

LG MonoX[®] 2 Black

LG280S1K-L4

60 cell

LG's new module, LG MonoX[®] 2 Black, adopts Cello technology.

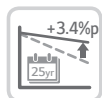
Cello technology replaces 3 busbars with 12 thin wires to enhance power output and reliability.

LG MonoX[®] 2 Black demonstrates LG's efforts to increase customer's values beyond efficiency. It features enhanced warranty, durability, performance under real environment, and aesthetic design suitable for roofs.



Cello Technology

Key Features



Enhanced Performance Warranty

LG MonoX[®] 2 Black has an enhanced performance warranty. The annual degradation has fallen from -0.7%/yr to -0.6%/yr. Even after 25 years, the cell guarantees 3.4%p more output than the previous modules.



Aesthetic Roof

LG MonoX[®] 2 Black has been designed with aesthetics in mind; thinner wires that appear all black at a distance. The product can increase the value of a property with its modern design.



High Power Output

Compared with previous models, the LG MonoX[®] 2 Black has been designed to significantly enhance its output efficiency making it efficient even in limited space.



Reduced LID

The LG Mono X[®] 2 Black 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, a key factor of LID (Light Induced Degradation).



Outstanding Durability

With its newly reinforced frame design, LG has extended the warranty of the LG MonoX[®] 2 Black for an additional 2 years. And LG MonoX[®] 2 Black can endure a front load up to 6000 Pa, a rear load up to 5400 Pa.



Light and Convenient

LG Mono X[®] 2 Black has been carefully designed, it weighs just 17kg 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[®] series to the market, which is now available in 32 countries. The NeON™ (previous MonoX[®] NeON) and The NeON™2 won the "Inter-solar AWARD" in 2013 and 2015, which demonstrates LG Solar's lead, innovation and commitment to the industry.

LG280S1K-L4

LG Mono X[®] 2 Black

Preliminary

Mechanical Properties

| | |
|------------------------|----------------------------------|
| Cells | 6 x 10 |
| Cell Vendor | LG |
| Cell Type | Monocrystalline / N-type |
| Cell Dimensions | 156.75 x 156.75 mm / 6 inches |
| # of Busbar | 12 (Multi Wire Busbar) |
| Dimensions (L x W x H) | 1640 x 1000 x 40 mm |
| Front Load | 6000 Pa |
| Rear Load | 5400 Pa |
| Weight | 17.0 ± 0.5 kg |
| Connector Type | MC4 |
| Junction Box | IP67 with 3 Bypass Diodes |
| Length of Cables | 1000 mm x 2ea |
| Glass | High Transmission Tempered Glass |
| Frame | Anodized Aluminium |

Certifications and Warranty

| | |
|-------------------------|---------------------------------------|
| Certifications | IEC 61215, IEC 61730-1/-2 |
| | IEC 62716 (Ammonia corrosion test)* |
| | IEC 61701 (Salt mist corrosion test)* |
| | MCS* |
| | ISO 9001 |
| Fire Rating | Class C |
| Product Warranty | 12 Years |
| Output Warranty of Pmax | Linear Warranty** |

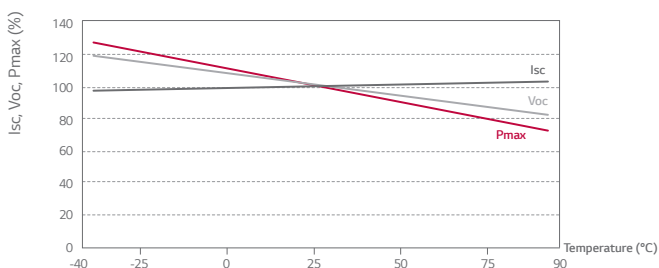
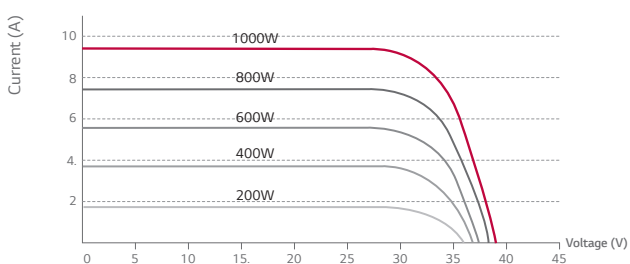
* In progress

** 1) 1st year: 98%, 2) After 2nd year: 0.6%p annual degradation, 3) 83.6% for 25 years

Temperature Characteristics

| | | |
|------|--------|------------|
| NOCT | [°C] | 46 ± 3 °C |
| Pmax | [%/°C] | -0.39 %/°C |
| Voc | [%/°C] | -0.30 %/°C |
| Isc | [%/°C] | 0.05 %/°C |

Characteristic Curves



Electrical Properties (STC*)

| Module Type | | LG280S1K-L4 |
|-----------------------------|------|-------------|
| Maximum Power (Pmax) | [W] | 280 |
| MPP Voltage (Vmpp) | [V] | 31.5 |
| MPP Current (Impp) | [A] | 8.9 |
| Open Circuit Voltage (Voc) | [V] | 38.6 |
| Short Circuit Current (Isc) | [A] | 9.39 |
| Module Efficiency | [%] | 17.1 |
| Operating Temperature | [°C] | -40 ~ +90 |
| Maximum System Voltage | [V] | 1000 |
| Maximum Series Fuse Rating | [A] | 15 |
| Power Tolerance (%) | [%] | 0 ~ +3 |

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

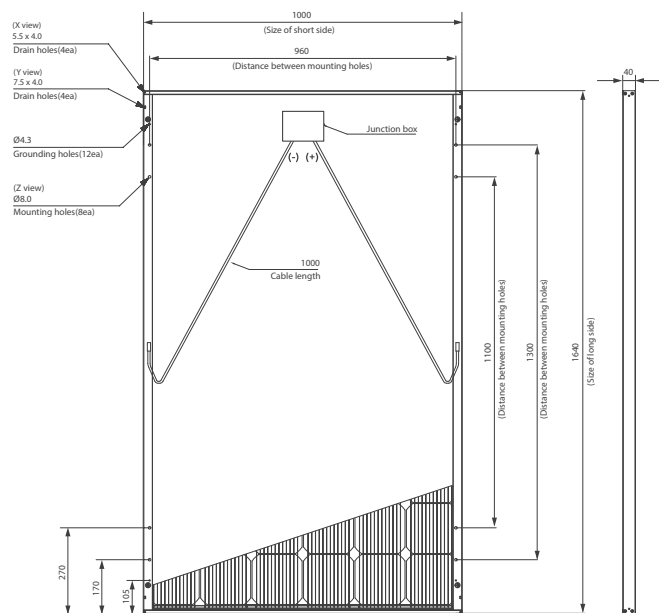
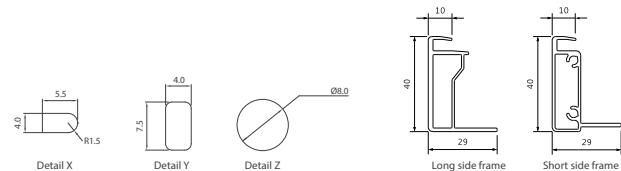
* The nameplate power output is measured and determined by LG Electronics at its sole and absolute discretion.

Electrical Properties (NOCT*)

| Module Type | | LG280S1K-L4 |
|-----------------------------|-----|-------------|
| Maximum Power (Pmax) | [W] | 205 |
| MPP Voltage (Vmpp) | [V] | 28.8 |
| MPP Current (Impp) | [A] | 7.12 |
| Open Circuit Voltage (Voc) | [V] | 35.6 |
| Short Circuit Current (Isc) | [A] | 7.59 |

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

Dimensions (mm)



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

