

# With LG, it's all possible.











LG300N1C-B3 LG295N1C-B3 LG290N1C-B3

# 60 cell

Introducing Mono X<sup>™</sup> 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**

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



## **Nano Level Control**

Mono  $X^{\text{\tiny{TM}}}$  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  $X^{\text{\tiny TM}}$  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	156.5 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**

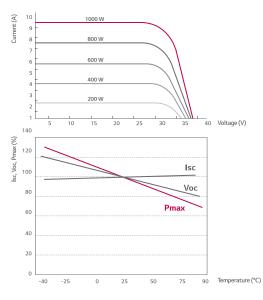
Certifications (In Progress)	IEC 61215, IEC 61730-1/-2, UL 1703,
	ISO 9001, IEC 61701, IEC 62716
Module Fire Performance (UL1703)	Type 2
product warranty	10 years
Output warranty of Pmax (measurement Tolerance ± 3%)	Linear warranty*

<sup>\* 1) 1</sup>st 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\*)**

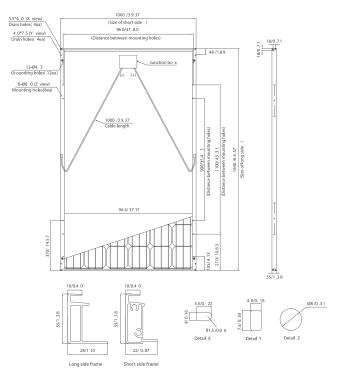
	305 W	300 W	295 W	290 W
MPP voltage (Vmpp)	32.1	32.0	31.8	31.8
MPP current (Impp)	9.52	9.40	9.28	9.15
Open circuit voltage (Voc)	40.0	39.8	39.7	39.6
Short circuit current (Isc)	10.1	9.98	9.85	9.70
Module efficiency (%)	18.6	18.3	18.0	17.7
Operating temperature (°C)	-40 ~ +90			
Maximum system voltage (V)	1000 (IEC), 600 (UL)			
Maximum series fuse rating	20			
Power tolerance (%)	0~+3			

#### **Electrical Properties (NOCT\*)**

	305 W	300 W	295 W	290 W
Maximum power (Pmpp)	223	220	215	212
MPP voltage (Vmpp)	29.4	29.3	29.1	29.0
MPP current (Impp)	7.59	7.50	7.40	7.30
Open circuit voltage (Voc)	37.0	36.9	36.8	36.7
Short circuit current (Isc)	8.14	8.05	7.94	7.82
Efficiency reduction (from 1000 W/m2 to 200 W/m2)	< 2%			

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

#### Dimensions (mm/in)



 $<sup>\</sup>ensuremath{^{\star}}$  The distance between the center of the mounting/grounding holes.



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<sup>\*</sup> 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.