



**POWER THAT IMPRESSES.  
BUILT TO PERFORM. BUILT TO LAST.**

# LG NeON<sup>®</sup>R

**435W**

Up to 21.9% module efficiency

## The panel of the future, available now

The NeON<sup>®</sup>R is a powerful and one of the most efficient modules on the market today. Engineered with N-type cells and back contact technology to increase power and efficiency, the NeON<sup>®</sup>R has one of the lowest performance degradation in the world. Also, it comes with 25-year product warranty.

Combining high efficiency, high performance, low degradation, reliability and aesthetics that impress, the NeON<sup>®</sup>R is the most suitable panel option for customers that want to maximize roof space or have a solar system ready for battery storage.



# High Power & Performance

## | Key Benefits



### More Power For Future Energy Needs

Thanks to its high efficiency and lower degradation, the NeON<sup>®</sup> R produces more power per square meter. Also, it has one of the lowest degradation rates solar panels can offer. Therefore you can install a higher capacity system that will barely change performance over time. It is a perfect solution for customers thinking of installing battery storage or having electric cars.



### Enhanced Performance Warranty

LG NeON<sup>®</sup> R comes with an enhanced performance warranty. At 25 years of use, the LG NeON<sup>®</sup> R is guaranteed to provide at least 92.5% of initial performance. One of the lowest degradation panels in the world.



### Improved High Temperature Performance

Solar panels slowly lose their ability to generate power as they get hotter. LG NeON<sup>®</sup> R has an improved temperature co-efficient to standard modules, which means in hot weather LG NeON<sup>®</sup> R panels will deliver higher output.



### Excellent Low Light Performance

LG NeON<sup>®</sup> R has great performance under low light conditions with LG technology and our Korean cell and module manufacturing with low tolerances ensuring highly consistent performing panels.



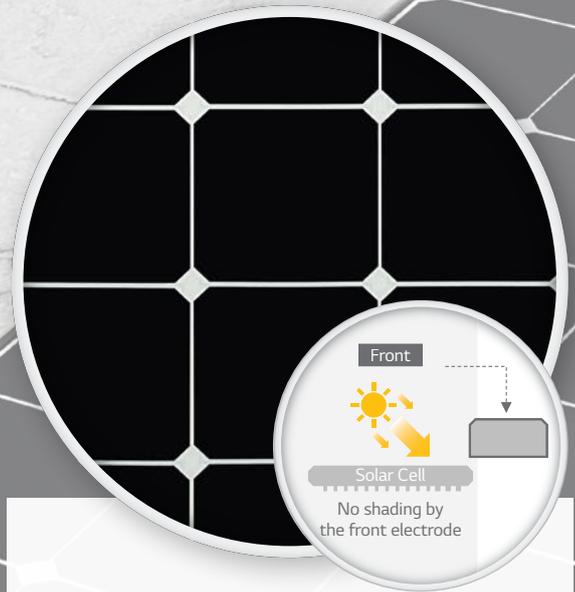
### Increased Output with HTAR Glass and Anti-reflective Coatings

LG uses HTAR glass (Highly Transmitted Anti Reflection) which has low reflectivity and high transmittance to increase power generation compared to AR glass used in previous models.



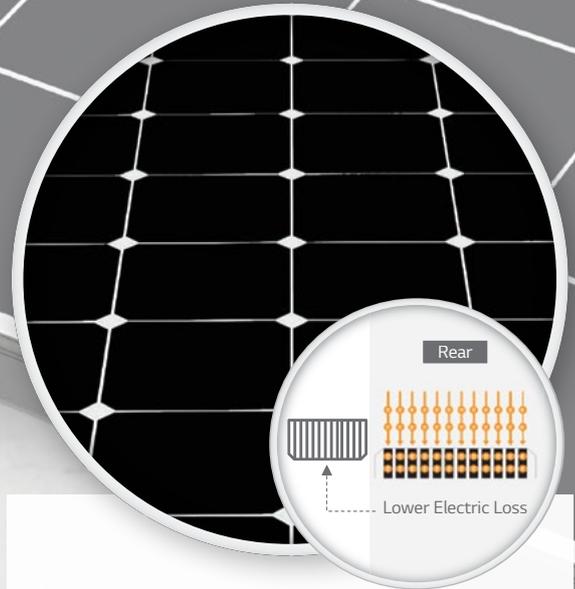
### Low LID

The N-type doping of the NeON<sup>®</sup> cells results in extremely low Light Induced Degradation (LID) when compared with the standard P-type cells. This means more electricity generation over the life of the panel, as the panel degrades less.



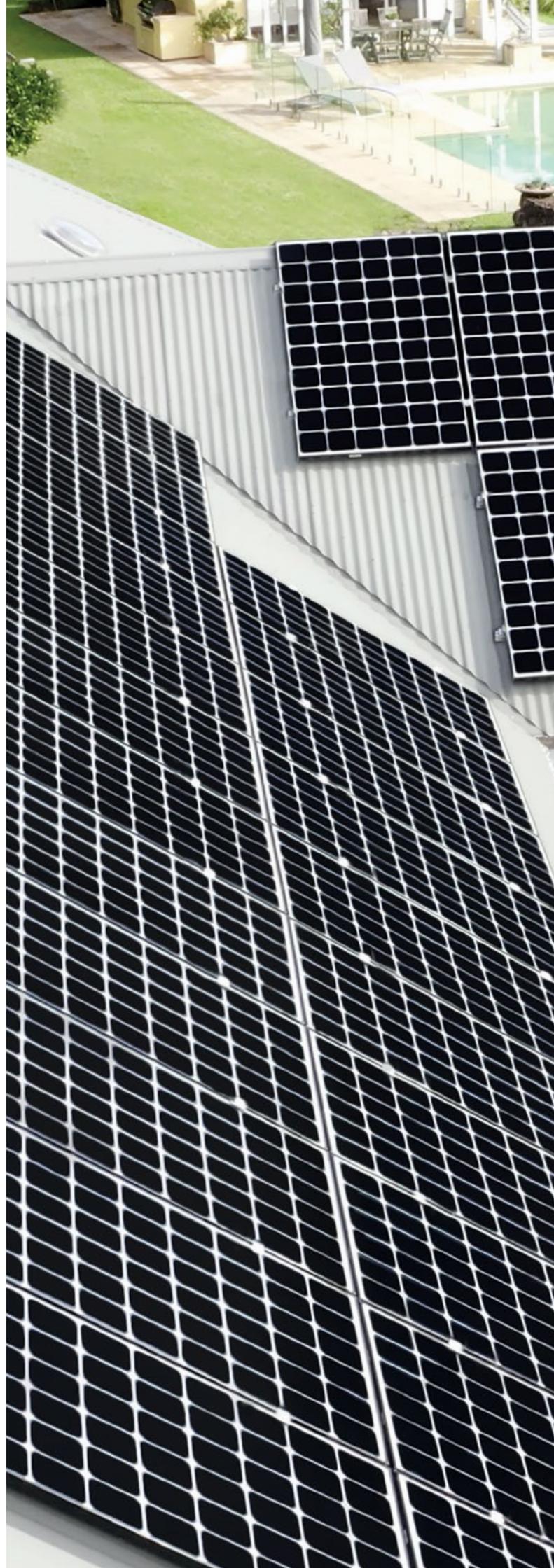
### Increased Power Generation

The LG NeON<sup>®</sup> R applies LG's back-contact cell technology, eliminating electrodes on the front and thereby maximizing light absorption while improving overall performance.



### Reduced Power Loss

With 30 multi-ribbon busbars on the rear, compared to 5 or 6 by many competing panels (at the front), LG has moved solar panel design forward, via this innovative approach, and increasing panel output as a result.



## Reliability & Design

### | Key Benefits



#### High Wind Load Resistance

LG panels have a strong double walled frame. When it comes to wind forces (rear load) our panel under test withstood a wind load of 4000 Pascals.



#### Hail Resistant

LG NeON<sup>®</sup>R panels are tested with 25mm hail stones hit at 23m per second as per the applicable IEC standard.



#### 25 Year Product & Performance Warranty

The LG NeON<sup>®</sup>R comes with a 25 year product and performance warranty which includes replacement, labour and transport. The warranty is provided by LG Electronics Australia and New Zealand.



#### Built To Last - Extensive Testing Programme

LG solar panels are tested at least up to 2 times the International Standards at our in-house testing laboratories, ensuring a very robust and longer lasting solar module.



#### Strict Quality Control

The quality control of LG world-class solar production is monitored and improved using Six Sigma techniques via 500+ monitoring points to effectively maintain and improve our quality.



#### 60 Years of Manufacturing Expertise

LG panels are designed and built utilising 6 decades of manufacturing excellence by LG. As with any other LG Electronics product, when you buy LG panels, they come with the assurance of a global manufacturer that over the past 6 decades has mastered product design and manufacturing process. The benefit is peace of mind solar panels that exceed customer expectations.



### **Your Home Deserves the LG NeON® R**

LG NeON® R panels have been designed with appearance in mind. Their black cells, black frames and no metal solders or wires on the front of the panel give an aesthetically pleasing uniform dark blue-black appearance. LG applied several technologies and optimized the manufacturing process to achieve colour uniformity and a deeper, richer black colour.



### **Excellent high temperature performance**

Solar panels slowly lose ability to generate power as they get hotter. LG NeON® R, has an improved temperature co-efficient to standard modules, which means in hot weather LG NeON® R panels will deliver higher output.



### **Suitable for Coastal Installations**

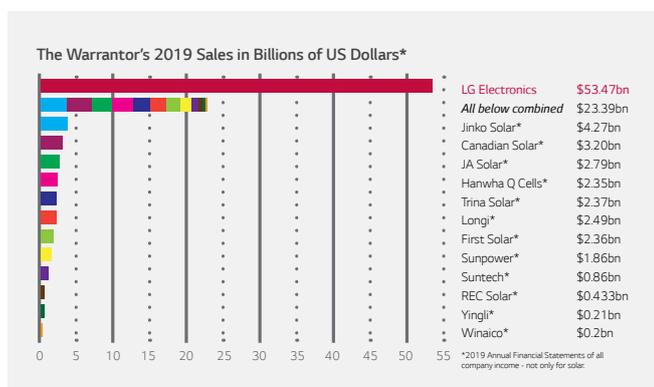
LG NeON® R panels can be installed confidently right up to the coastline. The panels have received certification for Salt Mist Corrosion to maximum severity 6 and Ammonia Resistance.

## LG offers strength and stability



### Reliable 25 year Product and Performance Warranty with Long Term Support

LG offers one of the most meaningful panel warranties in solar. The 25 years warranty includes parts and labour and shipping costs as well as the labour cost of un-installing and installing the panel. In the event you sell your home in the future, the LG warranty is transferrable to the new owners. LG Solar offers a simple warranty registration process via [LGenergy.com.au](http://LGenergy.com.au)



### Global Strength, Largest Consumer Brand in Solar in Australia

LG Electronics embarked on a solar energy research programme in 1985, using our vast experience in semi-conductors, chemistry and electronics. LG solar modules are now available in over 50 countries. LG Electronics is a global and financially strong US\$56 Billion company with over 60 years experience in technology, innovation and commitment to the renewable energy industry.

LG Electronics Australia has been operating in Australia for over 30 years employing over 300 staff and is the warrantor in Australia and NZ for your solar modules.



### Trusted Brand - Multi Award Winning

LG solar panels have won many local and international awards including most recently winning the Most Trusted Brands 2021 Solar Panels award by Readers Digest. Over 3,000 Australian consumers were surveyed. LG has won this award 2 years in a row - 2020 and 2021.



### Sustainability and Social Contribution

LG Electronics considers climate change response as a critical part of our business management. LG is committed to pursuing carbon neutrality by 2030 in the overall operations through emissions reduction, development of high-efficiency energy products, improvement of environmental impacts and management of waste from production and at the end of product lifecycles. Locally, we are strong supporters of community groups such as WIRES, as well as helping communities recover from natural disasters.

### Mechanical Properties

Cell Configuration	66 Cells (6 x 11)
Cell Maker	LG
Cell Properties	Monocrystalline / N-type
Dimensions (L x W x H)	1910 x 1042 x 40 mm
Front Load (test)	5400 Pa
Rear Load (test)	4000 Pa
Weight	20.5kg
Connector Type	Genuine MC4, IP68 (Male: PV-KST4) (Female: PV-KBT4)
Junction Box	IP68 with 3 bypass diodes
Length of Cables	2 x 1250 mm EA
Glass (Material)	Tempered Glass with AR Coating
Frame	Anodised aluminum with white backsheet

### Certifications and Warranty

Certifications	ISO 9001, ISO 14001, ISO 50001
	IEC 61215-1 / -1-1 / 2:2016, IEC 61730-1 / 2:2016, UL 61730-1:2017, UL 61730-2:2017
	OHSAS 18001
Salt Mist Corrosion Test	IIEC 61701: 2011 Severity 6
Ammonia Corrosion Test	IEC 62716: 2013
Fire Rating	Class C (UL 790)
Product Warranty	25 Years
Output Warranty of P <sub>max</sub> (Measurement Tolerance ± 3%)	Linear Warranty <sup>1</sup>

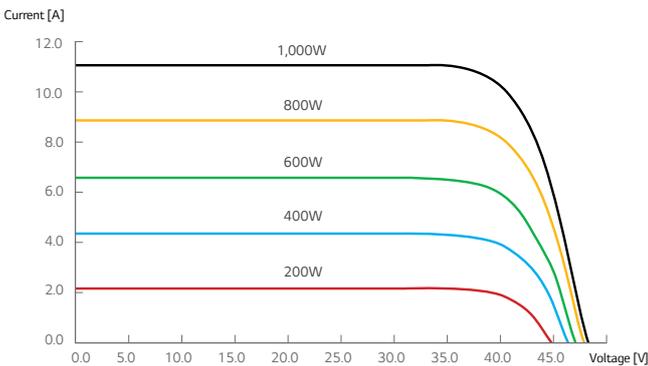
<sup>1</sup> 1) 1st year 98.5%, 2) After 1st year: 0.25% annual degradation, 3) 92.5% at 25 years.

### Temperature Characteristics

NMOT <sup>4</sup>	44 ± 3 °C
P <sub>max</sub>	-0.29 %/°C
V <sub>oc</sub>	-0.24 %/°C
I <sub>sc</sub>	0.04 %/°C

<sup>4</sup> NMOT (Nominal Module Operating Temperature). Irradiance 800W/m<sup>2</sup>, Ambient temperature 20°C, Wind speed 1m/s, Spectrum AM 1.5.

### Current – Voltage characteristics at various irradiance levels



### Electrical Properties (STC<sup>2</sup>)

Module Type	LG435QAC-A6
Maximum Power P <sub>max</sub> (W)	435
MPP Voltage V <sub>mpp</sub> (V)	41.1
MPP Current I <sub>mpp</sub> (A)	10.59
Open Circuit Voltage V <sub>oc</sub> (V)	48.0
Short Circuit Current I <sub>sc</sub> (A)	11.20
Module Efficiency (%)	21.9
Operating Temperature (°C)	-40 ~ +85
Maximum System Voltage (V)	1000 (IEC)
Maximum Series Fuse Rating (A)	20
Power Tolerance (%)	0 ~ +3

<sup>2</sup> STC (Standard Test Condition): Irradiance 1000 W/m<sup>2</sup>, Module Temperature 25°C, AM 1.5. The nameplate power output is measured and determined by LG Electronics at its sole and absolute discretion.

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

Module Type	LG435QAC-A6
Maximum Power P <sub>max</sub> (W)	330
MPP Voltage V <sub>mpp</sub> (V)	38.8
MPP Current I <sub>mpp</sub> (A)	8.49
Open Circuit Voltage (V <sub>oc</sub> )	45.8
Short Circuit Current I <sub>sc</sub> (A)	9.02

<sup>3</sup> NMOT (Nominal Module Operating Temperature): Irradiance 800 W/m<sup>2</sup>, ambient temperature 20°C, wind speed 1 m/s, Spectrum AM 1.5.

### Dimensions (mm)

