

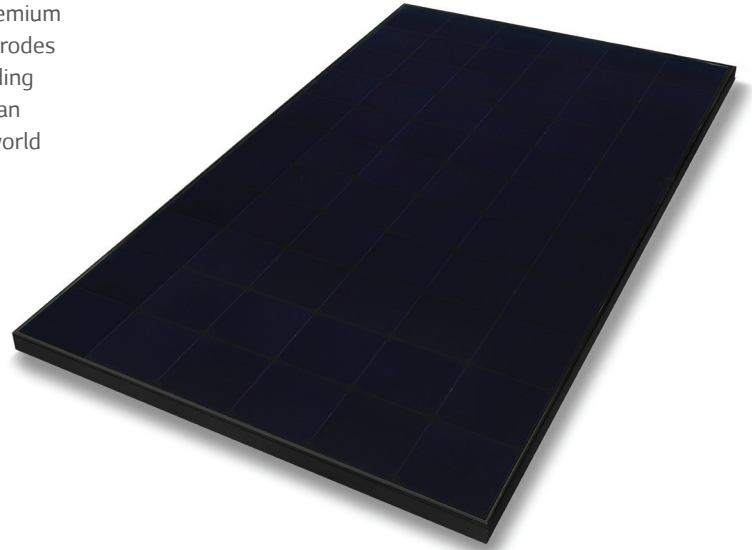
# LG NeON<sup>®</sup> R Prime

LG420QAK-A6

66

## 420W

LG Solar's NeON<sup>®</sup> R Prime is a powerful solar module that provides premium performance. The NeON<sup>®</sup> R incorporates a cell structure without electrodes on the front to maximize light utilization and enhance reliability. Providing added value for the customer beyond efficiency, this module features an enhanced warranty, outstanding durability, solid performance in real-world conditions and aesthetic design suitable for roofs.



## Features



### Roof Aesthetics

LG NeON<sup>®</sup> R has been designed with aesthetics in mind: the lack of any electrodes on the front creates an improved, modern aesthetic.



### 25-Year Limited Product Warranty

The NeON<sup>®</sup> R covered by a 25-year limited product warranty. In addition, up to \$450 of labor costs will be covered in the rare case that a module needs to be repaired or replaced.



### Enhanced Performance Warranty

LG NeON<sup>®</sup> R has an enhanced performance warranty. After 25 years, LG NeON<sup>®</sup> R is guaranteed at least 92.5% of initial performance.



### More Generation Per Square Meter

The LG NeON<sup>®</sup> R has been designed to significantly enhance its output, making it efficient even in limited space.

When you go solar, ask for the brand you can trust: LG Solar

## About LG Electronics USA, Inc.

LG Electronics is a global leader in electronic products in the clean energy markets by offering solar PV panels and energy storage systems. 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's leadership and innovation in the solar industry.



# LG NeON<sup>®</sup>R Prime

## LG420QAK-A6

### General Data

Cell Properties (Material/Type)	Monocrystalline/N-type
Cell Maker	LG
Cell Configuration	66 Cells (6 x 11)
Module Dimensions (L x W x H)	1,910mm x 1,042mm x 40mm
Weight	20.5 kg
Glass (Material)	Tempered Glass with AR Coating
Backsheet (Color)	Black
Frame (Material)	Anodized Aluminium
Junction Box (Protection Degree)	IP 68 with 3 Bypass Diodes
Cables (Length)	1,250mm x 2EA
Connector (Type/Maker)	MC 4/MC

### Certifications and Warranty

Certifications	IEC 61215-1/-1-1/2 : 2016, IEC 61730-1/2 : 2016, UL 61730-1 : 2017, UL 61730-2 : 2017
	ISO 9001, ISO 14001, ISO 50001
	OHSAS 18001
Salt Mist Corrosion Test	IEC 61701 : 2012 Severity 6
Ammonia Corrosion Test	IEC 62716 : 2013
Hail Test	25mm (1") diameter at 23m/s (52mph)
Module Fire Performance	Type 2 (UL 61730)
Fire Rating	Class C (UL 790, ULC/ORD C 1703)
Solar Module Product Warranty	25 Year Limited
Solar Module Output Warranty	Linear Warranty*

\*Improved: 1<sup>st</sup> year 98.5%, from 2-24th year: -0.25%/year down, 92.5% for 25 years (TBD)

### Temperature Characteristics

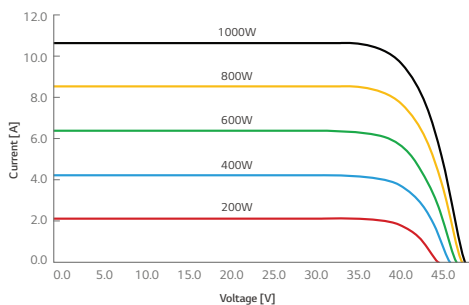
NMOT*	[ °C ]	44 ± 3
Pmax	[%/°C]	-0.29
Voc	[%/°C]	-0.24
Isc	[%/°C]	0.04

\*NMOT (Nominal Module Operating Temperature): Irradiance 800 W/m<sup>2</sup>, Ambient temperature 20°C, Wind speed 1 m/s, Spectrum AM 1.5

### Electrical Properties (NMOT)

Model	LG420QAK-A6	
Maximum Power (Pmax)	[W]	319
MPP Voltage (Vmpp)	[V]	39.0
MPP Current (Imp)	[A]	8.17
Open Circuit Voltage (Voc)	[V]	45.8
Short Circuit Current (Isc)	[A]	8.73

### I-V Curves



### Electrical Properties (STC\*)

Model	LG420QAK-A6	
Maximum Power (Pmax)	[W]	420
MPP Voltage (Vmpp)	[V]	41.3
MPP Current (Imp)	[A]	10.19
Open Circuit Voltage (Voc, ± 5%)	[V]	48.0
Short Circuit Current (Isc, ± 5%)	[A]	10.83
Module Efficiency	[%]	21.1
Power Tolerance	[%]	0 ~ +3

\*STC (Standard Test Condition): Irradiance 1000 W/m<sup>2</sup>, cell temperature 25°C, AM 1.5 Measure Tolerance: ± 3%

### Operating Conditions

Operating Temperature*	[°C]	-40 ~ +85
Maximum System Voltage	[V]	1,000
Maximum Series Fuse Rating	[A]	20
Mechanical Test Load** (Front)	[Pa/psf]	5,400
Mechanical Test Load** (Rear)	[Pa/psf]	4,000

\*The operating ambient temperature of these devices may exceed 40°C at full load for all wire sizes if is determined suitable in the field use application.

\*\*Based on IEC 61215-2 : 2016 (Test Load = Design Load x Safety Factor (1.5))

### Packaging Configuration

Number of Modules per Pallet	[EA]	25
Number of Modules per 40' Container	[EA]	600
Number of Modules per 53' Container	[EA]	800
Packaging Box Dimensions (L x W x H)	[mm]	1,960 x 1,120 x 1,221
Packaging Box Dimensions (L x W x H)	[in]	77.2 x 44.1 x 48.1
Packaging Box Gross Weight	[kg]	549
Packaging Box Gross Weight	[lb]	1,210

### Dimensions (mm/inch)

