



# LG NeON<sup>®</sup> 2 Black

LG320/325N1K-V5

**HIGH PERFORMANCE - GREAT LOOKS**

**TOTALLY BLACK / UP TO 325 WATTS**

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



## YOUR HOME DESERVES THE NeON<sup>®</sup> 2 Black - 320W/325W

The LG NeON<sup>®</sup> 2 Black has seen many improvements that really matter, from longer warranties and higher efficiency to stronger frames and better wind loading as well as an excellent uniform looking panel. This panel is ideal for homes seeking a visually pleasing solar panel and for roofs where space is tight or where future system expansions are considered e.g. to incorporate battery storage. The LG NeON<sup>®</sup> modules with their double sided cells and CELLO technology absorb light from the front and the back of the module. This technology sets a new standard for innovation and was recognised with the 2015 Photovoltaic Innovation Award at the Intersolar Industry Event in Germany. LG Solar<sup>™</sup> also won the 2016 Intersolar award for our NeON<sup>®</sup> Bifacial range.



### Great Visual Appearance

LG NeON<sup>®</sup> 2 Black panels with their black cells, black frames and black backsheet give an aesthetically pleasing uniform appearance. Your home deserves the great looking LG NeON<sup>®</sup> 2 Black.



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

The LG product warranty is 15 years longer than 10 years offered by many competing brands. 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> 2 Black's 325W panels are a similar physical size to many competing 300W panels. This means up to 8% more electricity per square metre with LG NeON<sup>®</sup> 2 Black. So you can get more power from your roof space with LG panels.



### Improved 25 Year Performance Warranty

The initial degradation of LG NeON<sup>®</sup> R panels is -2%, in the 1st year and the annual rate of degradation is -0.35%/ year thereafter. This brings an 89.6% warranted output after 25 years, compared to 80.2% for many competing brand panels.

## ABOUT LG SOLAR™

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 32 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™ won the Australian Top Brand award in 2016, 2017 and 2018.

LG Solar panels offer a peace of mind solution, as they are backed by a very large, diversified company with over 100 subsidiaries.

## KEY FEATURES



### Proven Field Performance

LG Solar™ has been involved in a number of comparison tests of the LG Solar™ panels against many other brand panels. LG NeON<sup>®</sup> 2 models are consistently among the best performing in these tests.



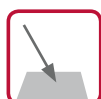
### Corrosion Resistance Certification

LG NeON<sup>®</sup> 2 Black 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.



### Strict Quality Control Reliable for the Future

The quality control of LG world-class production processes is monitored and improved to Six Sigma quality control standards, which includes 500+ monitoring points to effectively maintain and improve our uncompromising quality.



### Multi Anti-reflective Coatings Increase Output

LG Solar™ is using an anti-reflective coating on the panels 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> 2 Black, has an improved temperature co-efficient to many competing panels, which means in hot weather LG NeON<sup>®</sup> 2 Black panels will deliver higher output.



### "CELLO" Technology Increases Power

"CELLO" Multi wire busbar cell technology 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, as the panel degrades less.



### Extensive Testing Programme

LG Solar panels are tested between 2 to 3 times the International Standards at our in-house testing laboratories, ensuring a very robust and longer lasting solar module.



### Extreme Wind Load Resistance

LG modules have a strong double walled frame. When it comes to wind forces (rear load) many competitor modules are certified to 2400 Pascals. LG modules are certified to 4000 Pascals, which provides more strength and durability to a standard module.



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

A 320 Watt panel flash test will show somewhere between 320W and 329.6W. Some competing 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 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> 2 BLACK – ELEGANT DESIGN. GREAT LOOKS.

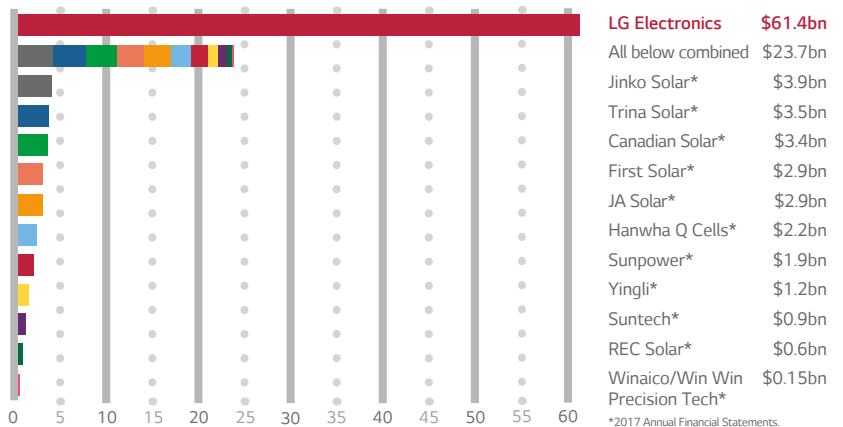
As its name suggests, the monocrystalline LG NeON<sup>®</sup> 2 Black solar module is completely black and will look great on your roof. Featuring the black CELLO look, it can withstand a static front panel load of 5400 Pascals and a rear panel load of 4000 Pascals which provides more strength and durability than a standard panel. LG is also improving its linear performance guarantee to at least 89.6% of nominal output after 25 years.

## 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.

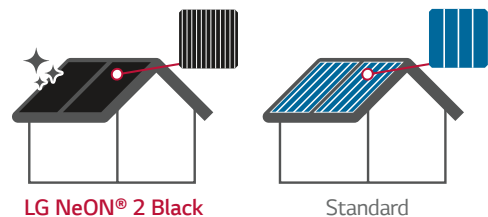
Good to know: LG Electronics Australia Pty Ltd is the warrantor in Australia and NZ for your solar modules. So LG support, via offices in every Australian mainland state and NZ and through our 70 strong, Australia wide dealer network, is only a phone call away.

The Warrantor's 2017 Global Sales in Billions of US Dollars



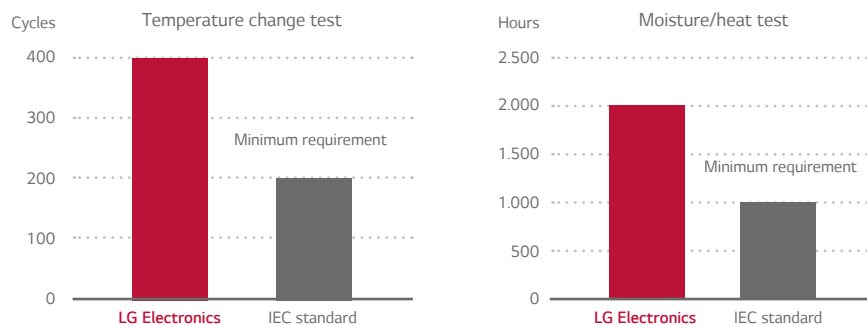
## UNDERSTATED ELEGANCE FOR BEAUTIFUL ROOFS

The LG NeON<sup>®</sup> 2 Black 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 International Awards.

## POWERFUL DESIGN, GUARANTEED ROBUST

With reinforced frame design, the LG NeON 2 can endure 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 is 4000 Pa which is more than the wind load resistance of many competing panels (2400 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
Cell Dimensions	161.7 x 161.7 mm
# of Busbar	12 (Multi Wire Busbar)
Dimensions (L x W x H)	1686 x 1016 x 40 mm
Front Load	5400 Pa
Rear Load	4000 Pa
Weight	17.1 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

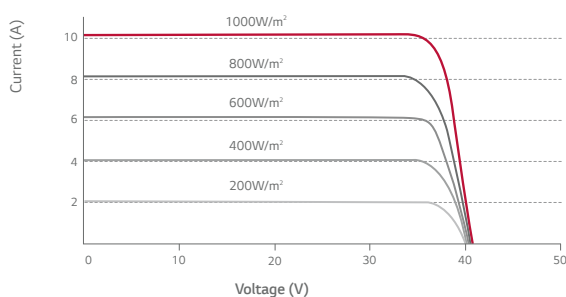
Certifications	ISO 9001, ISO 14001, ISO 50001 IEC 61215-1/-1-1/2:2016, IEC 61730-1/-2:2016, UL1703 OHSAS 1001, PV CYCLE IEC 61701:2012 Severity 6 (Salt Mist Corrosion Test) IEC 62716:2013 (Ammonia Test)
Module Fire Rating	Class C (UL 790, ULC/ORD C 1703)
Product Warranty	25 Years
Output Warranty of Pmax (Measurement Tolerance $\pm 3\%$ )	Linear Warranty <sup>1</sup>

<sup>1</sup> 1) 1st year: 98%, 2) After 1st year: 0.35% annual degradation, 3) 89.6% for 25 years

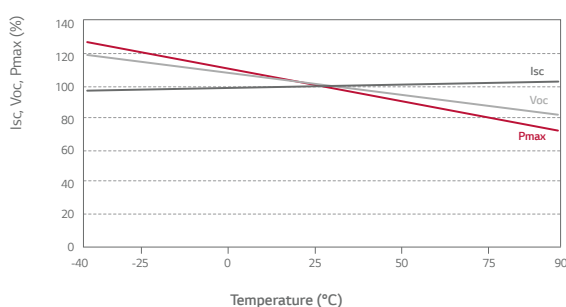
## Temperature Characteristics

NMOT	$42 \pm 3^\circ\text{C}$
Pmax	$-0.36\%/^\circ\text{C}$
Voc	$-0.27\%/^\circ\text{C}$
Isc	$0.03\%/^\circ\text{C}$

## Current – Voltage characteristics at various irradiance levels



## Current – Voltage characteristics at various cell temperatures



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

Module Type	320 W	325 W
Maximum Power Pmax (W)	320	325
MPP Voltage Vmpp (V)	33.3	33.7
MPP Current Imp (A)	9.62	9.65
Open Circuit Voltage Voc (V)	40.8	40.9
Short Circuit Current Isc (A)	10.19	10.23
Module Efficiency (%)	18.7	19.0
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	320 W	325 W
Maximum Power Pmax (W)	239	243
MPP Voltage Vmpp (V)	31.2	31.5
MPP Current Imp (A)	7.67	7.69
Open Circuit Voltage Voc (V)	38.3	38.4
Short Circuit Current Isc (A)	8.19	8.23

<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)

