Inspections Division
Date: 09/21/15

LG
Life's Good

Innovation
for a Better Life

inter solar award 2013 WINNER

PLUS X AWARD achieved for High Quality Ecology

Mono X™ NeON

LG305N1C-B3

60 cell

Introducing Mono X™ 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.

APPROVED PRODUCT
MCS
KM 564573 BS EN 61215
Photovoltaic Modules

N-Type Material

Mono X™ 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 Mono X™ NeON have almost no boron, which may cause the initial efficiency to drop, leading to less LID.

Nano Level Control

Mono X™ 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 Mono X™ 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

16.8kg Light Weight | Convenient Installation | EL Test | 2% Current Sorting | 25yrs Linear Warranty | +3% 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 a 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 Mono X™ series to the market in 2010 which exported to 32 countries in 2 years. In 2013, Mono X™ NeON won "Intersolar Award", which proved its leading innovation in the industry.

MonoX™ NeON

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Mechanical Properties

Cells	6 x 10
Cell vendor	LG
Cell type	Monocrystalline
Cell dimensions	156.5 x 156.5 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
Product warranty	10 years
Output warranty of Pmax (measurement Tolerance ± 3%)	Linear warranty* NEW

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

Temperature Coefficients

NOCT	45 ± 2 °C
Pmpp	-0.41 %/°C
Voc	-0.29 %/°C
Isc	0.04 %/°C

Characteristic Curves

Electrical Properties (STC *)

	305 W
MPP voltage (Vmpp)	32.1
MPP current (Impp)	9.52
Open circuit voltage (Voc)	40.0
Short circuit current (Isc)	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 (Pmpp)	223
MPP voltage (Vmpp)	29.4
MPP current (Impp)	7.59
Open circuit voltage (Voc)	37.0
Short circuit current (Isc)	8.14
Efficiency reduction (from 1000 W/m2 to 200 W/m2)	< 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.

LG Life's Good

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