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Solar Panel Guide Specification Data Sheet

**Evolve Energy Group
LG290-300S1C-A5
LG300S1C-A5**

Also available on the web at
EnergyPal.com/evolve-energy-group-solar-panels/lg300s1c-a5

LG MonoX[®] Plus

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

60 cell

LG MonoX[®] 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[®] Plus include durability, convenient installation, and aesthetic exterior.

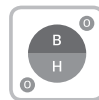


Key Features



Enhanced Performance Warranty

LG Mono X[®] 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[®] 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).



Extended Product Warranty

As well as the enhanced performance warranty, LG has extended the product warranty of the LG Mono X[®] Plus for an additional 2 years.



Outstanding Durability

With its newly reinforced frame design, LG Mono X[®] Plus can endure a front load up to 6000 Pa, and a rear load up to 5400 Pa.

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), NeON[®]2, NeON[®]2 BiFacial won the "Intersolar AWARD" in 2013, 2015 and 2016, which demonstrates LG Solar's lead, innovation and commitment to the industry.

LG300S1C-A5 | LG295S1C-A5 | LG290S1C-A5

LG Mono X[®] Plus

Mechanical Properties

Cells	6 x 10
Cell Vendor	LG
Cell Type	Monocrystalline / P-type
Cell Dimensions	161.7 x 161.7 mm / 6 inches
# of Busbar	4
Dimensions (L x W x H)	1,686 x 1,016 x 40 mm 66.39 x 40 x 1.57 in
Front Load	6,000Pa / 125 psf
Rear Load	5,400Pa / 113 psf
Weight	18.0 kg / 39.68 lb
Connector Type	MC4 (MC)
Junction Box	IP68 with 3 Bypass Diodes
Cables	1,000 mm x 2 ea / 39.37 in x 2 ea
Glass	High Transmission Tempered Glass
Frame	Anodized Aluminium

Certifications and Warranty

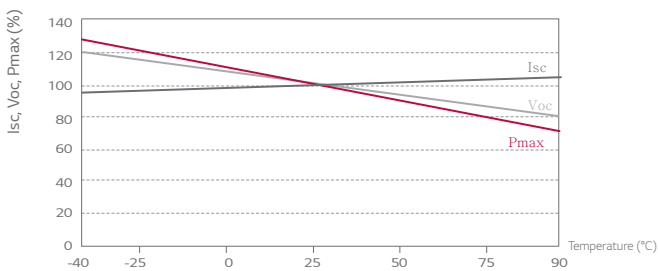
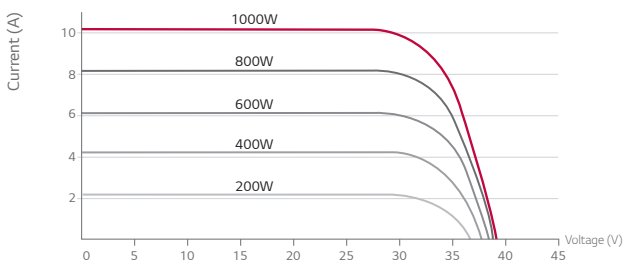
Certifications	IEC 61215, IEC 61730-1/-2
	UL 1703
	IEC 61701 (Salt mist corrosion test)
	IEC 62716 (Ammonia corrosion test)
	ISO 9001
Module Fire Performance	Type 1 (UL)
Fire Rating	Class C
Product Warranty	12 Years
Output Warranty of Pmax	Linear Warranty**

* 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*)

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 (UL / IEC)		
Maximum Series Fuse Rating	[A]	20		
Power Tolerance	[%]	0 ~ +3		

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

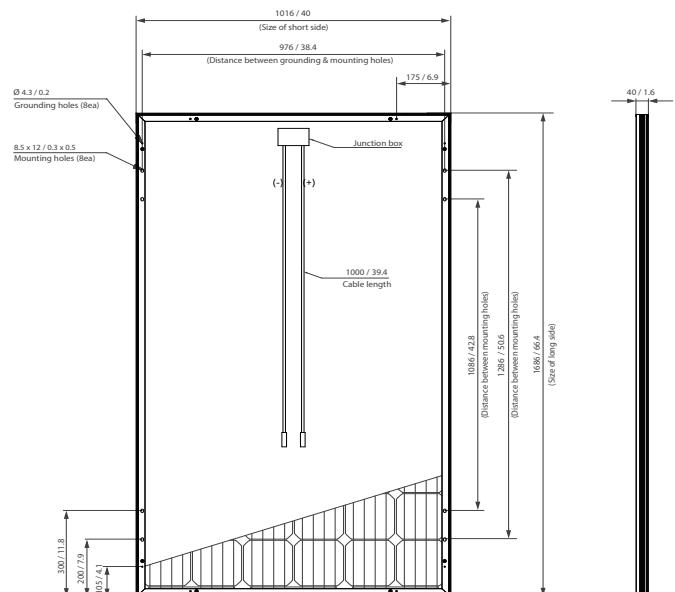
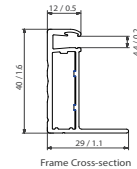
* The nameplate power output is measured and determined by LG Electronics at its sole and absolute discretion.

Electrical Properties (NOCT*)

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

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

Dimensions (mm / inch)



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

