

# LG NeON<sup>®</sup> R Prime

LG355/360/365 Q1K-V5

THE STAR PERFORMER

UP TO 21.1% MODULE EFFICIENCY

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



## THE NeON<sup>®</sup> R PRIME - A SOLAR MILESTONE FOR LG - 355W/360W/365W

Many standard 60 cell modules in Australia and New Zealand produce 300W power. The new LG NeON<sup>®</sup> R Prime at a similar physical size reaches an incredible 365W (21.1% efficiency), making it ideal for solar systems seeking visually pleasing panels and for roofs where space is tight.

The NeON R Prime 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. The LG NeON<sup>®</sup> R Prime is a very powerful module. The 30 multi ribbon busbars at the rear of the module sets a new standard of innovation and is the result of LG's extensive solar R&D investment.



### Great Visual Appearance

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



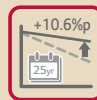
### 25 Years Product Warranty (Parts & Labour)

The LG product warranty is 15 years longer than many competitors standard 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 Prime's 365W are a similar physical size to many conventional 300W panels. This means with the LG NeON<sup>®</sup> R Prime 365W you get 21.6% more electricity per square metre than a 300W panel. So you can install more kW of solar on your roof with the LG NeON<sup>®</sup> R Prime.



### Improved 25 Year Performance Warranty

The NeON<sup>®</sup> R Prime 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 standard 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. LG solar panels offer a peace of mind solution. LG Solar has also been voted WINNER Most Trusted Brands - SOLAR PANELS by Reader's Digest from over 3,000 Australian consumers surveyed.

## 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 Prime is LG Solar's most efficient and highest output panels.



### 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 Prime 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.



### Improved High Temperature Performance

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



### Heading: Multi-Ribbons Increases Power

The NeON<sup>®</sup> R Prime 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 up to 2 times the International Standards at our in-house testing laboratories, ensuring a very robust and longer lasting solar module.



### 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.



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

If we sell you a 365 Watt panel then the flash test of this panel will show somewhere between 365W and 375.9W. 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> 2 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<sup>®</sup> R PRIME– QUALITY & HIGH EFFICIENCY IS OUR PASSION.

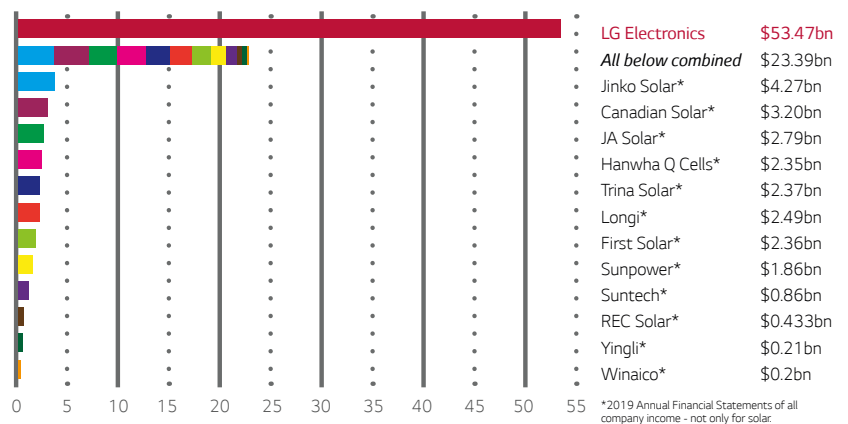
The NeON<sup>®</sup> R Prime is LG's most efficient solar module range. Featuring an innovative design which allows up to 21.6% more electricity per m<sup>2</sup> than a standard 300W panel, it can under test withstand a static front panel load of 5400 pascals, and rear wind load of 4000 pascals. The 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<sup>®</sup> R Prime 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.

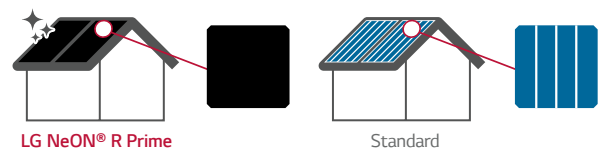
Good to know: LG Electronics Australia Pty Ltd is the warrantor in Australia and NZ for your solar modules. So LG support, via offices in every Australian mainland state and NZ and through our 70 strong Australia wide dealer network, is only a phone call away.

The Warrantor's 2019 Sales in Billions of US Dollars\*



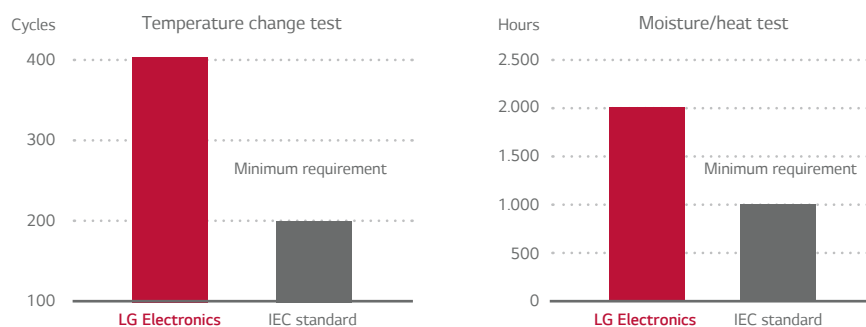
### UNDERSTATED ELEGANCE FOR BEAUTIFUL ROOFS

The LG NeON<sup>®</sup> R Prime solar module featuring a black anodised frame and black backing sheet looks totally black. Its uniform design looks much more elegant than the blue colour cells and grey/silver frames of standard panels.



### 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 Local and International Awards.

### POWERFUL DESIGN, GUARANTEED ROBUST

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



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
# of Busbar	30 (Multi Ribbon Busbar)
Dimensions (L x W x H)	1700 x 1016 x 40 mm
Cell Colour	Black
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

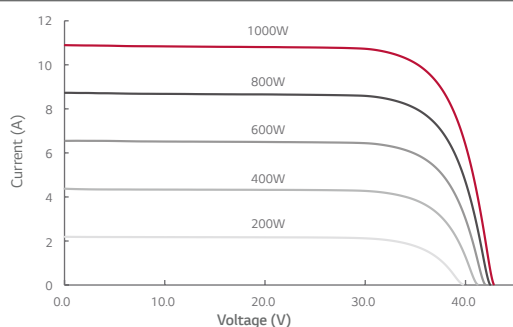
Certifications	ISO 9001, ISO 14001, ISO 50001
	IEC 61215-1/-1-1/2:2016, IEC 61730-1/2:2016, UL1703
	OHSAS 18001
Module Fire Performance	Type 1 (UL 1703), Class C (UL 790, ULC/ORD C 1703)
Product Warranty	25 Years
Output Warranty of P <sub>max</sub> (Measurement Tolerance $\pm 3\%$ )	Linear Warranty <sup>1</sup>

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

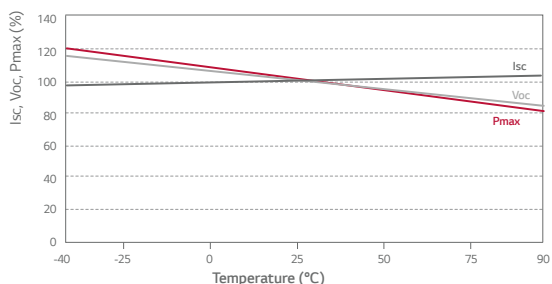
## Temperature Characteristics

NOCT	44 $\pm$ 3 °C
P <sub>max</sub>	-0.30 %/°C
V <sub>oc</sub>	-0.24 %/°C
I <sub>sc</sub>	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	355 W	360 W	365 W
Maximum Power P <sub>max</sub> (W)	355	360	365
MPP Voltage V <sub>mpp</sub> (V)	36.4	36.7	36.9
MPP Current I <sub>mpp</sub> (A)	9.76	9.82	9.90
Open Circuit Voltage V <sub>oc</sub> (V)	43.1	43.3	43.5
Short Circuit Current I <sub>sc</sub> (A)	10.44	10.50	10.55
Module Efficiency (%)	20.6	20.8	21.1
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	355 W	360 W	365 W
Maximum Power P <sub>max</sub> (W)	267	271	275
MPP Voltage V <sub>mpp</sub> (V)	36.3	36.6	36.8
MPP Current I <sub>mpp</sub> (A)	7.36	7.41	7.47
Open Circuit Voltage V <sub>oc</sub> (V)	40.6	40.8	41.0
Short Circuit Current I <sub>sc</sub> (A)	8.41	8.46	8.50

<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 A M1.5

## Dimensions (mm)

