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# **EnergyPal**

## **Solar Panel Guide Specification Data Sheet**

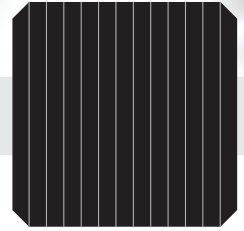
**LG Electronics, Inc.  
LG NeON® 2 BiFacial 60cells 330-340  
LG340N1T - V5**

Also available on the web at  
[EnergyPal.com/lg-electronics-inc-solar-panels/lg340n1t-v5](http://EnergyPal.com/lg-electronics-inc-solar-panels/lg340n1t-v5)

# LG NeON<sup>®</sup> 2 BiFacial

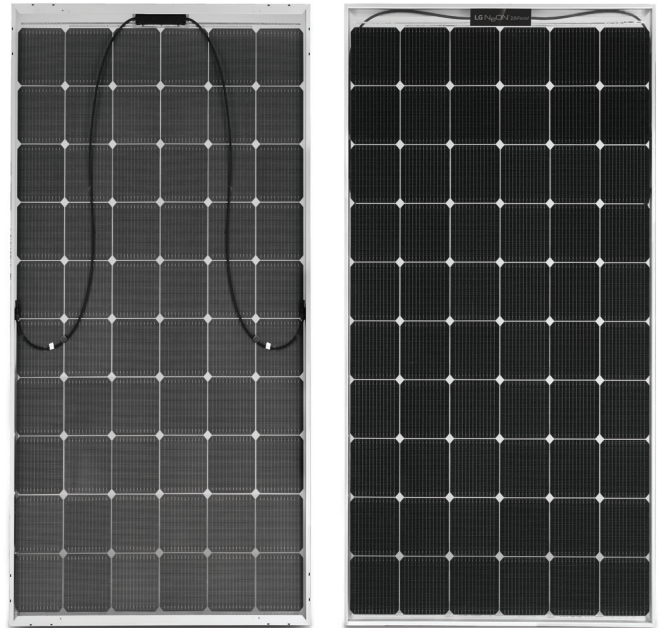
LG315N1T-A5 | LG310N1T-A5

60



## 315W | 310W

The LG NeON<sup>®</sup> 2 BiFacial is designed to absorb irradiance not only from the front but also the rear of its NeON<sup>®</sup> cell by using a transparent back sheet. The dual faces of the cell allows for higher energy generation.



### Feature



#### Enhanced Performance Warranty

LG NeON<sup>®</sup> 2 BiFacial has an enhanced performance warranty. LG NeON<sup>®</sup> 2 BiFacial is guaranteed at least 84.8% of initial performance.



#### Bifacial Energy Yield

LG NeON<sup>®</sup> 2 BiFacial modules use highly efficient bifacial solar cell, "NeON" applied Cello Technology. Through the Cello technology, LG NeON<sup>®</sup> 2 BiFacial can achieve up to 30% more energy than standard PV module.



#### Better Performance on a Sunny Day

LG NeON<sup>®</sup> 2 BiFacial now performs better on sunny days thanks to its improved temperature coefficient.



#### More Generation on a Cloudy Day

LG NeON<sup>®</sup> 2 BiFacial gives good performance even on a cloudy day due to its low energy reduction in weak sunlight.



#### BOS (Balance Of System) Saving

LG NeON<sup>®</sup> 2 BiFacial can reduce the total number of strings due to its high module efficiency resulting in a more cost effective and efficient solar power system.



#### Near Zero LID (Light Induced Degradation)

The n-type cells used in LG NeON<sup>®</sup> 2 BiFacial have almost no boron, which may cause the initial efficiency to drop, leading to less LID.

### 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<sup>®</sup> series to the market, which is now available in 32 countries. The NeON<sup>®</sup> (previous MonoX<sup>®</sup> NeON), NeON<sup>®</sup>2, NeON<sup>®</sup>2 BiFacial won the "Intersolar AWARD" in 2013, 2015 and 2016, which demonstrates LG Solar's lead, innovation and commitment to the industry.



## LG315N1T-A5 | LG310N1T-A5

### Electrical Properties (STC\*)

	LG315N1T-A5	Bifacial Gain**				LG310N1T-A5	Bifacial Gain**				
		5%	10%	20%	30%		5%	10%	20%	30%	
Maximum Power (Pmax)	[W]	315	331	347	378	410	310	326	341	372	403
MPP Voltage (Vmpp)	[V]	33.5	33.5	33.5	33.6	33.6	33.1	33.1	33.1	33.2	33.2
MPP Current (Impp)	[A]	9.41	9.88	10.36	11.25	12.20	9.38	9.85	10.30	11.20	12.14
Open Circuit Voltage (Voc)	[V]	40.8	40.8	40.8	40.9	40.9	40.7	40.7	40.7	40.8	40.8
Short Circuit Current (Isc)	[A]	10.12	10.63	11.14	12.11	13.12	10.08	10.58	11.09	12.06	13.07
Module Efficiency	[%]	17.8	18.7	19.6	21.3	23.1	17.5	18.4	19.2	21.0	22.6
Operating Temperature	[°C]	-40 ~ +90									
Maximum System Voltage	[V]	1,000									
Maximum Series Fuse Rating	[A]	20									
Pmax Bifaciality Coefficient	[%]	82									
Power Tolerance	[%]	0 ~ +3									

\* STC (Standard Test Condition): Irradiance 1,000 W/m<sup>2</sup>, cell Temperature 25 °C, AM 1.5

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

\*\* Bifacial Gain: The additional gain from the back side compared to the power of the front side at the standard test condition. It depends on installation condition.

\*\*\* Bifaciality Coefficient: 25 years warranty based on front output warranty, tolerance ± 7%

### Mechanical Properties

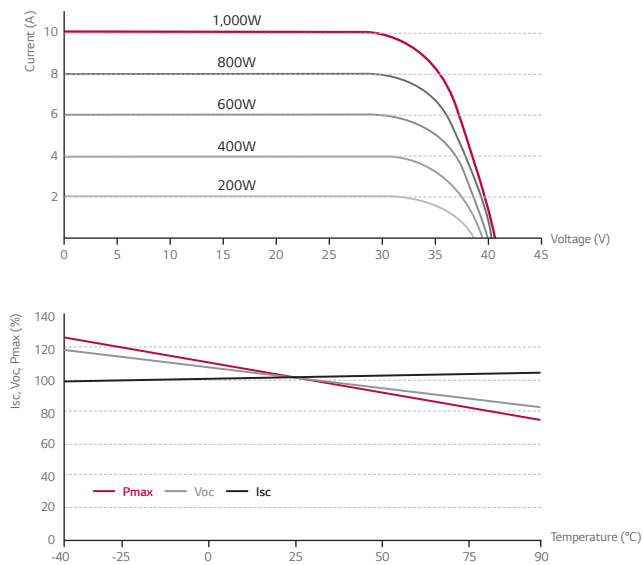
Cells	6 x 10
Cell Type	Monocrystalline / N-type
Cell Dimensions	161.7 x 161.7 mm / 6 inches
# of Busbar	12 (Multi Wire Busbar)
Dimensions (L x W x H)	1,730 x 1,024 x 40 mm
Front Load	6,000 Pa
Rear Load	5,400 Pa
Weight	19.6 kg
Connector Type	MC4 (MC)
Junction Box	IP68 with 3 Bypass Diodes
Cables	1,000 mm x 2 ea
Glass	High Transmission Tempered Glass
Frame	Anodized Aluminium

### Electrical Properties (NOCT\*)

Model	LG315N1T-A5	LG310N1T-A5	
Maximum Power (Pmax)	[W]	233	229
MPP Voltage (Vmpp)	[V]	31.0	30.6
MPP Current (Impp)	[A]	7.51	7.49
Open Circuit Voltage (Voc)	[V]	38.0	37.9
Short Circuit Current (Isc)	[A]	8.14	8.11

\* NOCT (Nominal Operating Cell Temperature): Irradiance 800 W/m<sup>2</sup>, Ambient temperature 20 °C, wind speed 1 m/s

### Characteristic Curves



### Certifications and Warranty

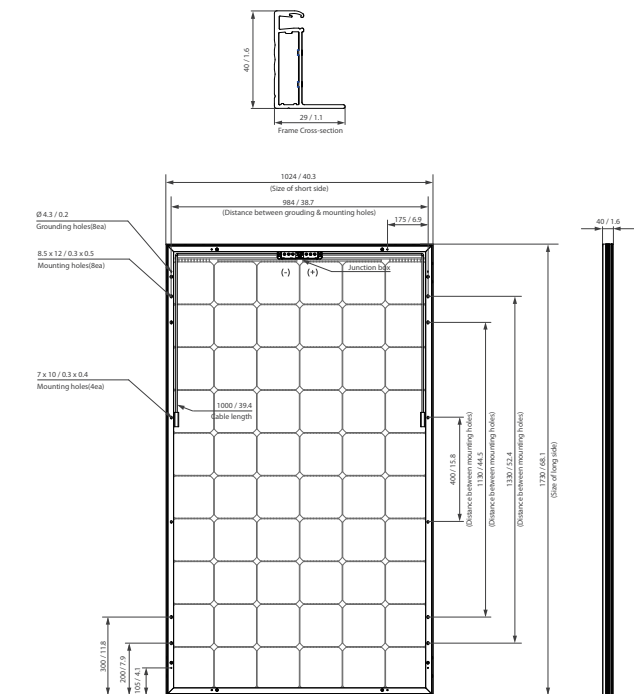
Certifications	UL 1703
	IEC 61215, IEC 61730-1/-2
	IEC 61701 (Salt mist corrosion test)
	IEC 62716 (Ammonia corrosion test)
Module Fire Performance	Type 1
Fire Resistance Class	Class C
Product Warranty	12 Years
Output Warranty of Pmax	Linear Warranty*

\* 1) 1st year: 98%, 2) After 1st year: 0.55% annual degradation, 3) 84.8% for 25 years

### Temperature Characteristics

NOCT	[ °C ]	45 ± 3
Pmax	[%/°C]	-0.37
Voc	[%/°C]	-0.27
Isc	[%/°C]	0.03

### Dimensions (mm / inch)



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

