

LG SOLAR –  
CLEAN ENERGY  
FOR LIFE.



MonoX<sup>®</sup>  
[www.lg-solar.com/uk](http://www.lg-solar.com/uk)

# LG MonoX<sup>R</sup> – A GOOD DECISION FOR LIFE

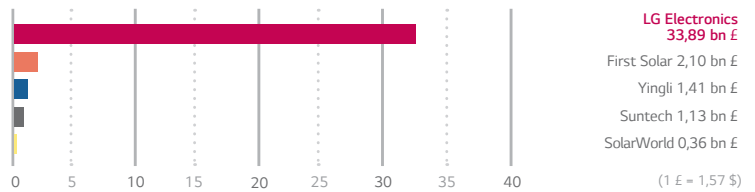
Buying a solar installation may be a once in a lifetime decision. So, it is good to know that you can rely on independent test results when looking for the right module for you. After all, you are making a decision for decades to come. The LG MonoX<sup>R</sup> solar modules from LG feature an excellent quality of craftsmanship and offer a very good cost/performance ratio.

## LOCAL GUARANTOR, GLOBAL SECURITY

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

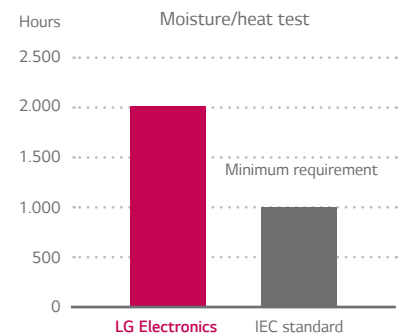
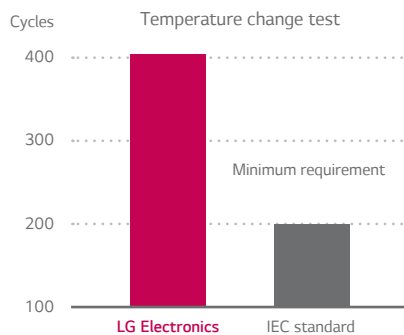
**Good to know:** LG Electronics is the warrantor for your solar modules.

The warrantor's 2013 sales in billions of pound



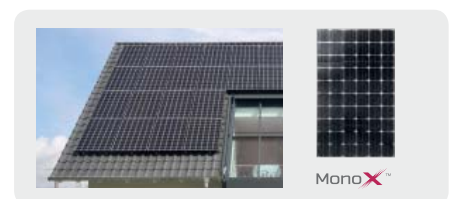
## EXCELLENT QUALITY, INDEPENDENTLY TESTED

We carry out product tests that truly scrutinise quality and performance. They are twice as intense as the tests 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 seal of quality and give them the highest rates of recommendation.



## CONTEMPORARY AND FUTURE PROOF

With its unobtrusive design and sleek black frame, the LG MonoX<sup>R</sup> blends in seamlessly with your house. The modern aesthetics mean that your modules will remain contemporary for years to come.



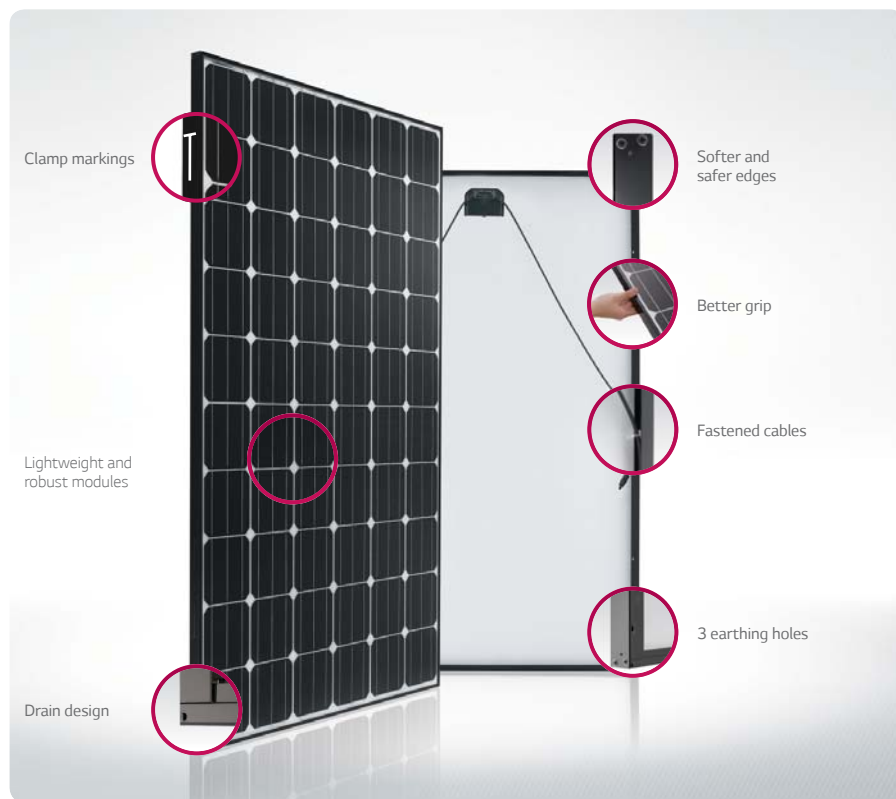
## A GOOD DECISION FOR LIFE

A solar installation is a once-in-a-lifetime purchase. This makes it all the more important to go for quality from the outset as it will save you a lot of trouble in the long run. The LG MonoX<sup>R</sup> solar modules are a good choice – they have a timeless and contemporary design and provide you with clean and reasonably priced energy. At the same time, you benefit from better quality in comparison with other modules – for a maximum of £ 0.63\* per month extra compared to cheap modules. That's just about the price of an espresso.



\*With a 4kWp installation, the difference between LG MonoX<sup>R</sup> and a cheap modules is a maximum of 189 pounds per module. Based on a useful life of 25 years, this equates to a difference of £ 0.63 per month. Not a lot of money for better quality and security.

# A STRONG PARTNER FULL OF ENERGY



LG Electronics, Inc. (Korean stock exchange: 06657.KS) is a global leader and technological innovator supplying electronics, information and communications products. At present, LG Electronics employs more than 82,000 staff at 119 factories worldwide. The company achieved total sales of 33.89 billion pounds in the financial year 2013.

LG is one of the world's largest manufacturers of mobile phones, flat-screen televisions, air conditioning units, washing machines and cooling appliances. As a forward-looking company, LG is committed to renewable energy technology and is expanding this area. LG produces its entire range of high-quality solar products at its parent plant in Korea.



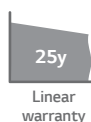
## QUALITY THAT HAS EVERYONE SMILING

### Top installer brand



LG solar modules have been awarded the Top Brand PV seal of quality for Britain, Germany and the Benelux countries. The seal of quality is awarded by EuPD Research – a leading market research company – for one of the highest recommendation rates by installers.

### 25-year linear warranty



LG Electronics gives a 25-year linear warranty on the LG MonoX<sup>®</sup> solar modules. This guarantees 6.7% more output than with the usual phased warranties.

### Sales of 33.89bn pounds in 2013



Since it was founded in 1958 (as Goldstar), LG Electronics has become one of the leading suppliers in the area of home electronics and solar power. As guarantor, LG Electronics guarantees the quality of its products through the financial strength of a company with global operations.

### 100% EL quality test



Each LG solar module is put through extensive electro-luminescence tests by LG Electronics. This allows us to identify cracks that are invisible to the human eye. Undetected, these could lead to reduced electricity yields.

### ~+3% positive output tolerance



LG Electronics only delivers modules with a 100% positive output tolerance. LG solar modules guarantee the stated output and often exceed them. This three-per-cent higher output tolerance is free.

### Easy installation



Handling LG modules is impressively easy – from transport through to installation. With each module weighing just 16.8 kg, they are easy to install, yet robust. Each module can withstand mechanical loads of up to 5.400 Pa.

### Mechanical Properties

CELLS	6 x 10
CELL VENDOR	LG
CELL TYPE	Monocrystalline
CELL DIMENSIONS	156.5 x 156.5 mm
# OF BUSBAR	3
GLASS	High transmission tempered glass
DIMENSIONS (L X W X H)	1.640 x 1.000 x 35 mm
STATIC SNOW LOAD	5.400 Pa
STATIC WIND LOAD	2.400 Pa
WEIGHT	16.8 ± 0.5 kg
CONNECTOR TYPE	MC4 connector IP67
JUNCTION BOX	IP 67 with 3 bypass diodes
LENGTH OF CABLES	1.000 mm
FRAME	Anodized aluminum

### Certifications and Warranty

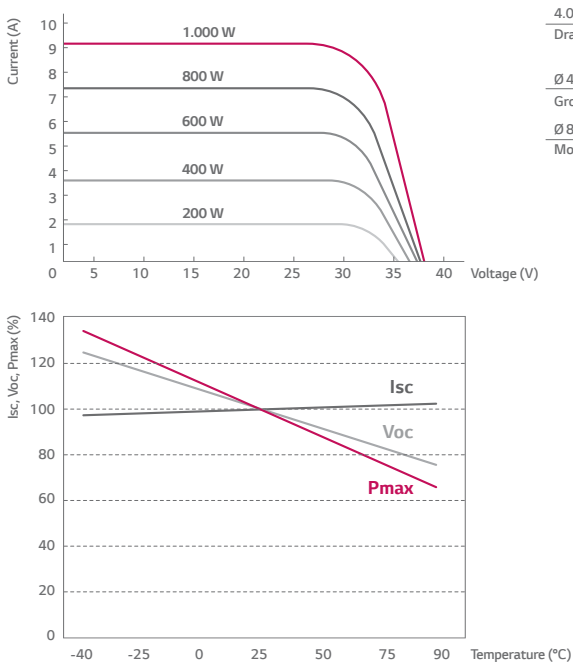
CERTIFICATIONS	IEC 61215, IEC 61730-1/-2, IEC 61701
	DLG-Fokus Test "Ammonia Resistance",
	ISO 9001, ISO 14001, OHSAS 18001
	UL 1703
PRODUCT WARRANTY	10 years
OUTPUT WARRANTY OF P <sub>MAX</sub> (MEASUREMENT TOLERANCE ± 3%)	25 years linear warranty <sup>1</sup>

<sup>1</sup> 1st year: 97%, 2-25 year: -0.7%/annual degradation, 80.2% for 25 years

### Temperature Coefficients

NOCT	45.0 ± 2 °C
PMPP	-0.43%/K
VOC	-0.31%/K
ISC	0.04%/K

### Characteristic Curves



### Electrical Properties (STC<sup>2</sup>)

	285 W	280 W	275 W
MPP VOLTAGE (VMPP)	32.1	31.9	31.7
MPP CURRENT (IMPP)	8.88	8.78	8.68
OPEN CIRCUIT VOLTAGE (VOC)	38.9	38.8	38.7
SHORT CIRCUIT CURRENT (ISC)	9.38	9.33	9.26
MODULE EFFICIENCY (%)	17.4	17.1	16.8
OPERATING TEMPERATURE (°C)	-40 ~ +90		
MAXIMUM SYSTEM VOLTAGE (V)	1000		
MAXIMUM SERIES FUSE RATING (A)	15		
POWER TOLERANCE (%)	0 ~ +3		

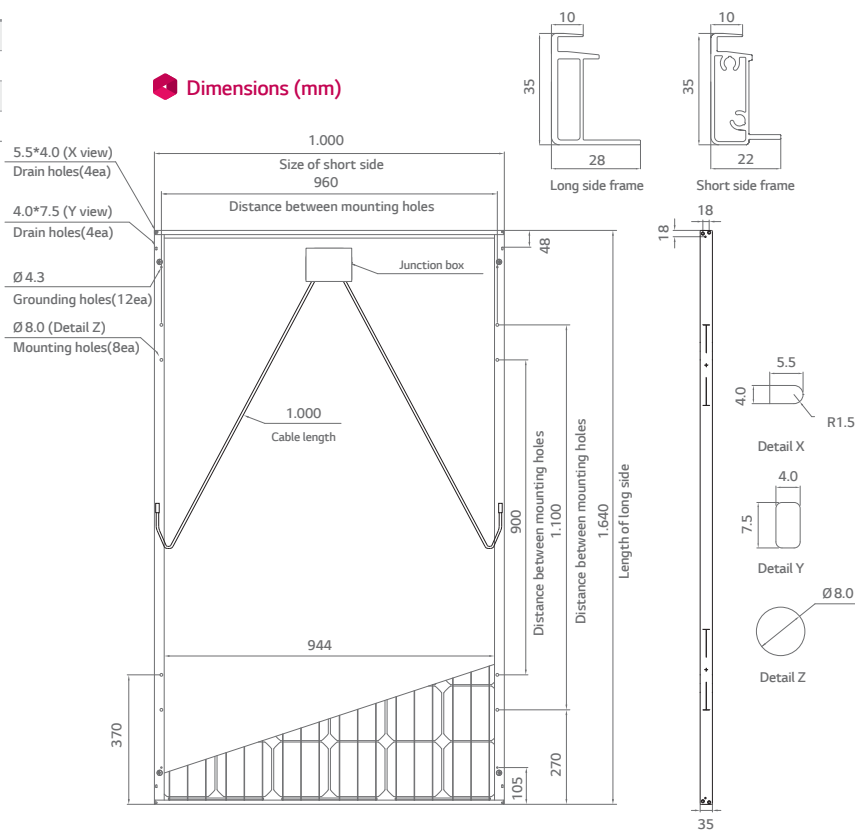
<sup>2</sup> STC (Standard Test Condition): Irradiance 1.000 W/m<sup>2</sup>, module temperature 25 °C, AM 1.5. The nameplate power output is measured and determined by LG Electronics at its sole and absolute discretion.

### Electrical Properties (NOCT<sup>3</sup>)

	209 W	205 W	202 W
MPP VOLTAGE (VMPP)	29.5	29.3	29.1
MPP CURRENT (IMPP)	7.08	7.00	6.92
OPEN CIRCUIT VOLTAGE (VOC)	36.1	36.0	35.9
SHORT CIRCUIT CURRENT (ISC)	7.56	7.52	7.46
EFFICIENCY REDUCTION (FROM 1.000 W/M <sup>2</sup> TO 200 W/M <sup>2</sup> )	< 4.5 %		

<sup>3</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 is between the center of the mounting/grounding holes.

