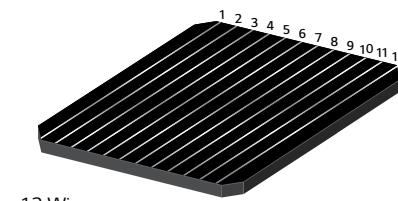


Features

Technical Feature



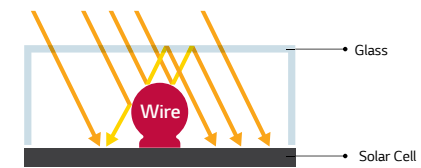
Cello Technology™



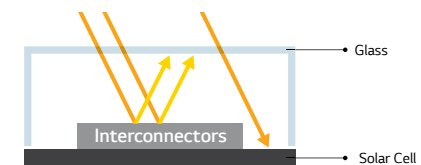
12 Wires

Increased Light Absorption

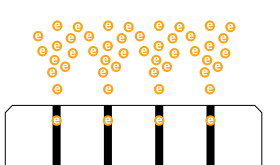
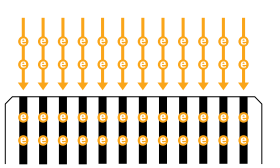
LG NeON® 2



Conventional Ribbon Product

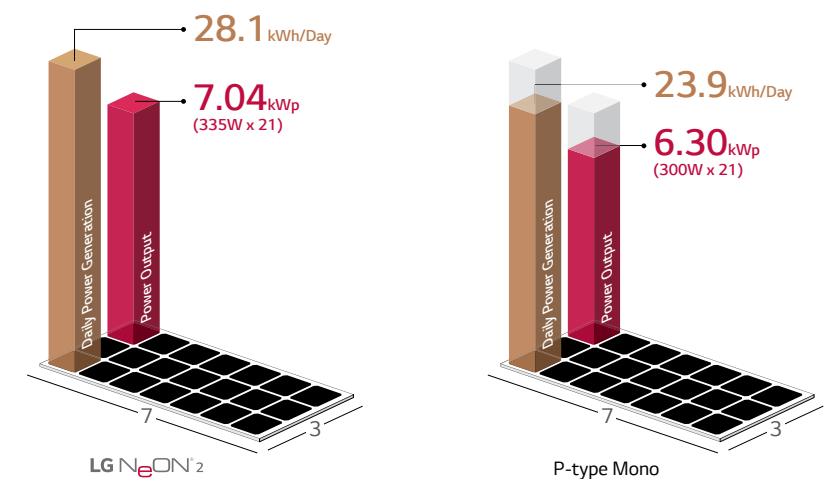


Reduced Electricity Loss



High Power Module

The LG NeON® 2 produces more energy than conventional modules allowing energy requirements to be met using less space.



* PV Syst simulation result
* Region : New York, USA
* Data source : Pan file, Datasheet

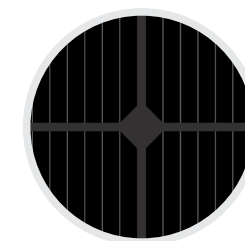
Power Output Comparison of 21-module arrays

Aesthetic Black module

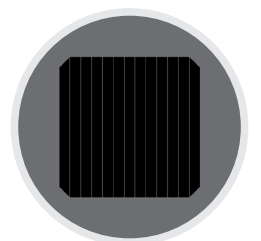
The LG NeON® 2 is equipped with a sophisticated glossy piano black frame and a complimentary black back sheet, and black cells with thin electrodes. This module is perfectly-suited to any rooftop.



Glossy Piano Black Frame



Black Back sheet



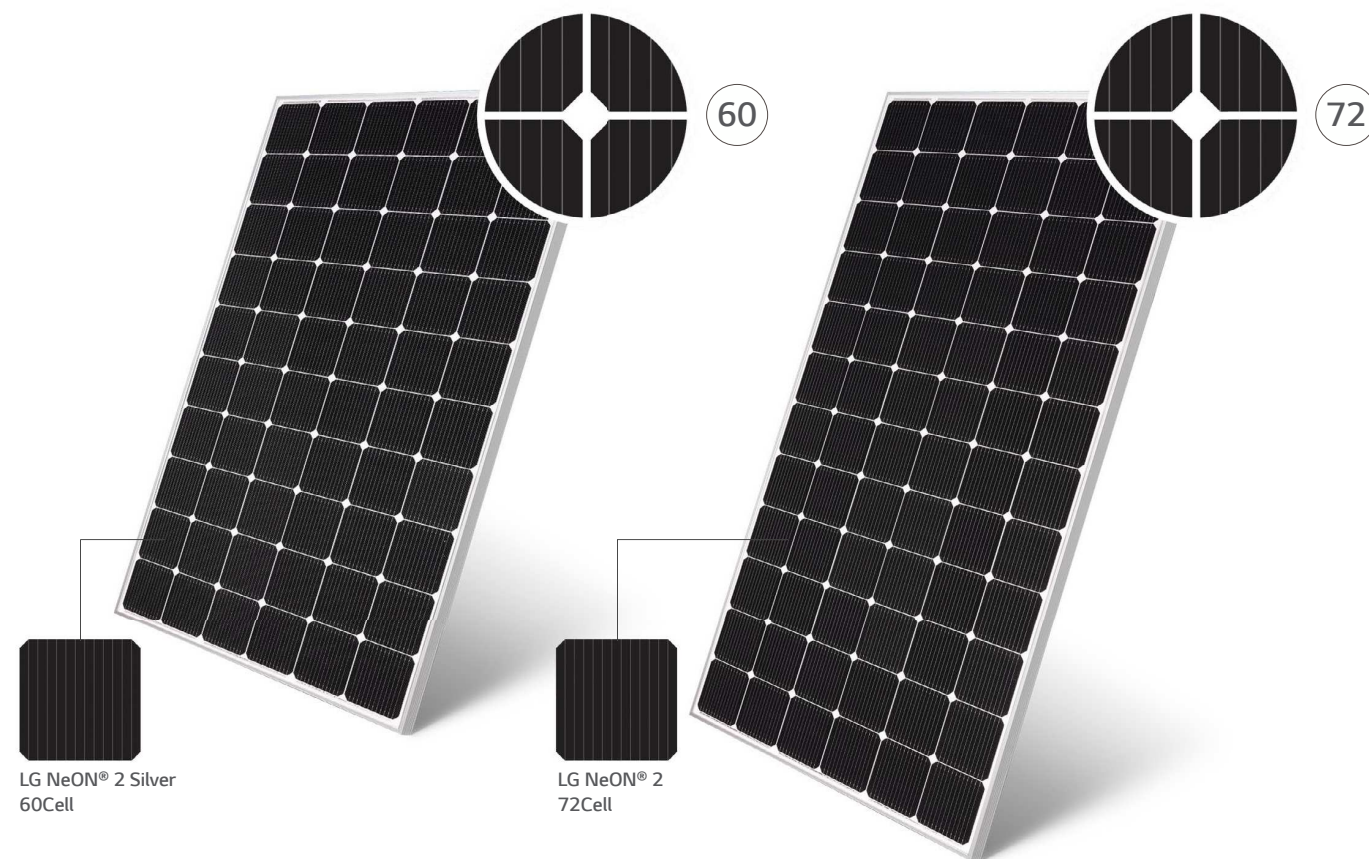
Black Cell with Cello Technology

LG NeON[®] 2



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 that increases its power output and reliability making it one of the most powerful and versatile modules on the market.



LG NeON[®] 2 Silver
60Cell

LG NeON[®] 2
72Cell



Technical Data

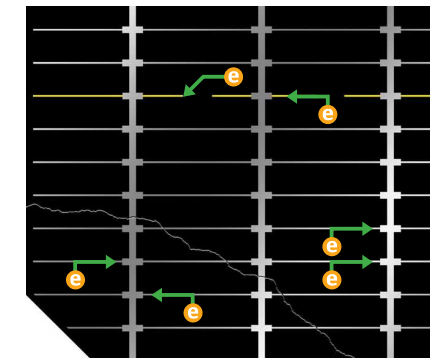
Product Model	LG NeON® 2 Silver 60Cell			LG NeON® 2 72Cell		
Cell Type	Monocrystalline / N-type			Monocrystalline / N-type		
# of Cells	60cell (6 x 10)			72cell (6 x 12)		
Maximum Power	335W	330W	325W	400W	395W	390W
Module Efficiency	19.6%	19.3%	19.0%	19.3%	19.1%	18.8%
Dimensions (L x W x H)	1,686 x 1,016 x 40 mm			2,024 x 1,024 x 40 mm		
Weight	18kg			21.7kg		
Output Warranty of Pmax	Linear Warranty (First year : 98%, After 1st year : 0.55% annual degradation, 25years : 84.8%)					



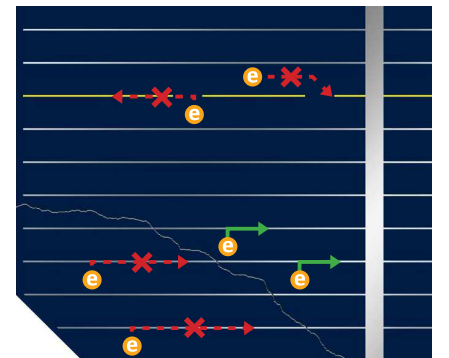
Features

Enhanced Long-term Reliability

When micro crack or finger electrode erosion happens by natural degradation of mechanisms in the outskirts of the solar cell, LG NeON[®] 2 reduces down performance by blocking the electrical path due to the tight layout of wires



Multiple electrical path maintained by wires



High Power Module

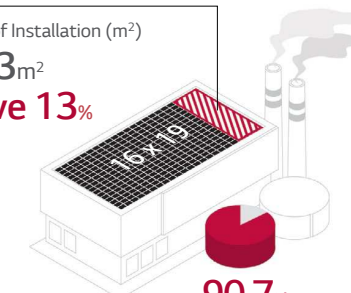
The LG NeON[®] 2 produces more energy than Conventional P-type Multi modules allowing energy requirements to be met using less space.

LG NeON[®] 2 (400W)

Area of Installation (m²)

793m²

Save 13%

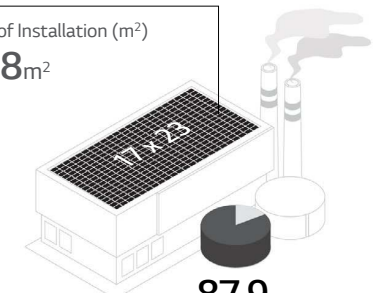


90.7%
Performance
Ratio (%)

P-type Multi (325W)

Area of Installation (m²)

898m²

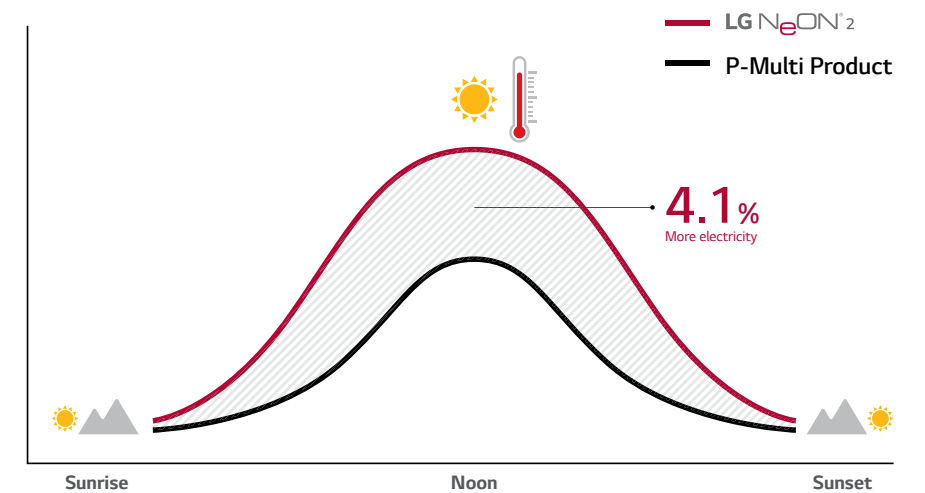


87.9%
Performance
Ratio (%)

* PV Syst simulation
* Region : New York, USA
* Data source : Pan file, Data sheet
* Pitch : 5.5m / Angle : 10°
* The distance between modules in an array : 20mm

Strong Performance in Diverse Environments

The LG NeON[®] 2 generates 4.1% more energy than P-type Multi modules in high temperature conditions as well as at low irradiation conditions.

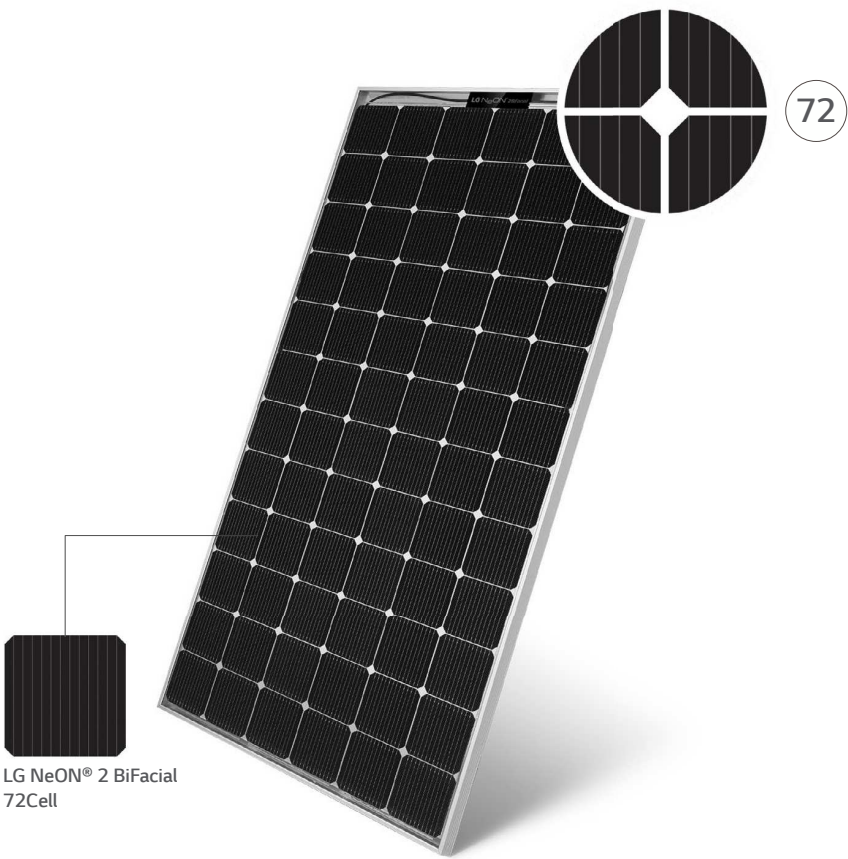


* PV Syst simulation
* Region : New York, USA
* Assuming One day in July
* Data source : Pan file, Data sheet

LG NeON[®] 2 BiFacial

Double-sided Generation at its best

The LG NeON[®] 2 BiFacial is designed to absorb irradiance not only from the front but also the rear of its NeON[®] cell by using a transparent back sheet. The dual faces of the cell allows for higher energy generation.



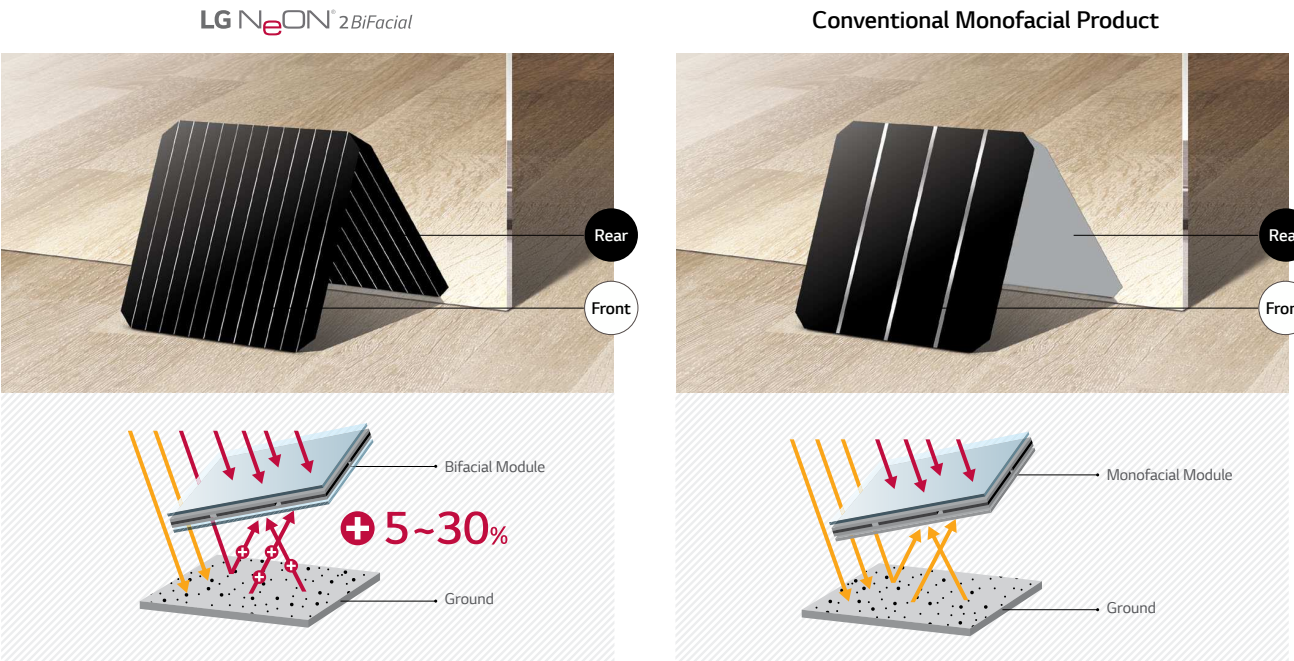
Technical Data

Product Model	LG NeON [®] 2 BiFacial 72Cell		
Cell Type	Monocrystalline / N-type		
# of Cells	72cell (6 x 12)		
Maximum Power	385W	380W	375W
Module Efficiency	18.3%	18.0%	17.7%
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 : 0.55% annual degradation, 25years : 84.8%)		

Features

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

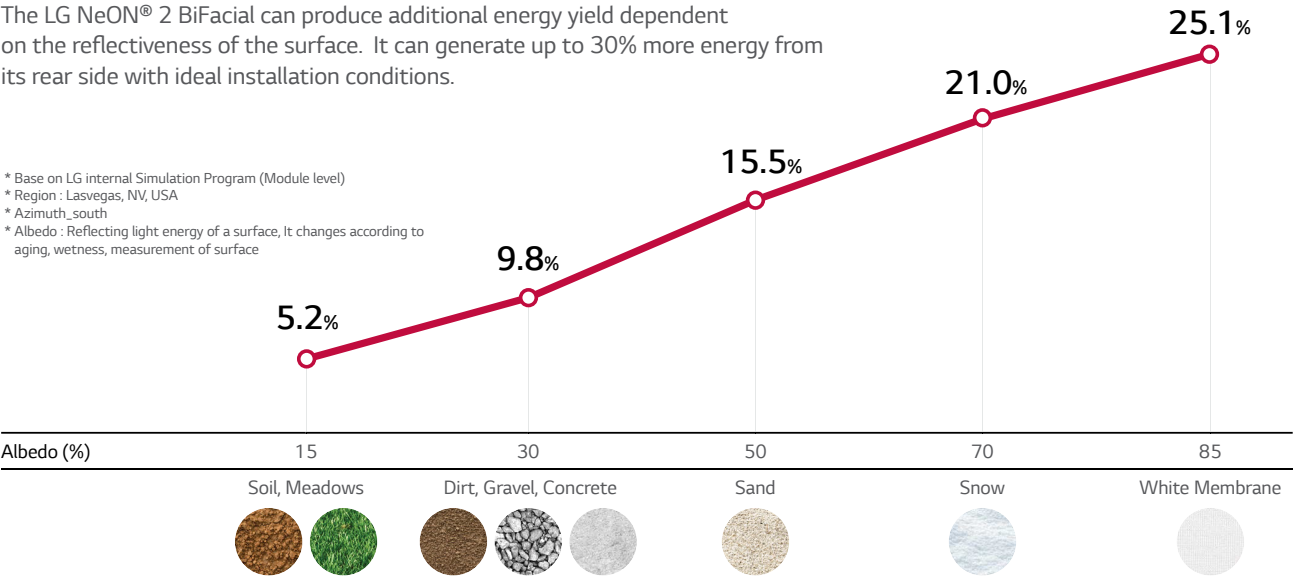
Using NeON[®] cell which can generate energy on both sides, LG developed the optimized module for bifacial generation.



Additional Energy Yield Based on Ground Type

The LG NeON[®] 2 BiFacial can produce additional energy yield dependent on the reflectiveness of the surface. It can generate up to 30% more energy from its rear side with ideal installation conditions.

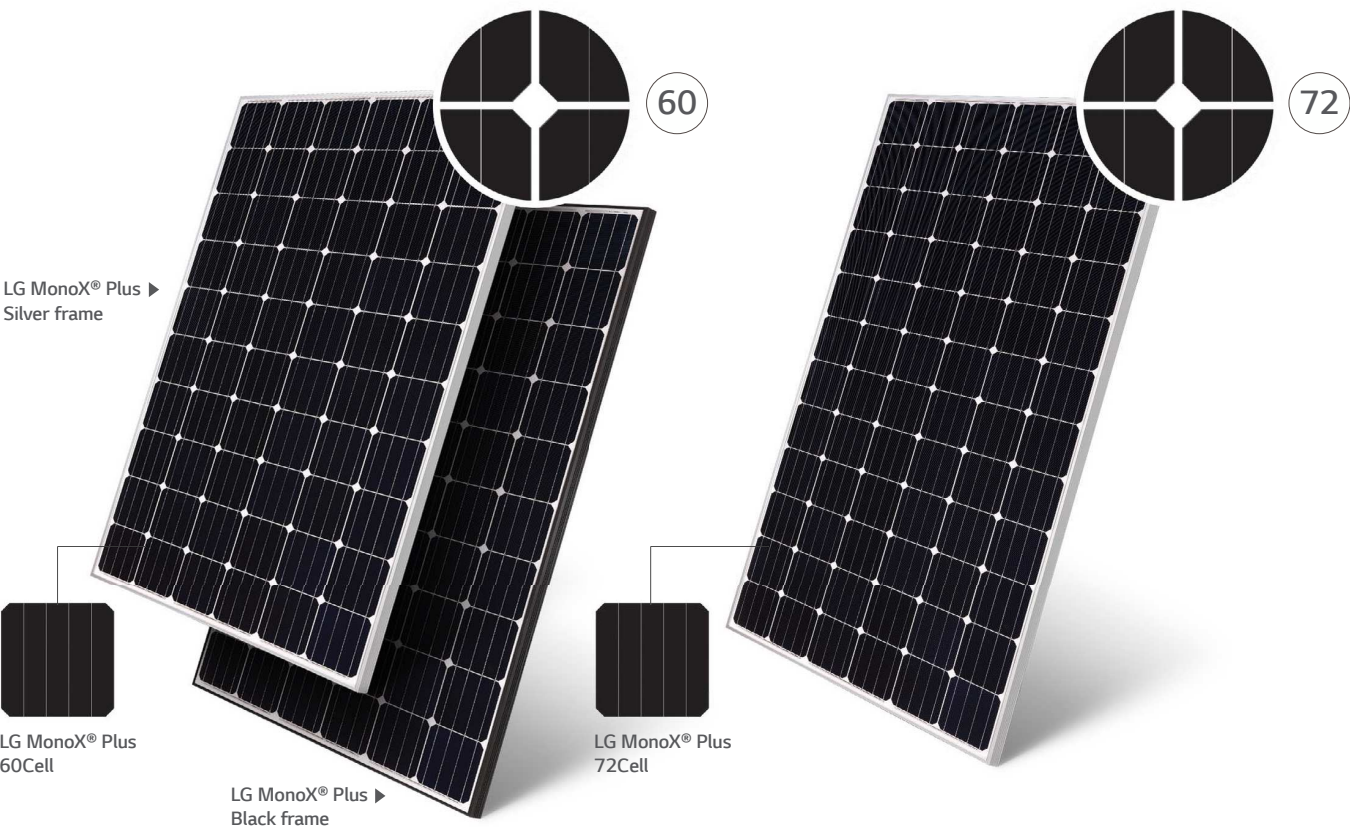
* Base on LG internal Simulation Program (Module level)
* Region : Lasvegas, NV, USA
* Azimuth_south
* Albedo : Reflecting light energy of a surface, It changes according to aging, wetness, measurement of surface



LG MonoX[®] Plus

Built Tough

The LG MonoX[®] Plus is an extremely robust P-type module that maintains high performance by using LG's LiLY Technology. LG also provides an enhanced warranty to for LiLY Technology modules.



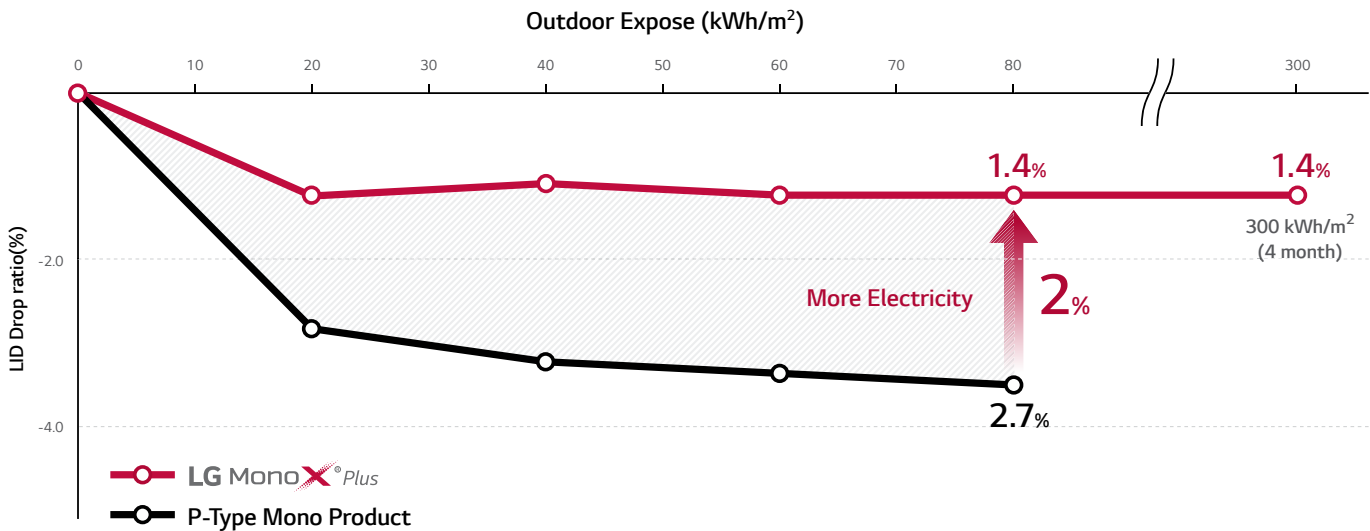
Technical Data

Product Model		LG MonoX® Plus 60Cell			LG MonoX® Plus 72Cell		
Cell Type		Monocrystalline / P-type			Monocrystalline / P-type		
# of Cells		60cell (6 x 10)			60cell (6 x 12)		
Maximum Power		300W	295W	290W	360W	355W	350W
Module Efficiency		17.5%	17.2%	16.9%	17.4%	17.1%	16.9%
Dimensions (L x W x H)		1,686 x 1,016 x 40 mm			2,024 x 1,024 x 40 mm		
Weight		18kg			21.7kg		
Output Warranty of Pmax		Linear Warranty (First year : 98%, After 1st year : 0.55% annual degradation, 25years : 84.8%)					

Features

LiLY Technology

The LG MonoX[®] Plus remains resilient against light induced degradation through the use of LG's LiLY Technology.



Extreme Physical Durability

The LG MonoX[®] Plus's stress endurance is rated to handle up to 6000 Pa on the front side and up to 5400 Pa on the rear side.





REFERENCE

Residential

Innovation for a Better Life
LG SOLAR

REFERENCE

Residential



Thailand_Bangkok



Netherland_Venlo



Thailand_Bangkok



Germany_Leipzig



Germany_Grasberg



Switzerland_Koliken

REFERENCE

Commercial

Utility



Thailand_Bangkok



USA_Easton



Australia_Sydney



Korea_Sejong



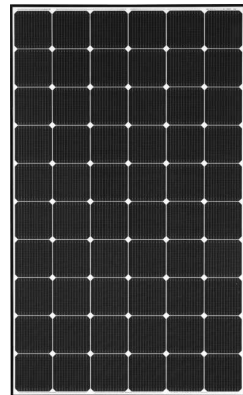
Japan_Hokkaido



Japan_Aomori

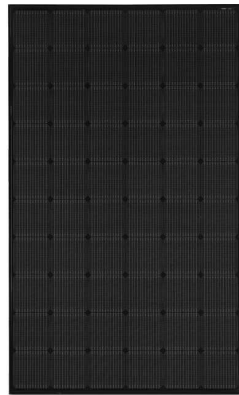
PRODUCT LINE-UP

LG NeON[®] 2



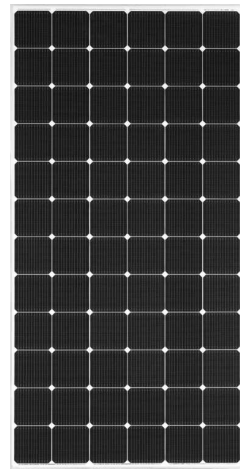
335W
330W
325W

LG NeON[®] 2
60Cell



320W
315W

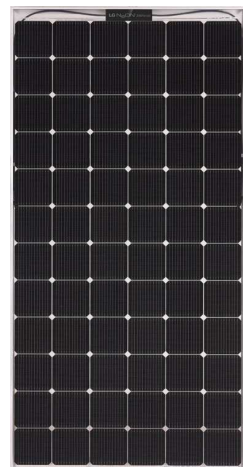
LG NeON[®] 2 Black
60Cell



400W
395W
390W

LG NeON[®] 2
72Cell

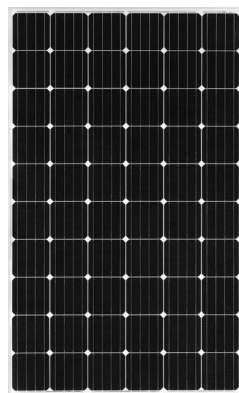
LG NeON[®] 2 BiFacial



385W
380W
375W

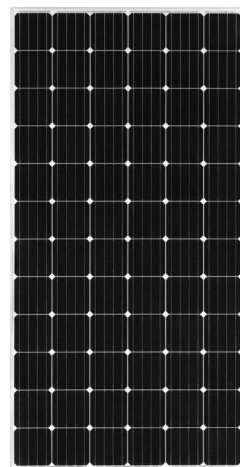
LG NeON[®] 2 BiFacial
72Cell

LG MonoX[®] Plus



LG MonoX[®] plus
60Cell

300W
295W
290W



360W
355W
350W

LG MonoX[®] Plus
72Cell

BEST PARTNER, LG SOLAR

LG Solar has conducted continued solar energy research for the last 30 years, and by synergizing this research with more than 50 years of experience and knowhow in the electronics industry, has developed a premium solar module product line that offers longterm quality assurance and high energy output capacity.

LG Solar continues to seek new challenges even today. Rather than settling for its successes up to this point, LG Solar will continue its genuine and relentless pursuit of value to satisfy its customers.

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