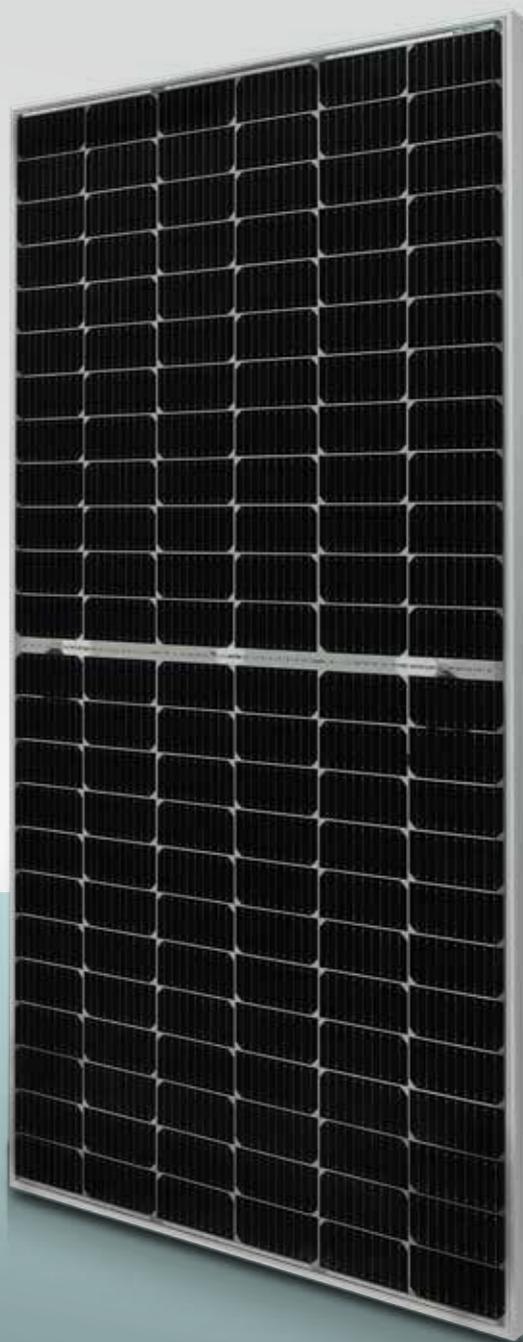


# The next evolution leap



**25** YEARS **LG**  
Product and Performance Warranty

BiFacial module  
Transparent backsheet

## LG NeON<sup>®</sup> H BiFacial – Unleash the power!

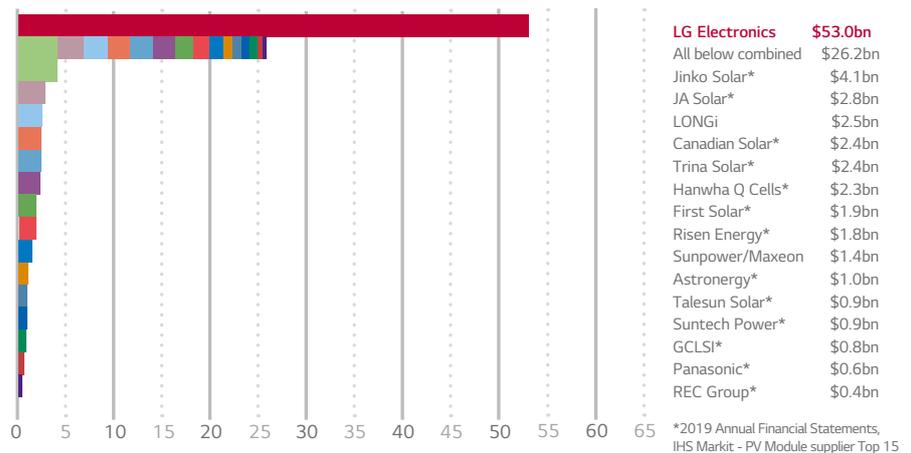
The LG NeON<sup>®</sup> H BiFacial is based on the well-known high-performance module LG NeON<sup>®</sup> H. Already on the front side, the LG 440N2T-E6 module reaches with its highly efficient, mono-crystalline cells a basic power of 440 Watt peak (Wp). Through the use of bi-facial cells and a transparent back sheet, the power of the LG NeON<sup>®</sup> H BiFacial 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<sup>®</sup> H BiFacial module increases under optimal conditions.

### Local guarantor, global security

LG Solar is part of LG Electronics, a global and financially strong company, with over 60 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.

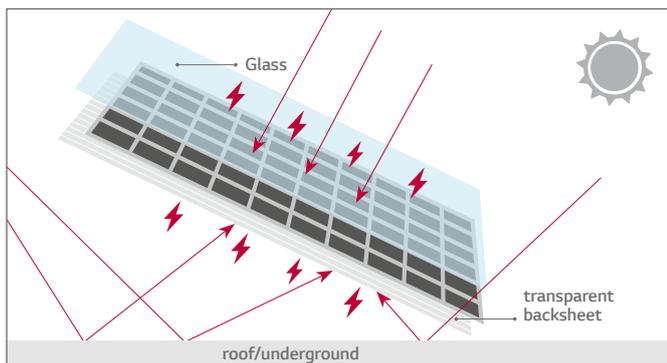
The Warrantor’s 2019 Global Sales in Billions of US Dollars



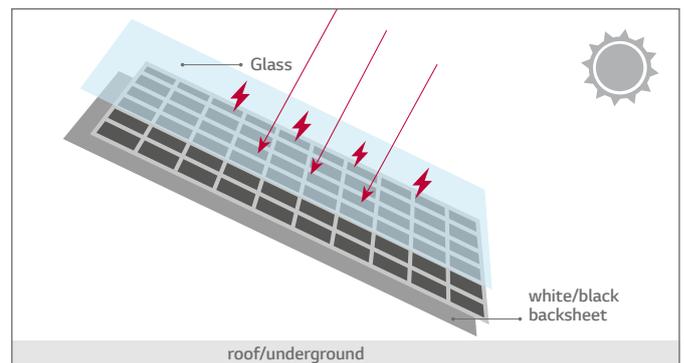
### LG NeON<sup>®</sup> H BiFacial – bonus!

Traditional, single-sided active cells and modules can absorb incident light only on the front side and convert it to electricity. The LG NeON<sup>®</sup> H 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 under optimal conditions by up to 30 % compared to a monofacial module of equal nominal power.

#### Bifacial module



#### Monofacial module



Higher yield with 25-years of LG product and performance guarantee

### Extended Product Warranty

# 25 yrs

Linear Warranty: 25yrs\*



\* Under BiFi 100 condition, 1st year 105.4%, after 1st year : 0.35 annual degradation, 96.4% for 25 years  
 \*\* Based on STC max power

# LG NeON<sup>®</sup> H BiFacial

440W | 435W | 430W

## 144 cell

LG NeON<sup>®</sup> H 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 busbars with thin wires to enhance power output and reliability. It is possible to produce a surplus of output energy with LG NeON<sup>®</sup> H BiFacial compared with normal monofacial modules.



- \*  
- CELLO technology
- transparent backsheet

## Key Features



### Enhanced Performance Warranty

LG NeON<sup>®</sup> H BiFacial has an enhanced performance warranty. After 25 years, LG NeON<sup>®</sup> H BiFacial is guaranteed at least 96.4% of initial performance.



### Better Performance on a Sunny Day

LG NeON<sup>®</sup> H BiFacial now performs better than many other modules on sunny days thanks to its improved temperature coefficient.



### High Power Output

LG NeON<sup>®</sup> H BiFacial has been designed using LG's CELLO technology. The cell efficiency on the rear side is only slightly lower than on the front side.



### Bifacial Energy Yield

It is possible to produce 30% more energy than with conventional modules under optimal conditions.



### More Power also on a Cloudy Day

LG NeON<sup>®</sup> H BiFacial gives good performance even on a cloudy day due to its very good weak sunlight performance.



### 25 Years Product Warranty

In addition to the extended performance guarantee LG also offers a strong product guarantee for 25 years.

## 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. The LG 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.  
\* The darkness of the panel may vary depending on the specific manufacturing procedure, and does not affect the quality and performance of the panel.

### Mechanical Properties

|                         |                                  |
|-------------------------|----------------------------------|
| Cells                   | 144 (6 x 24)                     |
| Cell Type               | Monocrystalline / N-type         |
| # of Busbar             | 9 (Multi Wire Busbar)            |
| Dimensions (L x W x H)  | 2,130 x 1,042 x 40 mm            |
| Front Load <sup>1</sup> | 5,400 Pa                         |
| Rear Load <sup>1</sup>  | 3,000 Pa                         |
| Weight                  | 22 kg                            |
| Connector Type          | MC4 / Stäubli                    |
| Junction Box            | IP68 with 3 Bypass Diodes        |
| Cables                  | 2 x 1.400 mm                     |
| Glass                   | High Transmission Tempered Glass |
| Frame                   | Anodized Aluminium               |

<sup>1</sup> Mechanical Test Loads based on IEC61215-2 : 2016  
(Test Load = Design Load x Safety Factor (1.5))

### Certifications and Warranty

|                         |   |
|-------------------------|---|
| Certifications          | IEC 61215-1/-1-1/2 : 2016,<br>IEC 61730-1/2 : 2016      |
|                         | IEC 61701:2011 Severity 6<br>(Salt mist corrosion test) |
|                         | IEC 62716:2013<br>(Ammonia corrosion test)              |
|                         | ISO 9001, ISO 14001, OHSAS 18001                        |
| Fire Resistance Class   | Class C, Fire Class 1 (Italy)                           |
| Product Warranty        | 25 Years  |
| Output Warranty of Pmax | Linear Warranty <sup>2</sup>                            |

<sup>1</sup> Under BiFi 100 condition, 1st year 105.4%, after 1st year : 0.35 annual degradation, 96.4% for 25 years  
<sup>2</sup> Based on STC max power

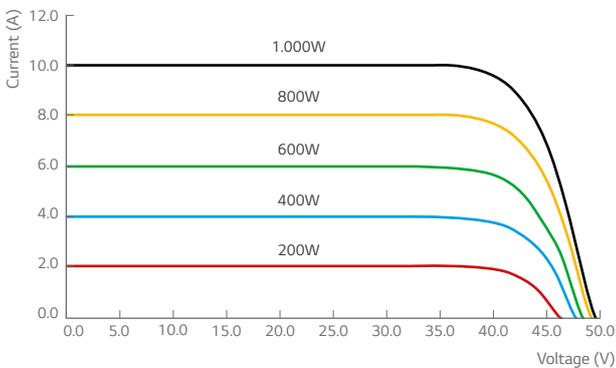
### Temperature Characteristics

|                   |        |        |
|-------------------|--------|--------|
| NMOT <sup>4</sup> | [ °C ] | 42 ± 3 |
| Pmax              | [%/°C] | -0.33  |
| Voc               | [%/°C] | -0.26  |
| Isc               | [%/°C] | 0.04   |

### 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                   |

### Characteristic Curves



### Electrical Properties (STC<sup>3</sup>)

| Model                             | LG440N2T-E6 |           |         | LG435N2T-E6 |         |         | LG430N2T-E6 |         |         |       |
|-----------------------------------|-------------|-----------|---------|-------------|---------|---------|-------------|---------|---------|-------|
|                                   | STC         | BiFi100   | BiFi200 | STC         | BiFi100 | BiFi200 | STC         | BiFi100 | BiFi200 |       |
| Maximum Power (Pmax)              | [W]         | 440       | 470     | 500         | 435     | 465     | 495         | 430     | 460     | 490   |
| MPP Voltage (Vmpp)                | [V]         | 41,7      | 41,7    | 41,7        | 41,4    | 41,4    | 41,4        | 41,1    | 41,1    | 41,1  |
| MPP Current (Impp)                | [A]         | 10,56     | 11,27   | 11,99       | 10,51   | 11,24   | 11,96       | 10,47   | 11,19   | 11,93 |
| Open Circuit Voltage (Voc, ± 5%)  | [V]         | 49,7      | 49,7    | 49,7        | 49,4    | 49,4    | 49,4        | 49,1    | 49,1    | 49,1  |
| Short Circuit Current (Isc, ± 5%) | [A]         | 11,06     | 11,83   | 12,61       | 11,00   | 11,77   | 12,54       | 10,94   | 11,71   | 12,47 |
| Module Efficiency                 | [%]         | 19,8      | 21,2    | 22,5        | 19,6    | 21,0    | 22,3        | 19,4    | 20,7    | 22,1  |
| Operating Temperature             | [°C]        | -40 ~ +85 |         |             |         |         |             |         |         |       |
| Maximum System Voltage            | [V]         | 1.000     |         |             |         |         |             |         |         |       |
| Maximum Series Fuse Rating        | [A]         | 20        |         |             |         |         |             |         |         |       |
| Pmax Bifaciality Coefficient      | [%]         | 70 ± 5    |         |             |         |         |             |         |         |       |
| Power Tolerance                   | [%]         | 0 ~ +3    |         |             |         |         |             |         |         |       |

<sup>3</sup>STC (Standard Test Condition): Irradiance 1,000 W/m<sup>2</sup>, Module Temperature 25 °C, AM 1.5., Measure Tolerance: ± 3 %.

<sup>4</sup>The electrical properties of BiFi100 and BiFi200 measure under the front side irradiance 1000 W/m<sup>2</sup> + (100 W/m<sup>2</sup> or 200 W/m<sup>2</sup>) \* BiFi Use 100 W/m<sup>2</sup> for BiFi100 and 200 W/m<sup>2</sup> for BiFi200

### Electrical Properties (NMOT<sup>4</sup>)

| Model                       | LG440N2T-E6 |         |         | LG435N2T-E6 |         |         | LG430N2T-E6 |         |         |       |
|-----------------------------|-------------|---------|---------|-------------|---------|---------|-------------|---------|---------|-------|
|                             | NMOT        | BiFi100 | BiFi200 | NMOT        | BiFi100 | BiFi200 | NMOT        | BiFi100 | BiFi200 |       |
| Maximum Power (Pmax)        | [W]         | 332     | 335     | 379         | 328     | 351     | 374         | 325     | 347     | 370   |
| MPP Voltage (Vmpp)          | [V]         | 39,3    | 39,3    | 39,3        | 39,0    | 39,0    | 39,0        | 38,7    | 38,7    | 38,7  |
| MPP Current (Impp)          | [A]         | 8,46    | 9,05    | 9,64        | 8,42    | 9,01    | 9,60        | 8,39    | 8,97    | 9,56  |
| Open Circuit Voltage (Voc)  | [V]         | 46,9    | 46,9    | 46,9        | 46,6    | 46,6    | 46,6        | 46,3    | 46,3    | 46,3  |
| Short Circuit Current (Isc) | [A]         | 8,91    | 9,53    | 10,16       | 8,86    | 9,48    | 10,10       | 8,81    | 9,43    | 10,05 |

<sup>4</sup> NMOT (Nominal Module Operating Temperature): Irradiance 800 W/m<sup>2</sup>, ambient temperature 20 °C, wind speed 1 m/s

### Dimensions (mm)

