

MonoX™ NeON

LG300N1C-A3 / LG295N1C-A3 / LG290N1C-A3 / LG285N1C-A3



60 cell

MonoX™ NeON is a high-yield module developed by LG Electronics. The company tries to concentrate its R&D capacities on developing a product which can practically increase the benefits (or values) to customers, beyond just the efficiency. This allowed the company to successfully introduce a high-yield module, MonoX™ NeON, which uses highly efficient n-type materials, elaborate process control adopting a semiconductor processing solution, and double-sided structure.



KM 564573 1215
Photovoltaic Modules

NEW



N-type Material

MonoX™ NeON uses n-type cells, which boasts higher mobility of electric charge, resulting in higher generation efficiency.

NEW



Near Zero LID (Light Induced Degradation)

The n-type cells used in Mono™ NeON have almost no boron which may cause the initial efficiency to drop, which leads to less LID.

NEW



Nano Level Control

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

NEW



Double Sided Cell Structure

The rear of the cell used in MonoX™ NeON will 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



Current Sorting



Linear Warranty



Positive Power Tolerance

About LG Electronics

LG Electronics is a global big player who has been committed to expanding its capacity, based on solar energy business as its future growth engine. We embarked on a solar energy source research program in 1985, supported by LG Group's rich experience in semi-conductor, LCD, chemistry, and materials industry. We successfully released the first MonoX™ series on the market, in 2010, which were exported to 32 countries in 2 years, thereafter. In 2013, MonoX™ NeON won "Intersolar Award", which proved it's the leader of innovation in the industry.

MonoTM X NeON


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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

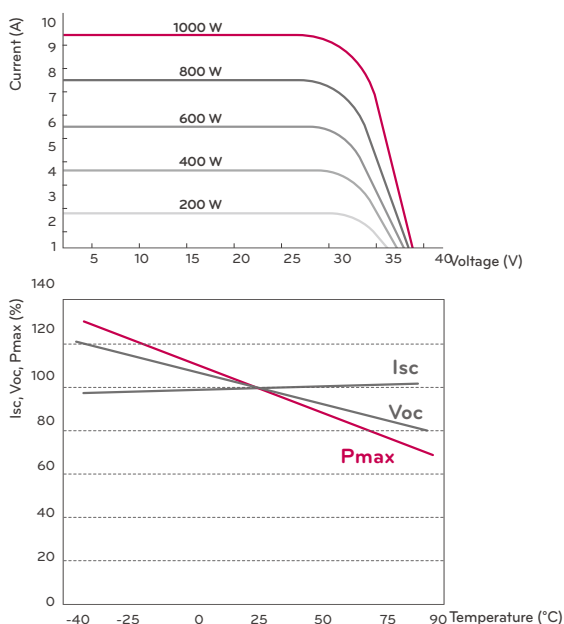
Certifications (In Progress)	IEC 61215, IEC 61730-1/-2, UL 1703, ISO 9001, IEC 61701, IEC 62716
Product warranty	10 years
Output warranty of P _{max} (measurement Tolerance ± 3%)	Linear warranty* 

* 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
P _{mp}	-0.41 %/°C
V _{oc}	-0.29 %/°C
I _{sc}	0.04 %/°C

Characteristic Curves



Electrical Properties (STC*)

	300 W	295 W	290 W	285 W
MPP voltage (V _{mp})	32.0	31.8	31.8	31.6
MPP current (I _{mp})	9.40	9.28	9.15	9.03
Open circuit voltage (V _{oc})	39.8	39.7	39.6	39.5
Short circuit current (I _{sc})	9.98	9.85	9.70	9.59
Module efficiency (%)	18.3	18.0	17.7	17.4
Operating temperature (°C)	-40 ~ +90			
Maximum system voltage (V)	1000 (IEC), 600 (UL)			
Maximum series fuse rating (A)	20			
Power tolerance (%)	0 ~ +3			

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

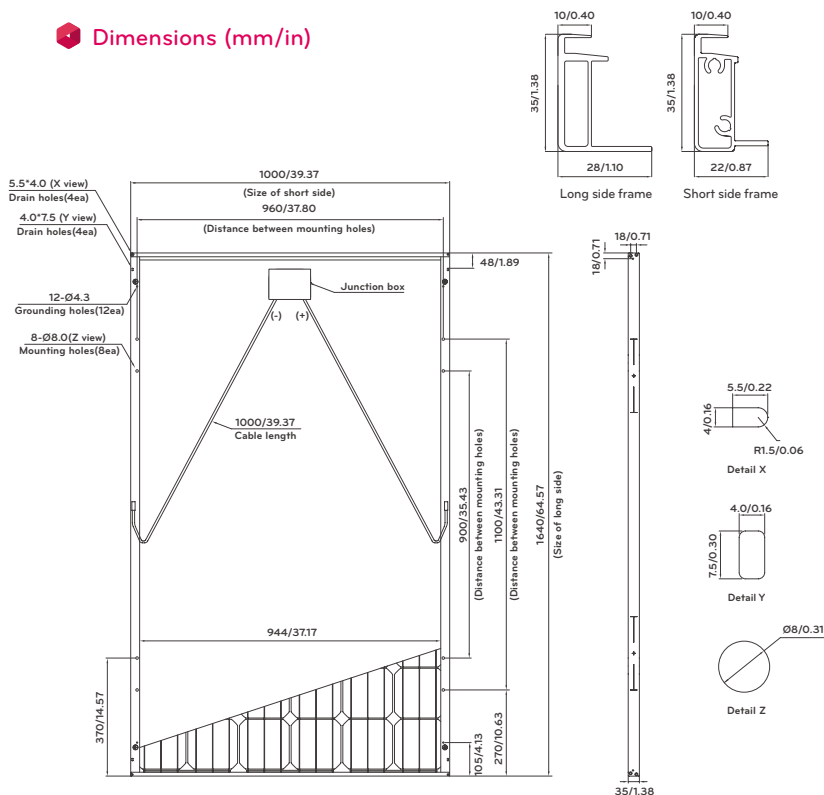
* The nameplate power output is measured and determined by LG Electronics at its sole and absolute discretion.

Electrical Properties (NOCT*)

	300 W	295 W	290 W	285 W
Maximum power (P _{mp})	220	215	212	208
MPP voltage (V _{mp})	29.3	29.1	29.0	28.9
MPP current (I _{mp})	7.50	7.40	7.30	7.20
Open circuit voltage (V _{oc})	36.9	36.8	36.7	36.6
Short circuit current (I _{sc})	8.05	7.94	7.82	7.73
Efficiency reduction (from 1000 W/m ² to 200 W/m ²)	< 3.5%			

* 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.



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