EN

THE NEXT EVOLUTION LEAP

LG NeON™ 2 BiFacial

HIGHLIGHT 2016

UP TO 375 WATT IN TOTAL

BIFACIAL MODULE

TRANSPARENT BACKSHEET

inter solar award 2016 WINNER

LG Life's Good

LG NeON™ 2 BiFacial

www.lg-solar.com/uk

LG NeON™ 2 BiFacial – UNLEASH THE POWER!

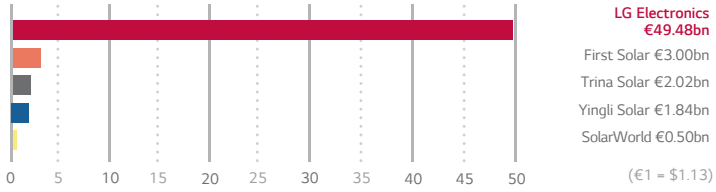
The LG NeON™ 2 BiFacial is based on the well-known high-performance module LG NeON™ 2 and has been awarded with the "Intersolar Award 2016". Already on the front side, the LG300N1T-G4 module reaches with its 60 highly efficient, mono-crystalline cells a basic power of 300 Watt peak (Wp).
Through the use of bi-facial cells and a transparent back sheet, the power of the LG NeON™ 2 solar modules with CELLO technology can now be fully exploited. Thanks to the additional yield from the back side of the module ("bifacial bonus") the overall performance of the LG NeON™ 2 BiFacial module increases under optimal conditions up to 375 W.

LOCAL GUARANTOR, GLOBAL SECURITY

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

Good to know: LG Electronics is the warrantor for your solar modules. LG Electronics has been present in Europe with many local subsidiaries for decades.

The warrantor's 2014 sales in billions of euros

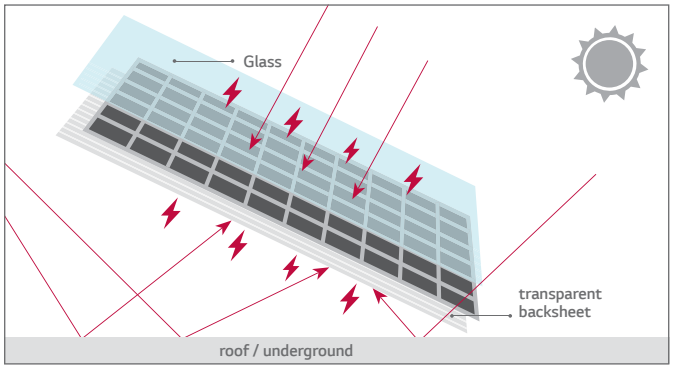


(€1 = $1.13)

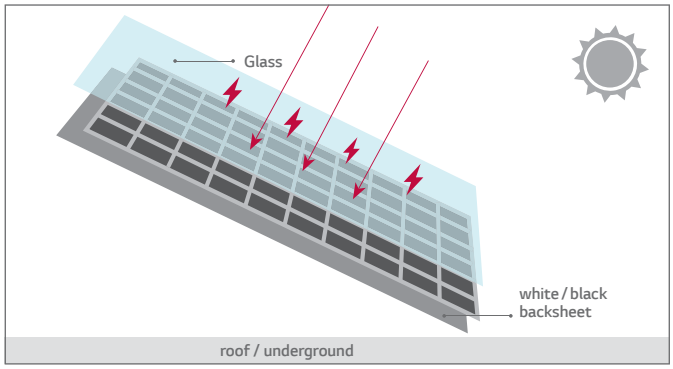
LG NeON™ 2 BiFacial – BONUS!

Traditional, single-sided active cells and modules can absorb incident light only on the front side and convert it to electricity. The LG NeON™ 2 BiFacial, however, has double-sided active cells and a translucent foil on the back. This enables to use both the light falling on the front side and on the back side, and increase energy yield by up to 25% compared to a monofacial module of equal nominal power.

Bifacial module

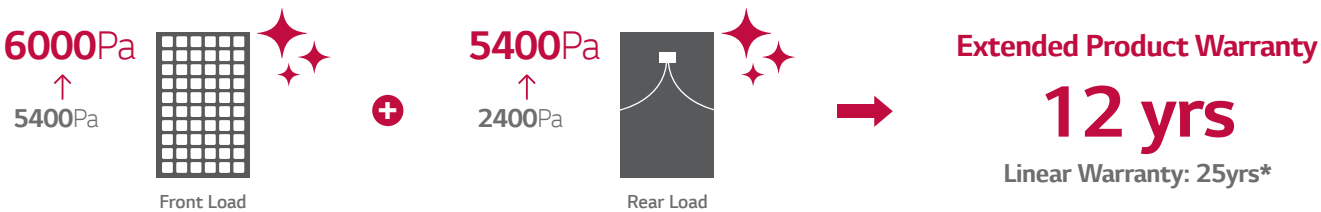


Monofacial module



POWERFUL DESIGN, GUARANTEED ROBUST

With reinforced frame design, LG NeON™ 2 BiFacial can endure a front load up to 6000 Pa (represents snow height of normal snow of more than 1,8 meters) and a rear load up to 5400 Pa (represents wind speed of up to 93 m/s, compare max. wind speed of Hurricane Katrina 2005 of max. 75 m/s).



* 1) 1st year: 98%
2) After 2nd year: 0.6%p annual degradation
3) 83.6% for 25 years

LG NeON™ 2 BiFacial

LG300N1T-G4

60 cell

LG NeON™ 2 BiFacial is designed to utilize both sides of the PV module for absorbing more light and generating more energy. It also adopts the prizewinning Cello technology which replaces 3 busbars with 12 thin wires to enhance power output and reliability. It is possible to produce a surplus of output energy with LG NeON™ 2 BiFacial compared with normal monofacial modules.

KEY FEATURES

Enhanced Performance Warranty

LG NeON™ 2 BiFacial has an enhanced linear performance warranty with a max. annual degradation of -0,6 %. Thus, LG guarantees a min. of 83,6 % of the nominal power even after 25 years of operation.

Bifacial Energy Yield

It is possible to produce 25% more energy than with conventional modules under optimal conditions.

Better Performance on a Sunny Day

LG NeON™ 2 BiFacial now performs better than many other modules on sunny days thanks to its improved temperature coefficiency

More Power also on a Cloudy Day

LG NeON™ 2 BiFacial gives good performance even on a cloudy day due to its very good weak sunlight performance.

High Power Output

LG NeON™ 2 BiFacial has been designed using LG's new CELLO technology. The cell efficiency on the rear side is only slightly lower (20 %) than on the front side (21 %).

Almost Zero LID (Light Induced Degradation)

The n-type cells used in LG NeON™ 2 BiFacial have almost no boron, which often causes the initial efficiency drop, of conventional modules.

About LG Electronics

LG Electronics is a global big player, committed to expanding its operations with the solar market. The company first embarked on a solar energy source research program in 1985, supported by LG Group's vast experience in the semi-conductor, LCD, chemistry and materials industries. In 2010, LG Solar successfully released its first MonoX® series to the market, which is now available in 32 countries. The NeON™ (previous. MonoX® NeON) and The NeON™2 won the "Intersolar AWARD" in 2013 and 2015, which demonstrates LG Solar's lead, innovation and commitment to the industry.

LG NeON™ 2 BiFacial

Mechanical Properties

Cells	6 x 10
Cell Vendor	LG
Cell Type	Monocrystalline / N-type
Cell Dimensions	156.75 x 156.75 mm / 6 inches
# of Busbar	12 (Multi Wire Busbar)
Dimensions (L x W x H)	1640 x 1000 x 40 mm
Front Load	6000 Pa
Rear Load	5400 Pa
Weight	17.0 ± 0.5 kg
Connector Type	MC4
Junction Box	IP67 with 3 Bypass Diodes
Length of Cables	1000 mm x 2ea
Glass	High Transmission Tempered Glass
Rear cover	Transparent foil
Frame	Anodized Aluminium

Certifications and Warranty

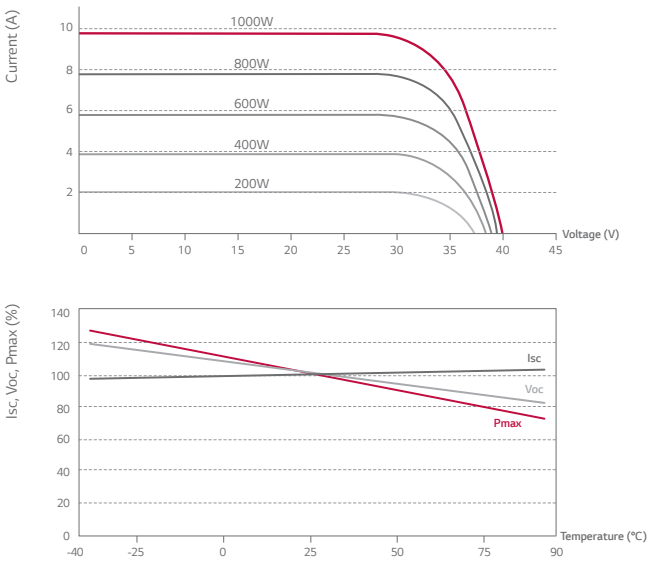
Certifications	IEC 61215, IEC 61730-1/-2
	IEC 62716 (Ammonia corrosion test)
	IEC 61701(Salt mist corrosion test)
	ISO 9001
Fire Rating	Class C
Product Warranty	12 Years
Output Warranty of Pmax	Linear Warranty[1]

[1] 1) 1st year: 98%, 2) After 2nd year: 0.6%p annual degradation, 3) 83.6% for 25 years

Temperature Characteristics

NOCT	[°C]	45 ± 3
Pmax	[%/°C]	-0.38
Voc	[%/°C]	-0.28
Isc	[%/°C]	0.03

Characteristic Curves



Electrical Properties (STC[2])

Module		LG300N1T-G4	Bifacial Gain[3] 10%	20%	25%
Maximum Power (Pmax)	[W]	300	330	360	375
MPP Voltage (Vmpp)	[V]	32.9	32.9	32.9	33.0
MPP Current (Impp)	[A]	9.15	10.07	10.98	11.44
Open Circuit Voltage (Voc)	[V]	40.1	40.1	40.2	40.3
Short Circuit Current (Isc)	[A]	9.65	10.68	11.65	12.14
Module Efficiency	[%]	18.3	20.1	22.0	22.9
Operating Temperature	[°C]	-40 ~ +90			
Maximum System Voltage	[V]	1000			
Maximum Series Fuse Rating	[A]	20			
Power Tolerance (%)	[%]	0 ~ +3			

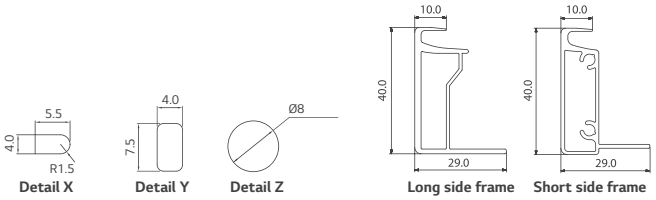
[2] STC (Standard Test Condition): Irradiance 1000 W/m², Module Temperature 25 °C, AM 1.5
The nameplate power output is measured and determined by LG Electronics at its sole and absolute discretion.
[3] Depending on mounting height and albedo of the underground.

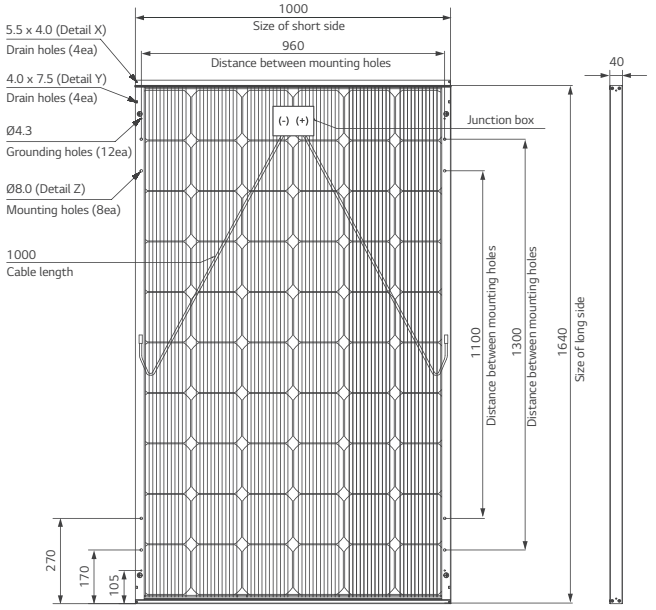
Electrical Properties (NOCT[4])

Module		LG300N1T-G4
Maximum Power (Pmax)	[W]	221.9
MPP Voltage (Vmpp)	[V]	30.4
MPP Current (Impp)	[A]	7.29
Open Circuit Voltage (Voc)	[V]	37.3
Short Circuit Current (Isc)	[A]	7.77

[4] NOCT (Nominal Operating Cell Temperature): Irradiance 800 W/m², module temperature 20 °C, wind speed 1 m/s

Dimensions (mm)





The distance between the center of the mounting/grounding holes.

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