



LG NeON[®] 2

LG385/390N2T-A5 BiFacial

18.2%/18.5% efficiency and boost power up to 30% in optimal install conditions



THE NeON[®] 2 BiFacial - 290W

The new LG NeON[®] 2 BiFacial has seen many improvements to earlier LG panels, from longer warranties and higher efficiency to stronger frames and better wind loading.

The LG NeON[®] 2 BiFacial module combines the NeON[®] 2 double sided CELLO cell with a clear backsheet. This enables the panel to generate power from both the front and rear of the module. Additional power is generated from the light that is reflected off the roof or ground surface underneath being absorbed by the rear side of the cells of the module. The NeON[®] 2 BiFacial 390W also adopts LG's unique CELLO technology which replaces 3 busbars with 12 multi wire busbars to reduce current resistance, enhancing power output and panel reliability.

Higher output via tilt frames



In optimised tilt frame installations the 385/390W BiFacial panel can achieve close to 30% more output from light absorption via the rear of the double sided cell. Higher reflective backgrounds and raised installation environments combined will increase the output far beyond that expected from a conventional monofacial panel.

More Power per Square Metre



LG NeON[®] 2 BiFacial 385/390W are a similar size to many conventional 320W panels. In internal LG tilt frame performance tests the LG NeON[®] 2 BiFacial 390W panel can produce the equivalent power of a 485W panel or more (24.5% more) in optimised installation conditions. This means you can get more power per square meter from the NeON[®] 2 BiFacial than many panels on the Australian and NZ markets.

25 Years Product Warranty (Parts & Labour)



The LG product warranty is 15 years longer than the industry standard 10 years and covers 25 years. The Warranty is held by LG Electronics Australia and New Zealand. The warranty includes replacement labour and transport.



Improved 25 Year Performance Warranty

The initial degradation of cells has been improved from -3% to -2%, in the 1st year and the annual rate of degradation has fallen from -0.7%/year to -0.5%/ year thereafter. This brings an 86% warranted output after 25 years, compared to 80.2% for many standard panels.

Made in Korea

www.lgenergy.com.au

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 2013, 2015 and 2016 the LG NeON[®] range won the acclaimed Intersolar Award in Germany.

The NeON 2 Bifacial represents a new development of the LG NeON[®] range and this particular model won the 2016 Intersolar Award in Germany, which demonstrates LG Solar's lead in innovation and commitment to the renewable energy industry. With over 200 lesser known brand panels selling in Australia, 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 has been involved in a number of comparison tests of the LG panels against many other brand panels. LG NeON[®] 2 BiFacial models are consistently among the best performing in these tests.



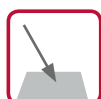
LG Corrosion Resistance Certification

LG NeON[®] 2 BiFacial 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 solar production 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 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[®] 2 BiFacial, has an improved temperature co-efficient to standard modules, which means in hot weather LG NeON[®] 2 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[®] 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 more than double - 4300 Pascals, which provides at least double the strength and durability to a standard module.



Double-Sided Cell Structure

In conventional panels the cells produce energy from the front only. The NeON[®] 2 Cell produces energy from both the front as well as the back of the cell. This innovative technology allows the absorption of light from behind the panel which raises the panel's electricity output.



Anti PID Technology for Yield Security

PID (Potential Induced Degradation) affects the long term ability of panels to produce high level electricity output. LG panels have anti PID technology and have been successfully tested by leading third party laboratories regarding PID resistance.



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[®] 2 - BiFacial

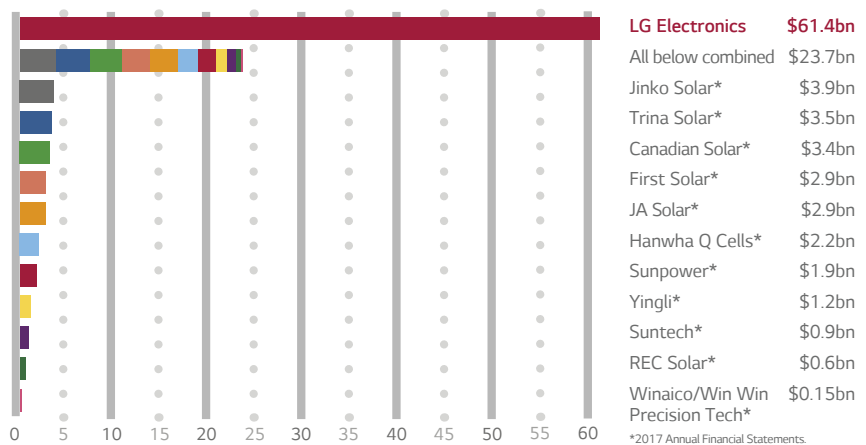
LG NeON[®] 2 *BiFacial* – INNOVATIVE, CLEVER, EFFICIENT.

LG NeON[®] 2 *BiFacial* solar modules now offer even more performance. Featuring a classy new design with a total of 72 cells, it is LG's latest module. LG has extended its product warranty from 10 for many other competitor panels to 25 years and improving its linear performance guarantee to at least 86% of nominal output at 25 years. The LG NeON[®] 2 *BiFacial* is an excellent choice for high performing long lasting solar systems.

LOCAL WARRANTY, GLOBAL STRENGTH

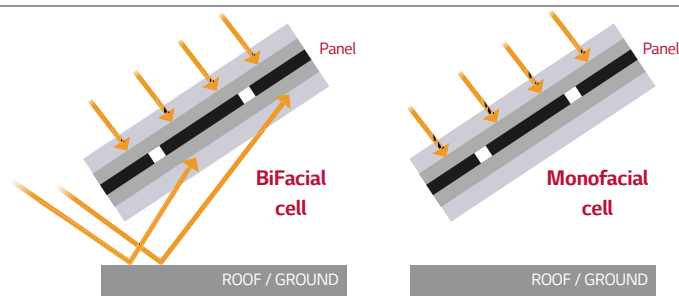
LG Solar is part of LG Electronics Inc., a global and financially strong company, with over 50 years of experience in technology. Good to know: LG Electronics Australia Pty Ltd is the warrantor in Australia and NZ for your solar modules. So LG support, via offices in every Australian mainland state and NZ and through our 70 strong, Australia wide dealer network, is only a phone call away.

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



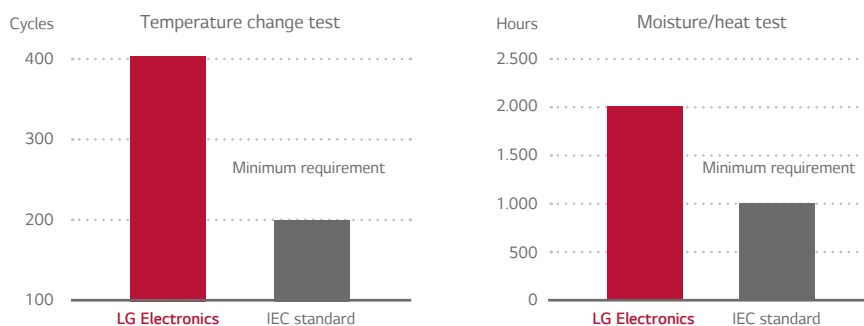
HIGHER OUTPUT, HIGHER YIELD

In the case of the NeON[®] 2 *BiFacial* the transparent back sheet allows reflected light to reach the rear of the cell increasing electricity production by up to 30% over conventional single sided cell 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 Standard).



Our panel range have won a string of International Awards.

Extended Product Warranty

10yrs + 15yrs

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

Electrical Properties (STC*)

Module		LG385N2T-A5	Bifacial Gain**				LG390N2T-A5	Bifacial Gain**			
			5%	10%	20%	30%		5%	10%	20%	30%
Maximum Power (Pmax)	[W]	385	404	424	462	501	390	410	429	468	507
MPP Voltage (Vmpp)	[V]	41.0	41.0	41.0	41.1	41.1	41.4	41.4	41.4	41.5	41.5
MPP Current (Imp)	[A]	9.40	9.86	10.34	11.24	12.19	9.43	9.90	10.36	11.28	12.22
Open Circuit Voltage (Voc)	[V]	49.1	49.1	49.1	49.2	49.2	49.2	49.2	49.2	49.3	49.3
Short Circuit Current (Isc)	[A]	10.11	10.61	11.12	12.10	13.12	10.15	10.66	11.17	12.18	13.2
Module Efficiency	[%]	18.2	19.1	20.0	21.9	23.7	18.5	19.4	20.3	22.1	24.0
Operating Temperature	[°C]	-40 ~ +90									
Maximum System Voltage	[V]	1000									
Maximum Series Fuse Rating	[A]	20									
Pmax Bifaciality Coefficient***	[%]	76(output warranty for 25years)									
Power Tolerance (%)	[%]	0 ~ +3									

The nameplate power output is measured and determined by LG Electronics at its sole and absolute discretion.

* STC (Standard Test Condition): Irradiance 1,000 W/m², Cell temperature 25 °C, AM 1.5 (Measurement tolerance: ±3%, Electrical Parameter tolerance: ±5%)

** Bifacial Gain: The additional gain from the back side compared to the front side at standard test conditions. Please refer to the BiFacial Design Guide to determine potential BiFacial Gain based on actual installation conditions.

*** Pmax Bifaciality Coefficient : Pmax rear / Pmax front. Pmax Bifaciality Coefficient is warranted for 25 years based on front output warranty of Pmax. (Tolerance: ±7%)

Mechanical Properties

Cells	6 x 12
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)	2064 x 1024 x 40 mm
Front Load	5400 Pa
Rear Load	4300 Pa
Weight	22 kg
Connector Type	Genuine MC4, IP68 (Male: PV-KST4) (Female: PV-KBT4)
Junction Box	IP68 with 3 bypass diodes
Length of Cables	2 x 1200 mm
Front cover	High transmission tempered glass
Frame	Anodised aluminium

Electrical Properties (NOCT*)

Module Type	385 W	390 W
Maximum Power Pmax (W)	285	289
MPP Voltage Vmpp (V)	38.0	38.3
MPP Current Imp (A)	7.51	7.54
Open Circuit Voltage Voc (V)	45.8	45.9
Short Circuit Current Isc (A)	8.14	8.17

* NOCT (Nominal Operating Cell Temperature): Irradiance 800 W/m², ambient temperature 20 °C, wind speed 1 m/s

Certifications and Warranty

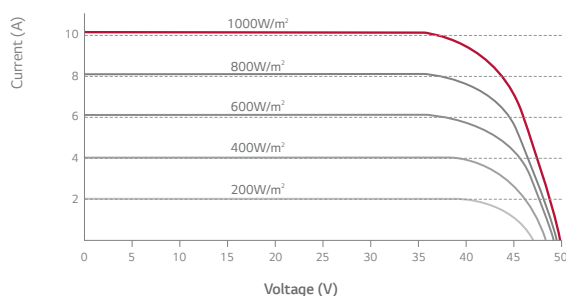
Certifications	ISO 9001, IEC 61215, IEC 61730-1/-2, IEC 61701(Salt Mist Corrosion Test), IEC 62716 (Ammonia Test)
Module Fire Rating	Class C
Product Warranty	25 Years (Manufactured after 1/3/2018)
Output Warranty of Pmax (Measurement Tolerance ± 3%)	Linear Warranty ¹

¹ 1) 1st year: 98%, 2) After 1st year: 0.5%p annual degradation, 3) 86% for 25 years

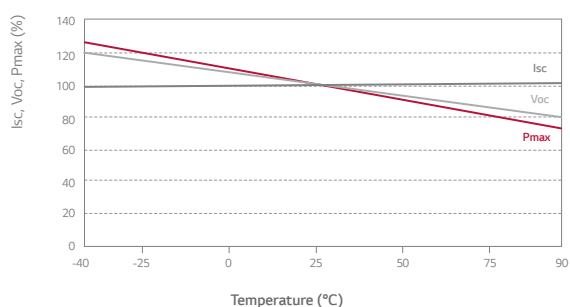
Temperature Characteristics

NOCT	45 ± 3 °C
Pmax	-0.36 %/°C
Voc	-0.27 %/°C
Isc	0.03 %/°C

Current – Voltage characteristics at various irradiance levels



Current – Voltage characteristics at various cell temperatures



Dimensions (mm)

