

LG NeON[®] 2

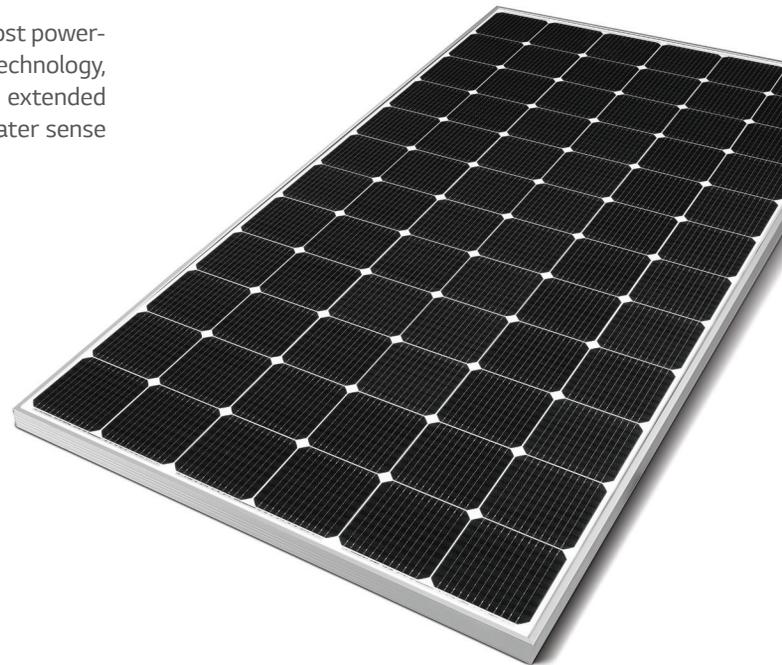
LG405N2W-V5

72

405W

(Make-To-Order Product)

The LG NeON[®] 2 is LG's best selling solar module, and is one of the most powerful and versatile modules on the market today. Featuring LG's Cello Technology, the LG NeON[®] 2 increases power output. New updates include an extended performance warranty from 86% to 89.6% to give customers a greater sense of reliability and peace of mind.



Feature



Enhanced Performance Warranty

LG NeON[®] 2 has an enhanced performance warranty. After 25 years, LG NeON[®] 2 is guaranteed to perform at minimum 89.6% of initial performance.



Enhanced Product warranty

LG has extended the warranty of the NeON[®] 2 to 25 years, which is among the top of industry standards.



Better Performance on a Sunny Day

LG NeON[®] 2 now performs better on sunny days, thanks to its improved temperature coefficient.



BOS (Balance Of System) Saving

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

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), NeON[®]2, NeON[®]2 BiFacial won the "Intersolar AWARD" in 2013, 2015 and 2016, which demonstrates LG Solar's lead, innovation and commitment to the industry.



LG NeON[®]2

LG405N2W-V5

General Data

Cell Properties(Material / Type)	Monocrystalline / N-type
Cell Maker	LG
Cell Configuration	72 Cells (6 x 12)
Number of Busbars	12EA
Module Dimensions (L x W x H)	2,024mm x 1,024mm x 40 mm
Weight	20.3 kg
Glass(Material)	Tempered Glass with AR Coating
Backsheet(Color)	White
Frame(Material)	Anodized Aluminium
Junction Box(Protection Degree)	IP 68
Cables(Length)	1,200 mm x 2EA
Connector(Type / Maker)	MC 4 / MC

Certifications and Warranty

Certifications	IEC 61215-1/-1-1/2:2016, IEC 61730-1/2:2016, UL 1703
	ISO 9001, ISO 14001, ISO 50001
	OHSAS 18001, PV CYCLE
Salt Mist Corrosion Test	IEC 61701 : 2012 Severity 6
Ammonia Corrosion Test	IEC 62716 : 2013
Module Fire Performance	Type 1 (UL 1703)
Fire Rating	Class C (UL 790, ULC/ORD C 1703)
Solar Module Product Warranty	25 Years
Solar Module Output Warranty	Linear Warranty*

* 1) First year : 98% 2) After 1st year : 0.35% annual degradation 3) 89.6% for 25 years

Temperature Characteristics

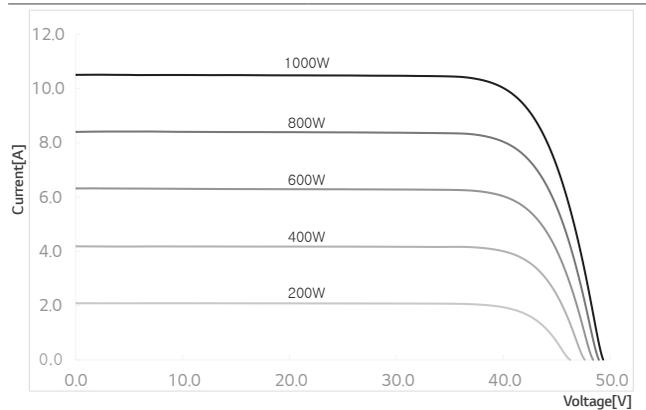
NMOT [†]	[°C]	42 ± 3
Pmax	[%/°C]	-0.36
Voc	[%/°C]	-0.26
Isc	[%/°C]	0.02

* NMOT (Nominal Module Operating Temperature): Irradiance 800 W/m², Ambient temperature 20 °C, Wind speed 1 m/s, Spectrum AM 1.5

Electrical Properties (NMOT)

Model	LG405N2W-V5	
Maximum Power (Pmax)	[W]	304
MPP Voltage (Vmpp)	[V]	38.4
MPP Current (Impp)	[A]	7.91
Open Circuit Voltage (Voc)	[V]	46.6
Short Circuit Current (Isc)	[A]	8.44

I-V Curves



Electrical Properties (STC*)

Model	LG405N2W-V5	
Maximum Power (Pmax)	[W]	405
MPP Voltage (Vmpp)	[V]	41.0
MPP Current (Impp)	[A]	9.89
Open Circuit Voltage (Voc, ±5%)	[V]	49.4
Short Circuit Current (Isc, ±5%)	[A]	10.51
Module Efficiency	[%]	19.5
Power Tolerance	[%]	0 ~ +3

* STC (Standard Test Condition): Irradiance 1000 W/m², Cell temperature 25 °C, AM 1.5

Operating Conditions

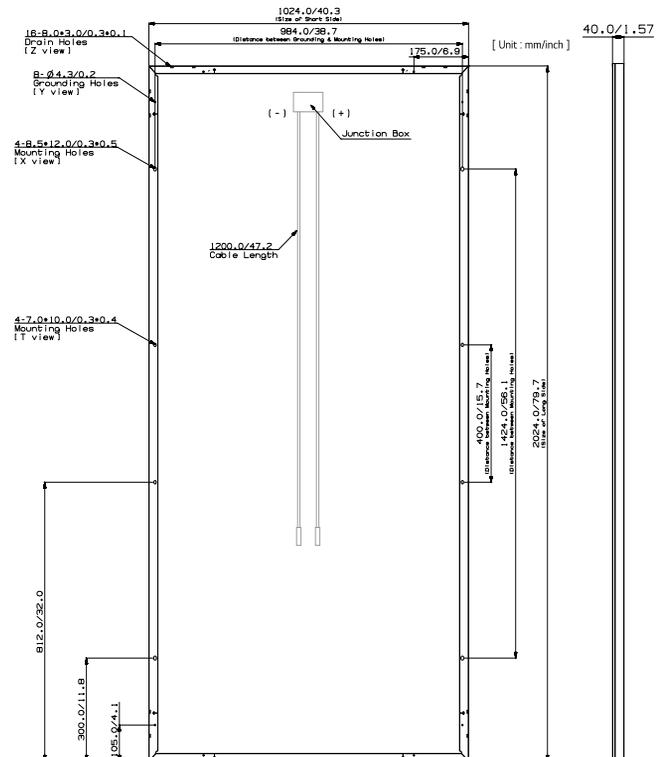
Operating Temperature	[°C]	-40 ~ +90
Maximum System Voltage	[V]	1,500(UL), 1000(IEC)
Maximum Series Fuse Rating	[A]	20
Mechanical Test Load (Front)	[Pa / psf]	5,400 / 113
Mechanical Test Load (Rear)	[Pa / psf]	3,000 / 63

* Test Load = Design load X Safety Factor (1.5)

Packaging Configuration

Number of Modules per Pallet	[EA]	25
Number of Modules per 40ft HQ Container	[EA]	550
Packaging Box Dimensions (L x W x H)	[mm]	2,080 x 1,120 x 1,226
Packaging Box Gross Weight	[kg]	551

Dimensions (mm / inch)



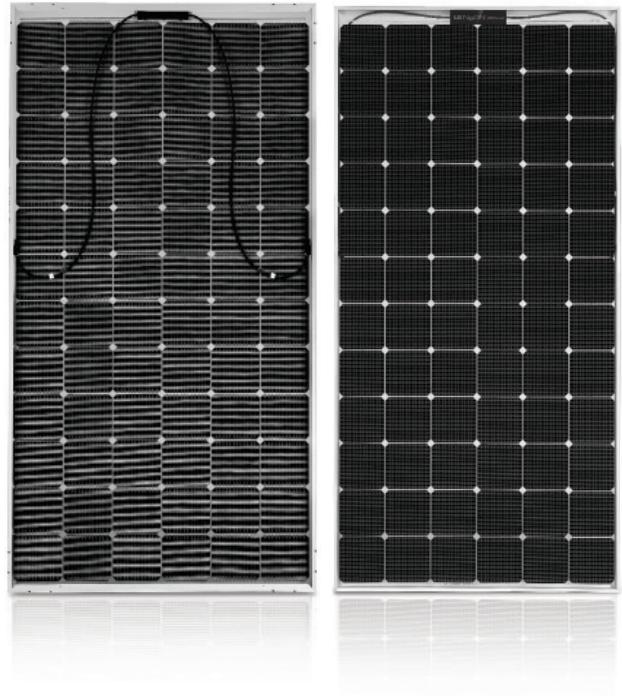
LG NeON[®] 2 BiFacial

LG390N2W-A5 | LG385N2W-A5

72

390W | 385W

The LG NeON[®] 2 BiFacial is designed to absorb irradiance not only from the front but also the rear of its NeON[®] cell by using a transparent backsheet. The dual faces of the cell allows for higher energy generation.



Feature



Enhanced Performance Warranty

LG NeON[®] 2 BiFacial has an enhanced performance warranty. LG NeON[®] 2 BiFacial is guaranteed at least 86% of initial performance.



Bifacial Energy Yield

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



Better Performance on a Sunny Day

LG NeON[®] 2 BiFacial now performs better on sunny days thanks to its improved temperature coefficient.



More Generation on a Cloudy Day

LG NeON[®] 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[®] 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[®] 2 BiFacial have almost no boron, which may cause the initial efficiency to drop, leading to less LID.

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LG NeON[®] 2 BiFacial

LG390N2W-A5 | LG385N2W-A5

Electrical Properties (STC*)

	[Unit]	LG390N2W - A5		Bifaical Gain**			LG385N2W - A5		Bifaical Gain**		
				5%	10%	20%	30%			5%	10%
Maximum Power (Pmax)	[W]	390	410	429	468	507	385	404	424	462	501
MPP Voltage (Vmpp)	[V]	41.4	41.4	41.4	41.5	41.5	41.0	41.0	41.0	41.1	41.1
MPP Current (Impp)	[A]	9.43	9.90	10.36	11.28	12.22	9.40	9.86	10.34	11.24	12.19
Open Circuit Voltage (Voc)	[V]	49.2	49.2	49.2	49.3	49.3	49.1	49.1	49.1	49.2	49.2
Short Circuit Current (Isc)	[A]	10.15	10.66	11.17	12.18	13.2	10.11	10.61	11.12	12.10	13.12
Module Efficiency	[%]	18.5	19.4	20.3	22.1	24.0	18.2	19.1	20.0	21.9	23.7
Operating Temperature	[°C]	-40 ~ +90									
Maximum System Voltage	[V]	1,500(UL) / 1,000(IEC)									
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

** 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.

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

Mechanical Properties

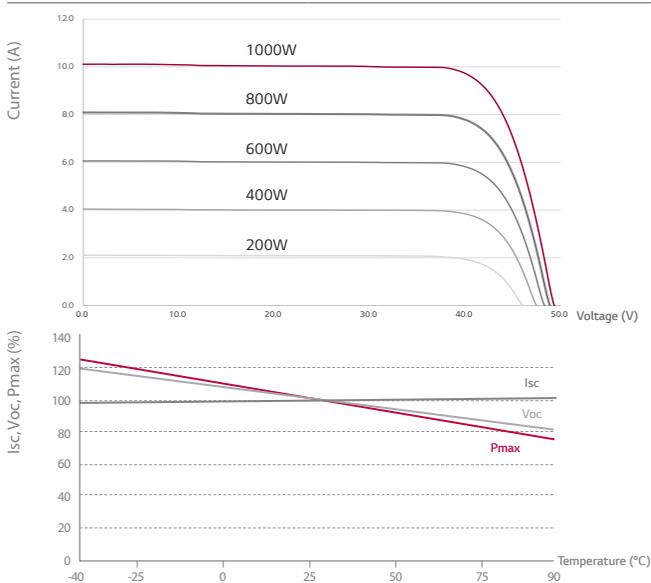
Cells	6 x 12
Cell Type	Monocrystalline / N-type
Cell Dimensions	161.7 x 161.7 mm / 6 inches
# of Busbar	12(Multi Wire Busbar)
Dimensions (L x W x H)	2,064 x 1,024 x 40 mm 81.26 x 40.31 x 1.57 in
Front Load	5,400 Pa / 113 psf
Rear Load	4,300 Pa / 90 psf
Weight	22.0 kg / 48.72 lb
Connector Type	MC4 (MC), PV-JM601A (JMTHY)
Junction Box	IP68 with 3 Bypass Diodes
Cables	1,200 mm x 2 ea / 47.24 in x 2 ea
Glass	High Transmission Tempered Glass
Frame	Anodized Aluminium

Electrical Properties (NOCT*)

Model		LG390N2W-A5	LG385N2W-A5
Maximum Power (Pmax)	[W]	289	285
MPP Voltage (Vmpp)	[V]	38.3	38.0
MPP Current (Impp)	[A]	7.54	7.51
Open Circuit Voltage (Voc)	[V]	45.9	45.8
Short Circuit Current (Isc)	[A]	8.17	8.14

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

Characteristic Curves



Certifications and Warranty

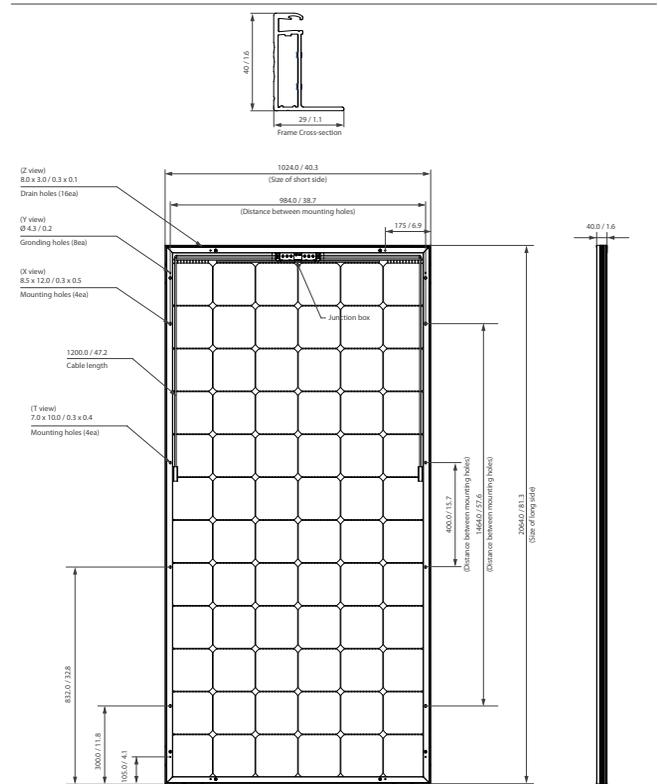
Certifications	UL 1703
	IEC 61215, IEC 61730-1/-2
	IEC 61701 (Salt mist corrosion test)
	IEC 62716 (Ammonia corrosion test)
	ISO 9001
Module Fire Performance	Type 1(UL 1703)
Fire Resistance Class	Class C (ULC/ORD C1703, IEC 61730)
Product Warranty	12 Years
Output Warranty of Pmax	Linear Warranty*

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

Temperature Characteristics

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

Dimensions (mm / inch)



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



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Product specifications are subject to change without notice.
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