

# CLEAR THE STAGE FOR THE ALL-ROUNDER

LG MonoX<sup>®</sup> 2

NEW 2017

UP TO 300 WATTS

STRONG GUARANTEES

EXTREMELY DURABLE



## LG MonoX<sup>®</sup> PLUS – DURABLE AND HIGHLY EFFICIENT

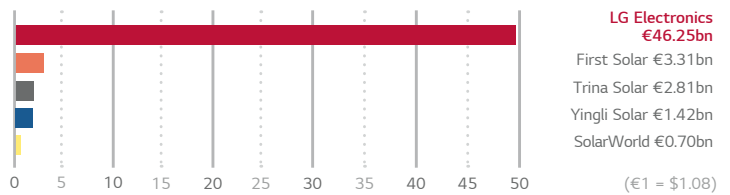
The new solar module of the MonoX<sup>®</sup> series is the next step of well-known LG quality features: long lifespan, strong guarantees, as well as easy handling combined with first-class energy performance.

### LOCAL GUARANTOR, GLOBAL SECURITY

LG Solar is part of LG Electronics, a global and financially strong company, with over 50 years of experience.

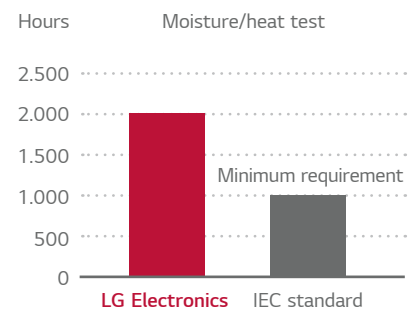
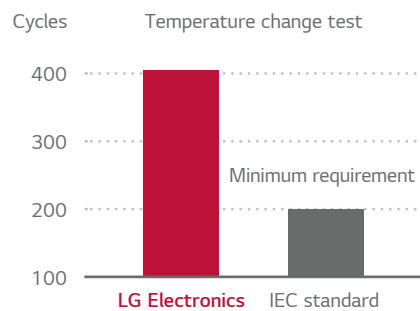
**Good to know:** LG Electronics is the warrantor for your solar modules.

The warrantor's 2015 sales in billions of euros



### EXCELLENT QUALITY, INDEPENDENTLY TESTED

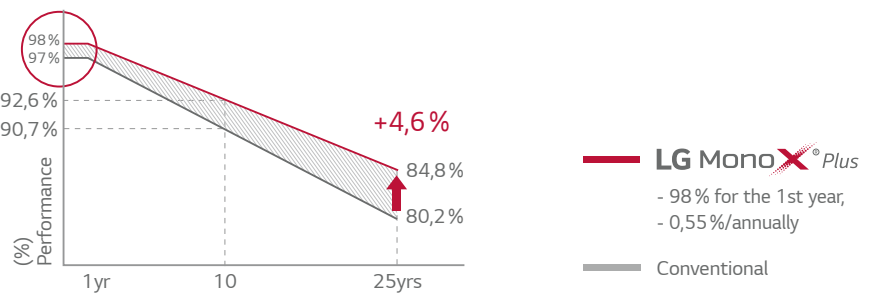
You can rely on LG. We test our products with double the intensity specified in the IEC standard. This quality is valued by installers across Europe, which is why they have awarded our LG solar modules the Top Brand PV stamp of quality for the highest recommendation rates for the third time in a row. Moreover, they have already received the prestigious Intersolar Award as well as the Plus X Award – one of the biggest innovation awards for technology, sport and lifestyle.



### LILY TECHNOLOGY, AN LG ADVANTAGE

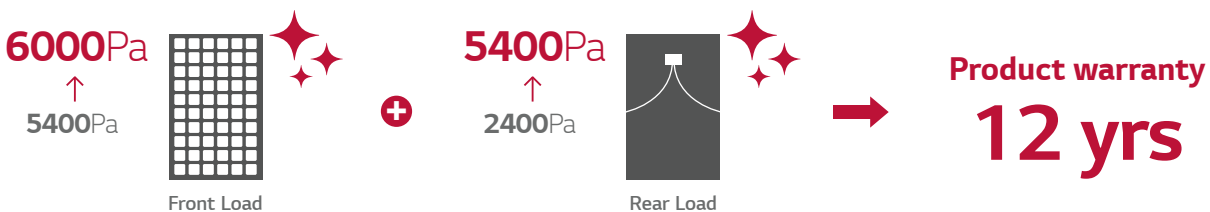
#### Annual Degradation

The LG Mono X<sup>®</sup> Plus prevents declines in initial performance with LiLY technology, increasing the reliability of long-term performance.



### FRAME & MODULE DESIGN

With reinforced frame design, LG MonoX<sup>®</sup> Plus can endure a front load up to 6000 Pa (represents snow height of normal snow of more than 1,8 meters) and a rear load up to 5400 Pa (represents wind speed of up to 93 m/s, compare max. wind speed of Hurricane Katrina 2005 of max. 75 m/s).



# LG MonoX<sup>®</sup> Plus

**LG300S1C-A5 | LG295S1C-A5  
LG290S1C-A5**

## 60 Cells

LG MonoX<sup>®</sup> Plus is LG Electronics' high-quality monocrystalline module. The quality is the result of our strong commitment to developing a module to improve benefits for customers. Features of MonoX<sup>®</sup> Plus include durability, convenient installation, and aesthetic exterior.

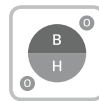


## KEY FEATURES



### Enhanced Performance Warranty

LG Mono X<sup>®</sup> Plus has an enhanced performance warranty. The initial degradation of cells has been improved from -3% to -2%, and the annual rate of degradation has fallen from -0.6%/yr to -0.55%/yr.



### Reduced LID

LG Mono X<sup>®</sup> Plus has reduced the initial degradation of solar cells by applying LG's new LiLY (LID-improvement for Lifetime Yield) Technology, which controls the reaction of Boron and Oxygen, the main cause of LID (Light Induced Degradation).



### Improved Product Warranty

As well as the enhanced performance warranty, LG has extended the product warranty of the LG Mono X<sup>®</sup> Plus for an additional 2 years.



### Light and Convenient

LG Mono X<sup>®</sup> Plus has been carefully designed. It weighs just 18kg (39.68 lb) and has better grips that allow for quick installation.

## About LG Electronics

LG Electronics is a global big player, committed to expanding its operations with the solar market. The company first embarked on a solar energy source research program in 1985, supported by LG Group's vast experience in the semi-conductor, LCD, chemistry and materials industries. In 2010, LG Solar successfully released its first MonoX<sup>®</sup> series to the market, which is now available in 32 countries. The NeON<sup>®</sup> (previous. MonoX<sup>®</sup> NeON), NeON<sup>®</sup>2, NeON<sup>®</sup>2 BiFacial won the "Intersolar AWARD" in 2013, 2015 and 2016, which demonstrates LG Solar's lead, innovation and commitment to the industry.

<sup>1</sup>In progress

## Mechanical Properties

Cells	6 x 10
Cell Vendor	LG
Cell Type	Monocrystalline / P-type
Cell Dimensions	161.7 x 161.7 mm
# of Busbar	4
Dimensions (L x W x H)	1.686 x 1.016 x 40 mm
Static Load	6.000Pa (snow load)
	5.400Pa (wind load)
Weight	18.0 kg
Connector Type	MC4, JM601A
Junction Box	IP68 with 3 Bypass Diodes
Length of Cables	2 x 1.000 mm
Glass	High Transmission Tempered Glass
Frame	Anodized Aluminium

## Certifications and Warranty

Certifications	IEC 61215, IEC 61730-1/-2
	IEC TS 62804-1 (PID)
	IEC 61701 (Salt mist corrosion test)
	IEC 62716 (Ammonia corrosion test)
	ISO 9001
Module Fire Performance	Class C, Fire Class 1 (Italy) <sup>2</sup>
Product Warranty	12 Years
Output Warranty of Pmax (Measurement Tolerance ±3%)	Linear Warranty <sup>3</sup>

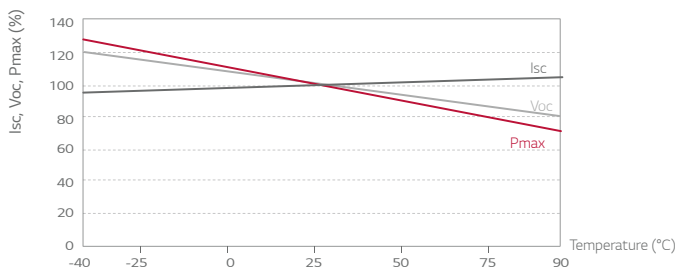
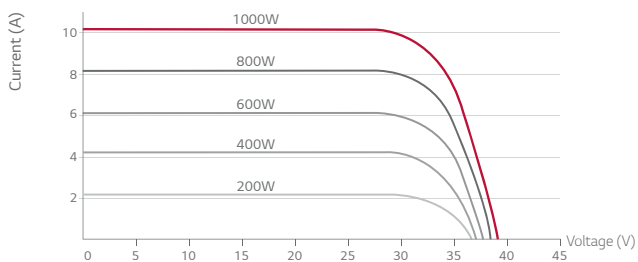
<sup>2</sup> In progress

<sup>3</sup> 1) 1st year : 98% 2) after 2nd year : 0.55%p annual degradation 3) 84.8% for 25 years

## Temperature Characteristics

NOCT	[ °C ]	45 ± 3
Pmax	[%/°C]	-0.41
Voc	[%/°C]	-0.30
Isc	[%/°C]	0.03

## Characteristic Curves



## Electrical Properties (STC<sup>4</sup>)

Model		LG300S1C-A5	LG295S1C-A5	LG290S1C-A5
Maximum Power (Pmax)	[W]	300	295	290
MPP Voltage (Vmpp)	[V]	31.7	31.3	31.0
MPP Current (Impp)	[A]	9.47	9.43	9.36
Open Circuit Voltage (Voc)	[V]	38.9	38.6	38.3
Short Circuit Current (Isc)	[A]	10.07	10.02	9.97
Module Efficiency	[%]	17.5	17.2	16.9
Operating Temperature	[°C]	-40 ~ +90		
Maximum System Voltage	[V]	1.000		
Maximum Series Fuse Rating	[A]	20		
Power Tolerance	[%]	0 ~ +3		

<sup>4</sup> 1) STC (Standard Test Condition): Irradiance 1000 W/m<sup>2</sup>, module temperature 25 °C, AM 1.5.

2) The typical change in module efficiency at 200 W/m<sup>2</sup> in relation to 1000 W/m<sup>2</sup> is -4.5%.

3) Application Class: A, Safety Class: II

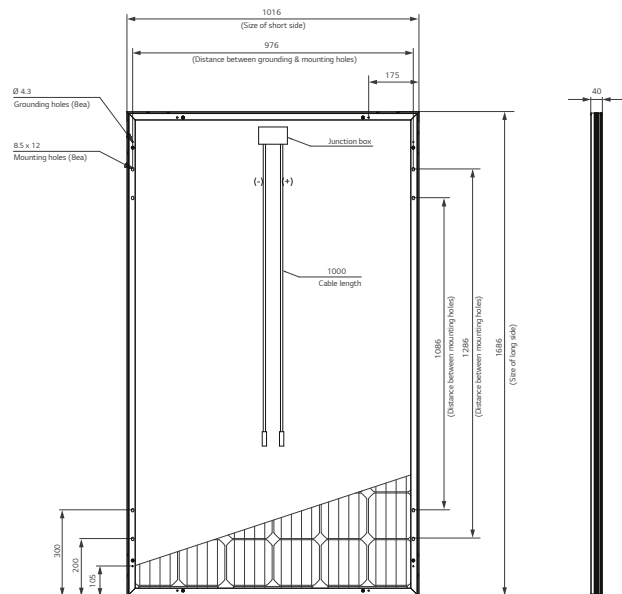
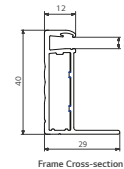
4) The nameplate power output is measured and determined by LG Electronics at its sole and absolute discretion.

## Electrical Properties (NOCT<sup>5</sup>)

Model		LG300S1C-A5	LG295S1C-A5	LG290S1C-A5
Maximum Power (Pmax)	[W]	220	216	212
MPP Voltage (Vmpp)	[V]	29.1	28.7	28.4
MPP Current (Impp)	[A]	7.56	7.53	7.47
Open Circuit Voltage (Voc)	[V]	36.0	35.7	35.4
Short Circuit Current (Isc)	[A]	8.10	8.06	8.02

<sup>5</sup> NOCT (Nominal Operating Cell Temperature): Irradiance 800 W/m<sup>2</sup>, ambient temperature 20°C, wind speed 1 m/s

## Dimensions (mm)



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

