

### 200P WATT to 250P WATT



#### Why LDK Solar Modules

- Industry leading module power output warranty
- Module performance reinsurance policy
- International quality, safety and performance certifications
- Modules manufactured at ISO 9001 certified factories
- High-reliability with guaranteed 0/+5W peak power classification

#### Warranty:

- 5 years for product defects in materials and workmanship
- 12 years for 90% of warranted minimum power
- 25 years for 80% of warranted minimum power

#### Certificates:



- IEC: IEC 61215, IEC 61730 (1&2), conformity to CE
- UL1703 2002/03/15 Ed:3 Rev:2004/06/30
- ULC/ORD-C1703-01 second edition 2001/01/01
- UL and Canadian standard for safety flat-plate
- ISO9001:2008 Quality Management System
- CEC Listed: Modules are eligible for California rebates
- PV Cycle: Voluntary module take back and recycling program

#### About LDK Solar

Established only in 2005 in China, LDK Solar is the world's largest producer of solar wafers in terms of capacity and a leading solar module manufacturer. The company has expanded its business to meet the solar industry's requirements for high-quality and low-cost solar materials and solutions. As a vertically integrated manufacturer and supplier of photovoltaic (PV) products, LDK Solar has more than 13,000 employees worldwide. The Company's headquarters and manufacturing facilities are located in Hi-Tech Industrial Park, Xin Yu City, Jiang Xi Province in the People's Republic of China. LDK Solar maintains sales, marketing, and customer services offices throughout Asia, Europe and North America.

#### LDK Solar PV Value Chain



### ELECTRIC CHARACTERISTICS (STC\*)

Type	200 P-20	205 P-20	210 P-20	215 P-20	220 P-20	225 P-20	230 P-20	235 P-20	240 P-20	245 P-20	250 P-20
Nominal Output (Pmax) [W]	200	205	210	215	220	225	230	235	240	245	250
Warranted Minimum Power [W]	194	198.85	203.7	208.55	213.4	218.25	223.1	227.95	232.8	237.65	242.5
Flash Test Power Classification	0/+5 W	0/+5 W	0/+5 W	0/+5 W	0/+5 W	0/+5 W	0/+5 W	0/+5 W	0/+5 W	0/+5 W	0/+5 W
Voltage at Pmax (Vmp) [V]	29.5	29.6	29.7	29.8	29.8	29.9	29.9	30.0	30.0	30.1	30.2
Current at Pmax (Imp) [A]	6.75	6.93	7.07	7.23	7.40	7.53	7.68	7.84	7.98	8.14	8.28
Open Circuit Voltage (Voc) [V]	36.0	36.0	36.1	36.3	36.5	36.7	36.8	36.8	36.9	37.2	37.5
Short Circuit Current (Isc) [A]	7.82	7.82	7.83	7.98	8.14	8.24	8.34	8.35	8.35	8.48	8.59
Maximum System Voltage	IEC: 1000 V / UL: 600 V										
Maximum Series Fuse Rating	12A										
Cell Efficiency [%]	14.12	14.47	14.83	15.18	15.53	15.89	16.24	16.59	16.94	17.29	17.64
Module Efficiency [%]	12.25	12.56	12.87	13.17	13.48	13.79	14.09	14.40	14.70	15.01	15.32

STC\* (Standard Test Conditions): Irradiance 1000W/m<sup>2</sup>, Module Temperature 25°C, Air Mass 1.5

### ELECTRICAL PERFORMANCE AT NOCT

Type	200 P-20	205 P-20	210 P-20	215 P-20	220 P-20	225 P-20	230 P-20	235 P-20	240 P-20	245 P-20	250 P-20
Nominal Output (Pmax) [W]	145	149	152	156	159	163	167	170	174	178	181
Voltage at Pmax (Vmp) [V]	25.1	25.7	26.2	26.3	26.4	26.7	27.1	27.4	28.0	28.1	28.2
Current at Pmax (Imp) [A]	5.80	5.80	5.81	5.93	6.04	6.12	6.19	6.22	6.23	6.33	6.42
Open Circuit Voltage (Voc) [V]	33.1	33.1	33.2	33.4	33.6	33.8	33.9	33.9	34.0	34.3	34.5
Short Circuit Current (Isc) [A]	6.33	6.33	6.34	6.46	6.59	6.67	6.75	6.76	6.76	6.87	6.95

NOCT: Irradiance 800 W/m<sup>2</sup>, Module Temperature 45± 2 °C, Air Mass 1.5

### TEMPERATURE CHARACTERISTICS

Type	LDK-P-20 Series
NOCT**	45±2 °C
Temperature Coefficient of Pmax	-0.47 % / °C
Temperature Coefficient of Voc	-0.34 % / °C
Temperature Coefficient of Isc	0.06 % / °C
Operating Temperature	-40°C to +85°C

NOCT\*\*: Nominal Operation Cell Temperature Sun 800W/m<sup>2</sup>; Air 20°C; Wind speed 1m/s

### MECHANICAL CHARACTERISTICS

Type	LDK-P-20 Series
Solar Cells	60(6x10) polycrystalline cells 156mm
Front Cover	3.2mm thick, low iron tempered glass
Back Cover	TPT (Tedlar-PET-Tedlar)
Encapsulant	EVA (Ethylene vinyl acetate)
Frame	Anodized aluminium alloy, double wall
Diodes	6 Bypass diodes serviceable
Junction Box	IP65 rated
Connector	MC4 or compatible connector
Cables	Length: 1200 mm / Section: 4.0 mm <sup>2</sup>
Dimension	1642 x 994 x 40 mm / 64.6 x 39.1 x 1.6 inches
Weight	20 Kg / 44.1 lbs
Max. Load	Certified to 5400 Pa

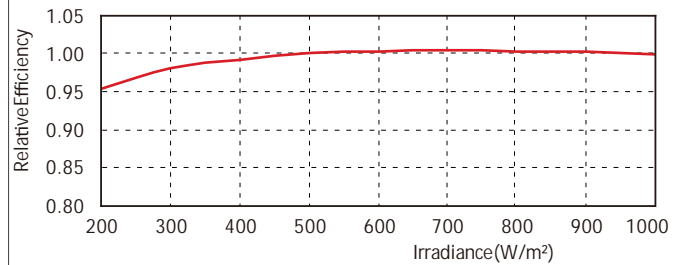
### PACKING CONFIGURATION

Type	LDK-P-20 Series
Packing Configuration	24 pcs. / box
Quantity / Pallet	48 pcs. / pallet
Loading Capacity	624 pcs. / 40ft (H)

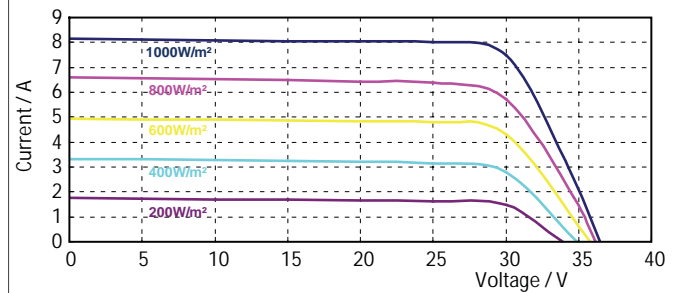
Partner:

### PERFORMANCE AT LOW IRRADIANCE

The typical relative change in module efficiency at an irradiance of 200W/m<sup>2</sup> in relation to 1000W/m<sup>2</sup> (both at 25°C and AM 1.5 spectrum) is less than 6%

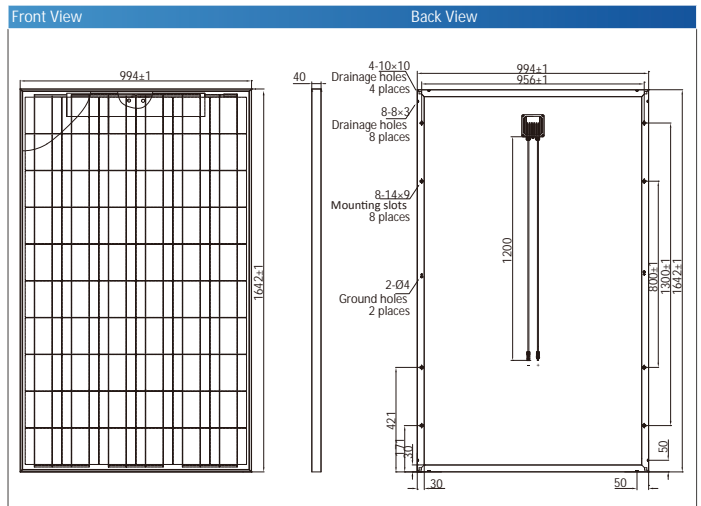


### IV CURVE AT DIFFERENT IRRADIANCE LEVELS



Above graphics according to LDK-220P-20

### DIMENSIONS



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