

# LDK 215-190

## 48-cell Multicrystalline PV Module Series



### QUALITY & EFFICIENCY BENEFITS

**Up to 18%**  
Cell efficiency

Highest performance enabled by the latest LDK Solar Wafer Technology

**15 kg**

The lower weight design reduces the total system load on a roof, making it ideal for residential customers. Its shape allows for better roof utilization. Its low weight means easier handling for installers.

**PID**  
Resistance

Modules are designed to withstand PID (Potential Induced Degradation)\*

**+2%**  
Light  
transmission

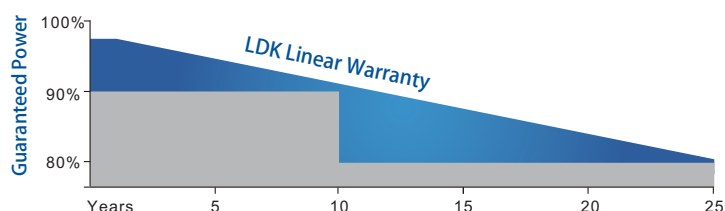
High light transmission Anti-Reflective Glass with improved self-cleaning capability

**0/+5W**  
Positive  
tolerance

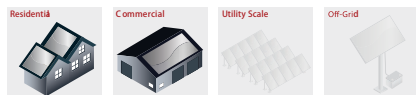
Positive power tolerance for reliable power output

\* PID test conditions : voltage of -1000V applied during 48 hours at 60±2°C, 85±5%RH

### WARRANTY BENEFITS



#### APPLICATION RECOMMENDATION



LDK Solar offer 10 years product warranty and 25 years linear warranty

### QUALITY & ENVIRONMENTAL CERTIFICATES

ISO 9001 Quality Standards • ISO 14001 Environmental Standards • OHSAS 18001 Occupational Health & Safety Standards



# LDK 215-190

## 48-cell Multicrystalline PV Module Series



### ELECTRICAL CHARACTERISTICS (STC\*)

Module Type	LDK	215 PC	210 PC	205 PC	200 PC	195 PC	190 PC
Nominal Power (P <sub>max</sub> )	[W]	215	210	205	200	195	190
Minimum Power Output	[W]	215	210	205	200	195	190
Voltage at P <sub>max</sub> (V <sub>mp</sub> )	[V]	24.9	24.7	24.4	24.2	23.9	23.6
Current at P <sub>max</sub> (I <sub>mp</sub> )	[A]	8.62	8.50	8.39	8.27	8.16	8.06
Open Circuit Voltage (V <sub>oc</sub> )	[V]	30.7	30.5	30.3	30.2	30.1	30.0
Short Circuit Current (I <sub>sc</sub> )	[A]	9.11	8.97	8.83	8.69	8.55	8.31
Tolerance on Nominal Power	[W]	-0/+5	-0/+5	-0/+5	-0/+5	-0/+5	-0/+5
Maximum System Voltage	[V]	IEC EN / UL: 1000 V					
Cell Efficiency	[%]	18.41	17.98	17.55	17.12	16.69	16.26
Module Efficiency	[%]	16.52	16.13	15.75	15.37	14.98	14.60

STC\* (Standard Test Conditions): Irradiance 1000 W/m<sup>2</sup>, Cell Temperature 25 °C, Air Mass AM 1.5  
Best in Class AAA solar simulator (IEC 60904-9) is used, with power measurement uncertainty within ±3%

### ELECTRICAL CHARACTERISTICS AT NOCT \*\*

Module Type	LDK	215 PC	210 PC	205 PC	200 PC	195 PC	190 PC
Output Power (P <sub>max</sub> )	[W]	155	151	149	146	143	140
Voltage at P <sub>max</sub> (V <sub>mp</sub> )	[V]	22.5	22.3	22.2	22.1	21.9	21.7
Current at P <sub>max</sub> (I <sub>mp</sub> )	[A]	6.90	6.80	6.71	6.62	6.53	6.44
Open Circuit Voltage (V <sub>oc</sub> )	[V]	28.3	28.1	28.0	27.8	27.7	27.6
Short Circuit Current (I <sub>sc</sub> )	[A]	7.28	7.17	7.06	6.95	6.84	6.73

NOCT\*\* (Nominal Operating Cell Temperature): Irradiance 800 W/m<sup>2</sup>, Ambient Temperature 20 °C, Wind speed 1 m/s  
Best in Class AAA solar simulator (IEC 60904-9) is used, with power measurement uncertainty within ±3%

### TEMPERATURE CHARACTERISTICS

NOCT	45 ± 2 °C
P <sub>max</sub> Temperature Coefficient (γ)	- 0.42 %/°C
V <sub>oc</sub> Temperature Coefficient (β)	- 0.32 %/°C
I <sub>sc</sub> Temperature Coefficient (α)	0.06 %/°C
Series Fuse Maximum Rating	15 A
Operating Temperature	From - 40 to +85 °C
Storage Temperature	From - 40 to +60 °C

### MECHANICAL CHARACTERISTICS

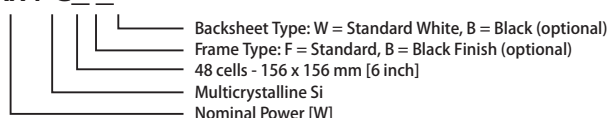
Solar Cells	48 (6x8) multicrystalline silicon - 156 x 156 mm [6 inch] solar cells
Front Glass	3.2 mm [0.13 in] high-transparency AR-coated tempered glass
Back Cover	White or Black (optional) Backsheet
Encapsulant	EVA (Ethylene-Vinyl Acetate)
Frame	Anodized aluminium alloy
Junction Box	Submarine IP67 rated, with serviceable bypass diodes
Cables	UV resistant solar cable, 900 mm [35.43 in] - section 4.0 mm <sup>2</sup> [12 AWG]
Connectors	MC4 compatible connectors
Dimensions	1320 x 986 x 35 mm [51.97 x 38.82 x 1.38 in]
Weight	15 kg [33.1 lbs]
Max. Load	Wind Load: 2400 Pa / Snow Load: 5400 Pa

### PACKING CONFIGURATION

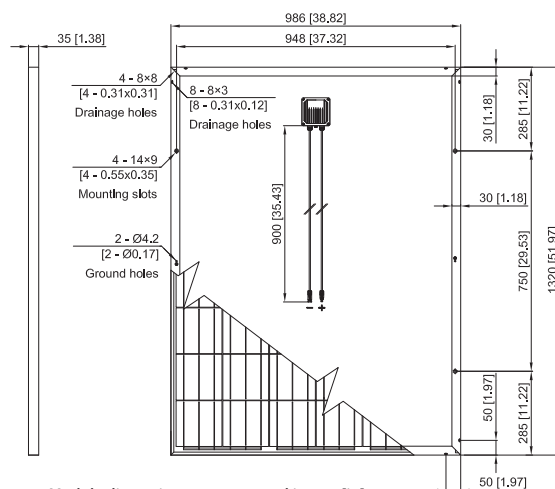
Quantity / Pallet	30 pcs/pallet	50 pcs/pallet
Pallet / Container	32 Pallets/Container	8 pallets/container
Loading Capacity	960 pcs./40 ft High Cube Container	400 pcs./20 ft Normal Container

### MODULE TYPE CODING RULE

LDK xxx PC

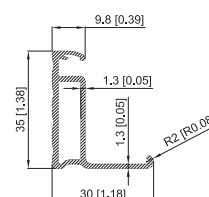


### DIMENSIONS

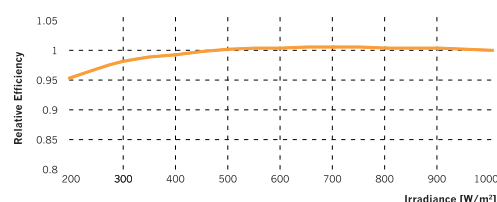


Module dimensions are expressed in mm [in]  
with tolerance ± 2 mm [± 0.079 in]

### NEW FRAME CROSS SECTION

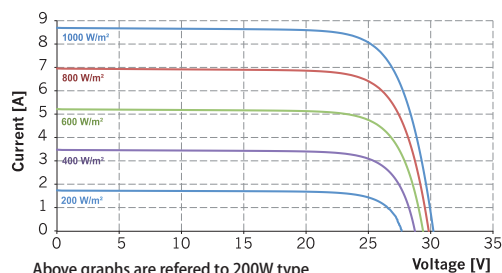


### PERFORMANCE AT LOW IRRADIANCE



The typical relative change in module efficiency at an irradiance of 200 W/m<sup>2</sup> in relation to 1000 W/m<sup>2</sup> (both at 25 °C and spectrum AM 1.5) is less than 5%

### I-V CURVE AT DIFFERENT IRRADIANCE LEVELS



Above graphs are referred to 200W type

### PRODUCT OPTIONS

