

With LG, it's all possible.











LG290N1C-A3

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 Mono™ 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.













About LG Electronics



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	$16.8 \pm 0.5 \text{ kg} / 36.96 \pm 1.1 \text{ lb}$
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

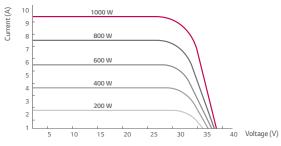
Certifications (In Progress)	IEC 61215, IEC 61730-1/-2, UL 1703,
	ISO 9001, IEC 61701, IEC 62716
Product warranty	10 years
Output warranty of Pmax	Linear warranty*

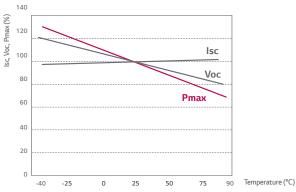
 $^{^{\}star}$ 1) 1st year. 98%, 2) After 2nd year. 0.7%p annual degradation, 3) 81.2% for 25 years

TEMPERATURE COEFFICIENTS

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

CHARACTERISTIC CURVES





ELECTRICAL PROPERTIES (STC*)

	290 W	
MPP voltage (Vmpp)	31.8	
MPP current (Impp)	9.15	
Open circuit voltage (Voc)	39.6	
Short circuit current (Isc)	9.70	
Module efficiency (%)	17.7	
Operating temperature (°C)	-40 ~ +90	
Maximum system voltage (V)	1000 (IEC), 600 (UL)	
Maximum series fuse rating (A)	20	
Power tolerance (%)	0 ~ +3	

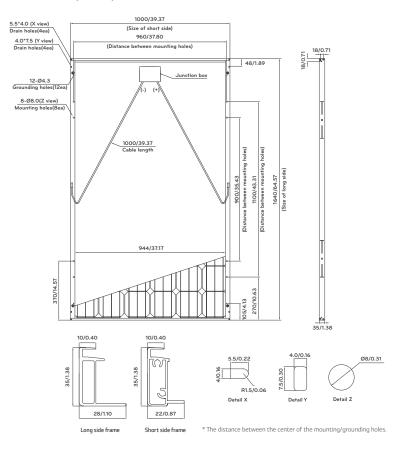
^{*} STC (Standard Test Condition): Irradiance 1000 W/m², module temperature 25 °C, AM 1.5

ELECTRICAL PROPERTIES (NOCT*)

	290 W	
Maximum power (Pmpp)	212	
MPP voltage (Vmpp)	29.0	
MPP current (Impp)	7.30	
Open circuit voltage (Voc)	36.7	
Short circuit current (Isc)	7.82	
Efficiency reduction (from 1000 W/m² to 200 W/m²)	< 3.5%	

^{*} NOCT (Nominal Operating Cell Temperature): Irradiance 800 W/ m^2 , ambient temperature 20 °C, wind speed 1 m/s

DIMENSIONS (MM/IN)





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