



MonoX[®] NeON

LG305N1C-B3

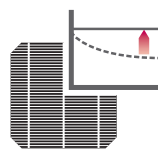
60 cell

Introducing MonoX[®] NeON module series, which uses highly efficient n-type materials, an elaborate process control adopting a semiconductor processing solution and a double-sided structure. Our R&D concentrates on developing a product that is not only efficient, but strives to increase practical value for customers.



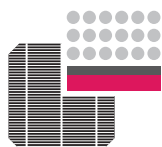
N-Type Material

MonoX[®] NeON uses n-type cells, boasting higher mobility of electric charge, resulting in higher generation efficiency.



Near Zero LID (Light Induced Degradation)

The n-type cells used in MonoX[®] NeON have almost no boron, which may cause the initial efficiency to drop, leading to less LID.



Nano Level Control

MonoX[®] NeON uses the Nano-level process control predominant in semiconductor processing process, which ensures less electric loss from internal defects.



Double-Sided Cell Structure

The rear of the cell used in MonoX[®] NeON is designed to contribute to generation; the light beam reflected from the rear of the module is reabsorbed to generate a great amount of additional power.



Light Weight



Convenient Installation



EL Test



Current Sorting



Linear Warranty



Positive Power Tolerance


About LG Electronics

LG Electronics is a multinational corporation committed to expanding its capacity with solar energy business as its future growth engine. Our solar energy source research program was launched in 1985, backed by LG Group's rich experience in semi-conductors, LCD, chemistry and electronic materials industry. We successfully released the first MonoX[®] series to the market in 2010 which exported to 32 countries in 2 years. In 2013, MonoX[®] NeON won "Intersolar Award", which proved its leading innovation in the industry.

Mechanical Properties

| | |
|------------------------|--|
| Cells | 6 x 10 |
| Cell vendor | LG |
| Cell type | Monocrystalline |
| Cell dimensions | 156 x 156 mm / 6 x 6 in |
| # of busbar | 3 |
| Dimensions (L x W x H) | 1640 x 1000 x 35 mm 64.57 x 39.37 x 1.38 in |
| Static snow load | 5400 Pa / 113 psf |
| Static wind load | 2400 Pa / 50 psf |
| Weight | 16.8 ± 0.5 kg / 36.96 ± 1.1 lb |
| Connector type | MC4 connector IP 67 |
| Junction box | IP 67 with 3 bypass diodes |
| Length of cables | 2 x 1000 mm / 2 x 39.37 in |
| Glass | High transmission tempered glass |
| Frame | Anodized aluminum |

Certifications and Warranty

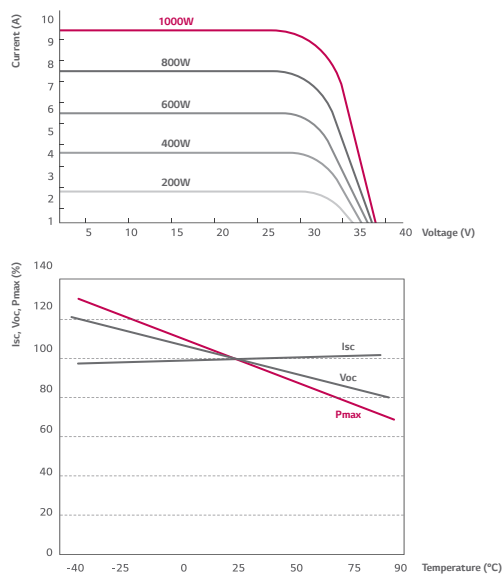
| | |
|---|--|
| Certifications | IEC 61215, IEC 61730-1/-2, UL 1703, ISO 9001, IEC 61701, IEC 62716 |
| Module fire performance (UL1703) | Type 2 |
| Product warranty | 10 years |
| Output warranty of P _{max} (measurement Tolerance ± 3%) | Linear warranty*  |

* 1) 1st year: 98%, 2) After 2nd year: 0.7% annual degradation, 3) 81.2% for 25 years

Temperature Coefficients

| | |
|-----------------|------------|
| NOCT | 45 ± 2 °C |
| P _{mp} | -0.41 %/°C |
| V _{oc} | -0.29 %/°C |
| I _{sc} | 0.04 %/°C |

Characteristic Curves



Electrical Properties (STC *)

| | |
|--|----------------------|
| | 305 W |
| MPP voltage (V _{mp}) | 32.1 |
| MPP current (I _{mp}) | 9.52 |
| Open circuit voltage (V _{oc}) | 40.0 |
| Short circuit current (I _{sc}) | 10.1 |
| Module efficiency (%) | 18.6 |
| Operating temperature (°C) | -40 ~ +90 |
| Maximum system voltage (V) | 1000 (IEC), 600 (UL) |
| Maximum series fuse rating | 20 |
| Power tolerance (%) | 0 ~ +3 |

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

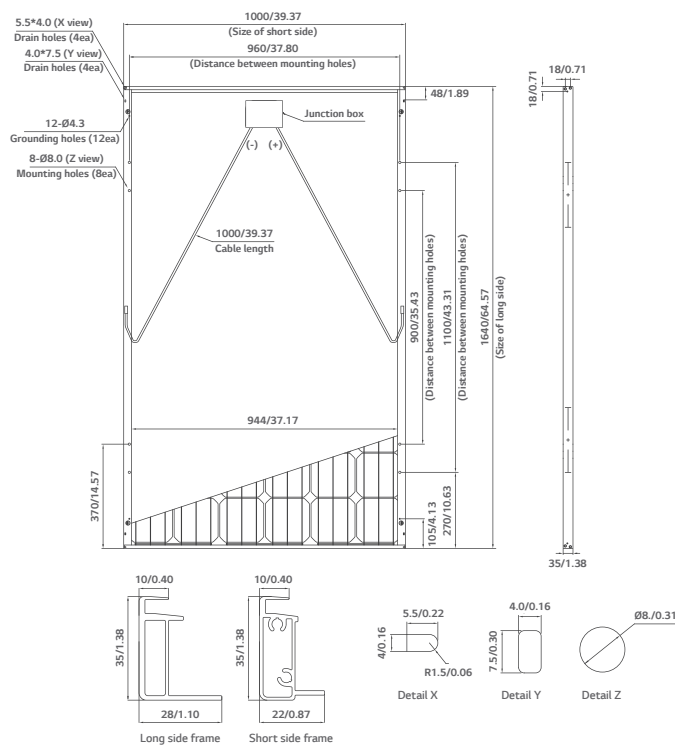
* The nameplate power output is measured and determined by LG Electronics at its sole and absolute discretion.

Electrical Properties (NOCT*)

| | |
|---|--------------|
| | 305 W |
| Maximum power (P _{mp}) | 223 |
| MPP voltage (V _{mp}) | 29.4 |
| MPP current (I _{mp}) | 7.59 |
| Open circuit voltage (V _{oc}) | 37.0 |
| Short circuit current (I _{sc}) | 8.14 |
| Efficiency reduction (from 1000 W/m ² to 200 W/m ²) | < 2% |

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

Dimensions (mm/in)



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

