



15 YEARS  
LONGER THAN  
INDUSTRY  
STANDARD OF  
10 YEARS

# LG NeON<sup>®</sup>R

LG375/380Q1C-V5

THE STAR PERFORMER

UP TO 22% MODULE EFFICIENCY

## Awards Received By LG Solar<sup>™</sup>



## THE NeON<sup>®</sup>R - A SOLAR MILESTONE FOR LG

Many competing 60 cell panels in Australia and New Zealand produce 330W power. The LG NeON<sup>®</sup>R at a similar physical size reaches an incredible 380W (up to 22% efficiency), making it ideal for solar systems seeking visually pleasing panels and for roofs where space is tight.

The LG NeON<sup>®</sup>R is also the right panel when future solar system expansion is considered or as a combo install of panels and solar energy storage via batteries as well as electric vehicle charging. The LG NeON<sup>®</sup>R is a very powerful module. The 30 multi ribbon busbars at the rear of the module is the result of LG's extensive Solar R&D investment.



### Great Visual Appearance

LG NeON<sup>®</sup>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. Your home deserves the LG NeON<sup>®</sup>R.



### 25 Years Product Warranty (Parts & Labour)

The LG product warranty on the NeON R is 15 years longer than many competitors 10 years and covers 25 years. The warranty is provided by LG Electronics Australia and New Zealand. The warranty includes replacement labour and transport.



### More Power per Square Metre

LG NeON<sup>®</sup>R's 380W are a similar physical size to many competing 330W panels. This means with the LG NeON<sup>®</sup>R 380W you get 15% more electricity per square metre than a 330W panel. So you can install more kW of solar on your roof with the LG NeON<sup>®</sup>R.



### Improved 25 Year Performance Warranty

The NeON<sup>®</sup>R has a better 25 year performance warranty than many of panels on the Australian market. It will still achieve 90.8% of rated output after 25 years, compared to 80.2% for many competing panels. The annual degradation rate after first year is 0.3% compared to 0.7% for many competing panels.

## ABOUT LG ELECTRONICS

LG Electronics embarked on a solar energy research programme in 1985, using our vast experience in semi-conductors, chemistry and electronics. In 2010, LG Solar successfully released its first Mono X<sup>®</sup> series, and LG Solar modules are now available in over 50 countries. In 2013, 2015 and 2016 the LG NeON<sup>®</sup> range won the acclaimed Intersolar Award in Germany, which demonstrates LG Solar's lead in innovation and commitment to the renewable energy industry. Additionally, LG Solar<sup>™</sup> won the Australian Top Brand Award in 2016, 2017, 2018, 2019 and 2020.

## KEY FEATURES



### Proven Field Performance

LG has been involved in a number of comparison tests of the LG panels against many other brand panels and performed very well. The LG NeON<sup>®</sup> R is LG Solar's most efficient and highest output panel range.



### Australia Wide Partner Network

LG Solar has an Australia wide partner network which will support and maintain your system in years to come. Help and advice is only one phone call away.



### Strict Quality Control Reliable for the Future

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 uncompromising quality.



### Multi Anti-reflective Coatings Increase Output

LG is using an anti-reflective coating on the NeON<sup>®</sup> R glass as well as on the cell surface to ensure more light is absorbed in the panel and not reflected. More absorbed light means more electricity generation.



### 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.



### Multi-Ribbons Increases Power

The NeON<sup>®</sup> R 30 multi-ribbon busbar technology hidden at the rear of the module, under the backing sheet, lowers electrical resistance and increases panel efficiency, giving more power per panel and provides a more uniform look to the panel.



### 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.



### 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.



### Improved High Temperature Performance

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



### Positive Tolerance (0/+3%)

If we sell you a 380 Watt panel then the flash test of this panel will show somewhere between 380W and 391W. Some competitor panels have -/+ tolerance, so you could get a flash test result below the rated Watt, meaning you pay for Watts you never get.



### Enhanced Low Light Performance

LG NeON<sup>®</sup> R panels will give better performance under low light, such as early morning or late afternoon compared to many competing panels.



### Automated Production in South Korea

All LG solar panels sold in Australia and New Zealand are manufactured in a custom designed and fully automated production line by LG in Gumi, South Korea ensuring extremely low tolerances. This means great quality and build consistency between panels.

## LG NeON® R – QUALITY & HIGH EFFICIENCY IS OUR PASSION.

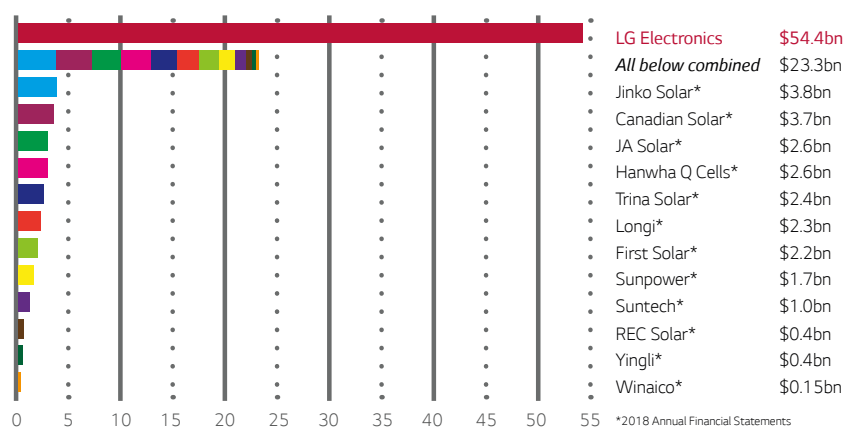
The NeON® R is LG's most efficient solar module range. Featuring an innovative design which allows more electricity per m<sup>2</sup> than a standard 330W panel, it can under test withstand a static front panel load of 5400 pascals, and rear wind load of 4000 pascals. The 25 year product warranty is 15 years longer than many panels on offer and its linear performance guarantee has been improved to 90.8% of nominal output after 25 years. The NeON® R is an excellent choice for high performing long lasting solar systems.

### LOCAL WARRANTY, GLOBAL STRENGTH

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

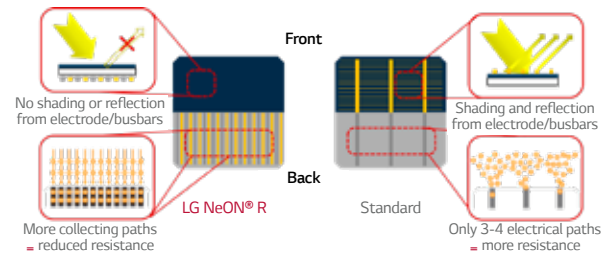
Good to know: LG Electronics Australia Pty Ltd is the warrantor in Australia and NZ for your solar modules. So LG support, via offices in every Australian mainland state and NZ and through our 80 strong Australia wide dealer network, is only a phone call away, ph 1300 152 179.

The Warrantor's 2018 Global Sales in Billions of US Dollars



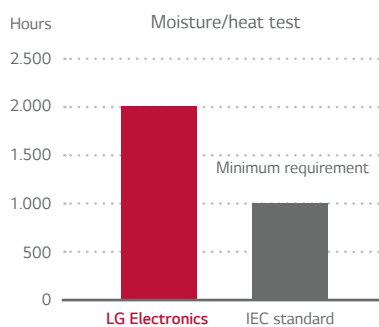
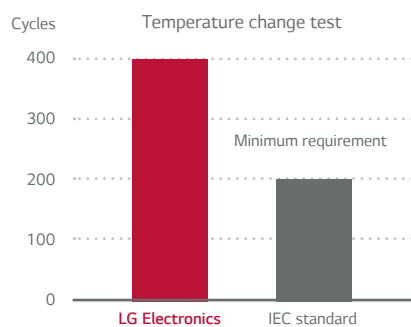
### HIGHER OUTPUT, HIGHER YIELD

The NeON® R module range has moved the busbars to the rear of the module, allowing a bigger front cell surface to be exposed to light and therefore generating more electricity. With 30 multi-ribbon busbars on the rear, compared to 3 or 4 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.



### EXCELLENT QUALITY, THOROUGHLY TESTED

You can rely on LG. We test our products with at least double the intensity specified in the IEC standard. (International Quality Solar Standard).



### Awards Received By LG Solar™



Our panel range have won a string of International Awards.

### POWERFUL DESIGN, GUARANTEED ROBUST

With reinforced frame design, the LG NeON® R can under test withstand a front load of 5400Pa which is the equivalent of 943kg in weight over the size of the panel. The rear load/wind load of the panel under test is 4000Pa.



LG offers a 15 year longer product warranty for parts and labour than many competitors' 10 years to an impressive 25 years.

**10yrs + 15yrs**



## Mechanical Properties

Cells	6 x 10
Cell Vendor	LG
Cell Type	Monocrystalline / N-type
Cell Dimensions	161.7 x 161.7 mm
Cell Colour	Black/Blue (Similar to Pantone PMS 5004)
# of Busbar	30 (Multi Ribbon Busbar)
Dimensions (L x W x H)	1700 x 1016 x 40 mm
Front Load (test)	5400 Pa
Rear Load (test)	4000 Pa
Weight	17.5 kg
Connector Type	Genuine MC4, IP68 (Male: PV-KST4) (Female: PV-KBT4)
Junction Box	IP68 with 3 bypass diodes
Length of Cables	2 x 1000 mm
Front cover	High transmission tempered glass
Frame	Anodised aluminum with protective black coating

## Certifications and Warranty

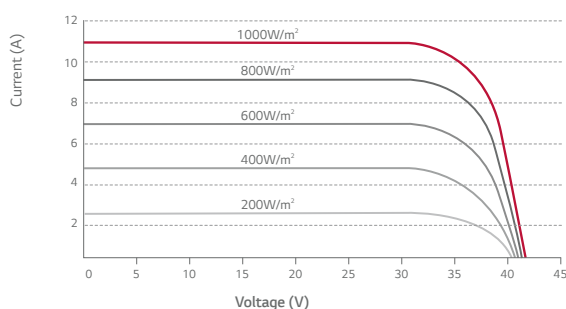
Certifications	ISO 9001, ISO 14001, ISO 50001 IEC 61215-1/-1-1/2:2016, IEC 61730-1/-2:2016 OHSAS 18001
Module Fire Rating	Class C (UL 790, ULC/ORD C 1703)
Product Warranty	25 Years
Output Warranty of Pmax (Measurement Tolerance $\pm 3\%$ )	Linear Warranty <sup>1</sup>

<sup>1</sup> a) After first year: 98%, b) After second year: 0.3% annual degradation, c) 25 years: 90.8%

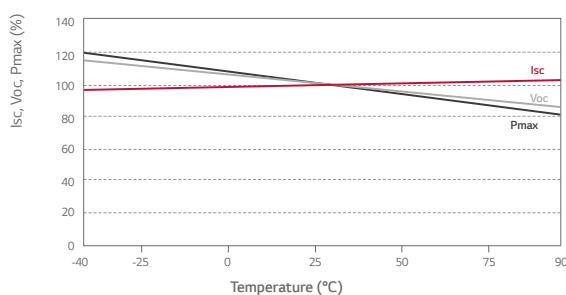
## Temperature Characteristics

NMOT <sup>2</sup>	44 $\pm$ 3 °C
Pmax	-0.30 %/°C
Voc	-0.24 %/°C
Isc	0.037 %/°C

## Current – Voltage characteristics at various irradiance levels



## Current – Voltage characteristics at various cell temperatures



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

Module Type	375 W	380 W
Maximum Power Pmax (W)	375	380
MPP Voltage Vmpp (V)	37.2	37.4
MPP Current Imp (A)	10.09	10.17
Open Circuit Voltage Voc (V)	42.8	42.9
Short Circuit Current Isc (A)	10.83	10.84
Module Efficiency (%)	21.7	22.0
Operating Temperature (°C)	-40 ~ +90	
Maximum System Voltage (V)	1000	
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	375 W	380 W
Maximum Power Pmax (W)	282	286
MPP Voltage Vmpp (V)	37.1	37.3
MPP Current Imp (A)	7.61	7.67
Open Circuit Voltage Voc (V)	40.3	40.3
Short Circuit Current Isc (A)	8.72	8.73

<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)

