# G NeON®H BiFacial

The LG NeON®H BiFacial is one of the most powerful and versatile modules on the market today. The LG NeON®H BiFacial is designed to absorb sunlight from both the front and rear sides of its cells by using a transparent back sheet, providing up to 30% higher electricity production.

# **445W**

# **FEATURES**



# **Enhanced Performance Warranty**

LG NeON®H BiFacial comes with an enhanced performance warranty. After 25 years of use, the LG NeON®H BiFacial is guaranteed to provide at least 96.4% of initial performance.



# **Industry-Leading Product Warranty**

LG offers an industry-leading 25 year product warranty on the NeON®H BiFacial.



# **Reliable Quality**

LG NeON®H BiFacial offers reliable and proven quality through rigorous testing\*.



# More Generation In Less Space

LG NeON®H BiFacial is designed for efficient use even in limited space thanks to its output-enhancing dual-side absorption of sunlight.

\* LG is subject to rigorous quality verification through PVEL PQP test. The PVEL PQP includes test sequences examining both the reliability and performance characteristics of PV modules











#### About LG Electronics

LG is transforming today's solar landscape, offering high-efficiency solar panels for customers who demand high performance, reliability and consistently strong energy yield from a brand they can trust. LG's modules feature high power outputs, outstanding durability, appealing aesthetics and high-efficiency technology.



# LG NeON®H BiFacial

#### LG445N2T-E6

#### General Data

Cell Properties (Material / Type)     Monocrystalline / N-type       Cell Maker     LG       Cell Configuration     144 Cells (6 x 24)       Number of Busbars     9 EA       Module Dimensions (L x W x H)     2,130 x 1,042 x 40 mm       Weight     22 kg       Glass (Material)     Tempered Glass with AR coating       Backsheet (Color)     Transparent       Frame (Material)     Anodized Aluminium       Junction Box (Protection Degree)     IP 68 with 3 Bypass Diodes       Cables (Length)     1,400 mm x 2 EA       Connector (Type / Maker)     MC4 / Stäubli		
Cell Configuration  144 Cells (6 x 24)  Number of Busbars  9 EA  Module Dimensions (L x W x H)  2,130 x 1,042 x 40 mm  Weight  22 kg  Glass (Material)  Backsheet (Color)  Transparent  Frame (Material)  Junction Box (Protection Degree)  Cables (Length)  144 Cells (6 x 24)  174 Tempered Glass with AR coating  Tempered Glass with AR coating  Transparent  IP 68 with 3 Bypass Diodes	Cell Properties (Material / Type)	Monocrystalline / N-type
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Glass (Material)  Backsheet (Color)  Frame (Material)  Junction Box (Protection Degree)  Cables (Length)  Tempered Glass with AR coating  Transparent  Anodized Aluminium  Junction Box (Protection Degree)  1,400 mm x 2 EA	Module Dimensions (L x W x H)	2,130 x 1,042 x 40 mm
Backsheet (Color) Transparent Frame (Material) Anodized Aluminium Junction Box (Protection Degree) IP 68 with 3 Bypass Diodes Cables (Length) 1,400 mm x 2 EA	Weight	22 kg
Frame (Material)  Junction Box (Protection Degree)  Cables (Length)  Anodized Aluminium  IP 68 with 3 Bypass Diodes  1,400 mm x 2 EA	Glass (Material)	Tempered Glass with AR coating
Junction Box (Protection Degree)  IP 68 with 3 Bypass Diodes  Cables (Length)  1,400 mm x 2 EA	Backsheet (Color)	Transparent
Cables (Length) 1,400 mm x 2 EA	Frame (Material)	Anodized Aluminium
	Junction Box (Protection Degree)	IP 68 with 3 Bypass Diodes
Connector (Type / Maker) MC4 / Stäubli	Cables (Length)	1,400 mm x 2 EA
	Connector (Type / Maker)	MC4 / Stäubli

# **Electrical Properties**

Model		LG445N2T-E6		
		STC	BiFi100**	BiFi200**
Maximum Power (Pmax)	[W]	445	475	505
MPP Voltage (Vmpp)	[V]	42.0	42.0	42.0
MPP Current (Impp)	[A]	10.61	11.31	12.02
Open Circuit Voltage (Voc, ± 5%)	[V]	50.0	50.0	50.0
Short Circuit Current (Isc, ± 5%)	[A]	11.11	11.89	12.67
Module Efficiency	[%]	20.0	21.4	22.8
Pmax Bifaciality Coefficient	[%]	70 ± 5		
Power Tolerance	[%]		0 ~ +3	

- \* STC (Standard Test Condition) :
- : Irradiance 1000W/m², Cell temperature 25°C, AM 1.5 , Measure Tolerance :  $\pm\,3~\%$
- \*\* The electrical properties of BiFi100 and BiFi200 measure under the front side irradiance  $1000W/m^2 + \left(100W/m^2 \, \text{or} \, \, 200W/m^2 \, \right) *$  BiFi .Use  $100W/m^2$  for BiFi100 and  $200W/m^2$  for

#### Temperature Characteristics

NMOT*	[°C]	42 ± 3
Pmax	[%/°C]	-0.33
Voc	[%/°C]	-0.26
Isc	[%/°C]	0.04

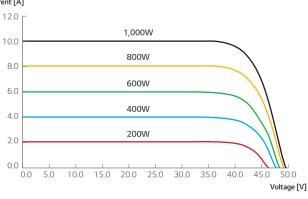
- \* NMOT (Nominal Module Operating Temperature)
- : Irradiance 800W/m², Ambient temperature 20°C, Wind speed 1m/s, Spectrum AM 1.5

#### **Electrical Properties (NMOT)**

Model		LG445N2T-E6		
		NMOT	BiFi100**	BiFi200**
Maximum Power (Pmax)	[W]	336	360	383
MPP Voltage (Vmpp)	[V]	39.5	39.5	39.5
MPP Current (Impp)	[A]	8.50	9.09	9.69
Open Circuit Voltage (Voc)	[V]	47.2	47.2	47.2
Short Circuit Current (Isc)	[A]	8.95	9.57	10.20

# I-V Curves

# Current [A]



## Certifications and Warranty

Certifications	IEC 61215-1 / -1-1 / 2:2016, IEC 61730-1 / 2:2016 UL 61730-1:2017, UL 61730-2:2017		
	ISO 9001, ISO 14001		
	ISO 45001		
Salt Mist Corrosion Test	IEC 61701 : 2011 Severity 6		
Ammonia Corrosion Test	IEC 62716 : 2013		
Module Fire Performance	Type 1 (UL 61730)		
Fire Rating	Class C (UL 790)		
Solar Module Product Warranty	25 Years		
Solar Module Output Warranty	Linear Warranty*		

<sup>\*</sup> Initial 107%, 1st year 105.4%, After 1st year: -0.35%/year, 96.4% for 25 years (Based on BiFi100)

#### Operating Conditions

Operating Temperature	[°C]	-40 ~ +85
Maximum System Voltage	[V]	1,000(IEC) / 1,500(UL)
Maximum Series Fuse Rating	[A]	20
Mechanical Test Load* (Front)	[Pa]	5,400
Mechanical Test Load* (Rear)	[Pa]	3,000

<sup>\*</sup> Based on IEC 61215-2: 2016 (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]	500
Packaging Box Dimensions (L x W x H)	[mm]	2,172 x 1,120 x 1,221
Packaging Box Gross Weight	[kg]	588

# Dimensions (mm/inch)

