

WHY LDK SOLAR MODULES

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

WARRANTIES

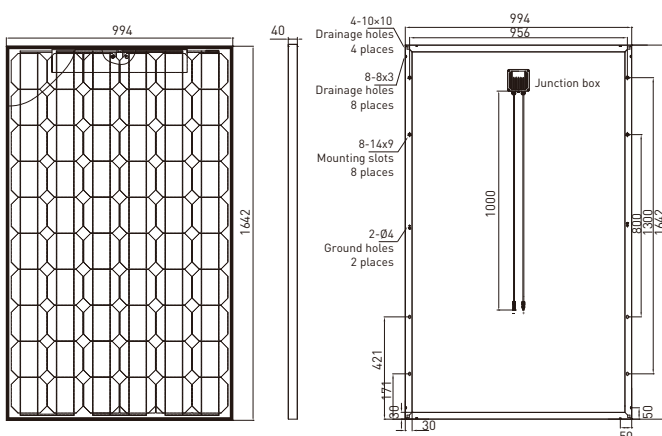
- 10 years for product defects in materials & workmanship
- 12 years for 90% of warranted minimum power
- 25 years for 80% of warranted minimum power

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

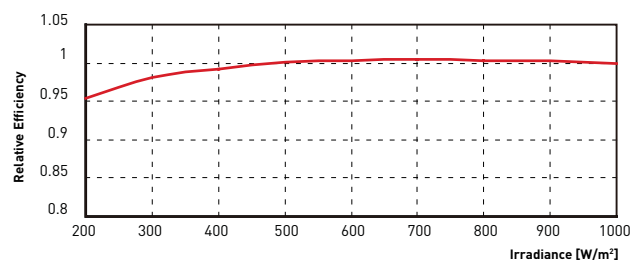


DIMENSIONS



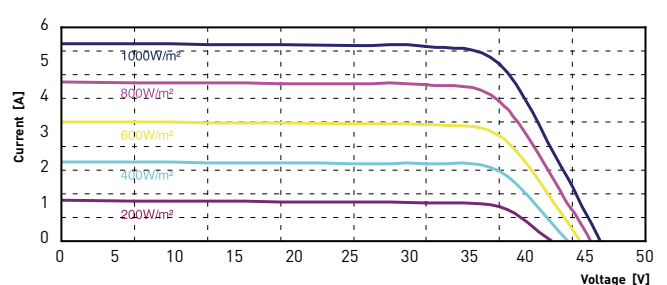
Tolerance of length and width dimensions is ± 2 mm

PERFORMANCE AT LOW IRRADIANCE



The typical relative change in module efficiency at an irradiance of 200W/m² in relation to 1000W/m² (both at 25°C and AM 1.5 spectrum) is less than 6%

IV CURVE AT DIFFERENT IRRADIANCE LEVELS



Above graphics according to LDK-220D-20

MONOCRYSTALLINE MODULES

ELECTRIC CHARACTERISTICS (STC*)

TYPE	220D-20	225D-20	230D-20	235D-20	240D-20	245D-20	250D-20	255D-20	260D-20
Nominal Output (Pmax) [W]	220	225	230	235	240	245	250	255	260
Voltage at Pmax (Vmp) [V]	31.2	31.5	31.8	32.0	32.2	32.4	32.6	32.8	33.0
Current at Pmax (Imp) [A]	7.05	7.15	7.23	7.35	7.45	7.56	7.67	7.78	7.88
Open Circuit Voltage (Voc) [V]	36.9	37.0	37.2	37.2	37.3	37.4	37.5	37.6	37.8
Short Circuit Current (Isc)	8.01	8.11	8.21	8.30	8.39	8.48	8.57	8.66	8.76
The power tolerance is +/- 3% referred to the Nominal Output									
Maximum System Voltage	IEC: 1000V / UL: 600 V								
Cell Efficiency	15.81	16.18	16.56	16.90	17.25	17.51	17.93	18.34	18.70
Module Efficiency	13.48	13.79	14.09	14.40	14.70	15.01	15.32	16.03	16.34

STC* (Standard Test Conditions): Irradiance 1000W/m², Module Temperature 25°C, Air Mass 1.5

ELECTRICAL PERFORMANCE AT NOCT

TYPE	220D-20	225D-20	230D-20	235D-20	240D-20	245D-20	250D-20	255D-20	260D-20
Nominal Output (Pmax)	159	163	167	170	174	178	181	185	188
Voltage at Pmax (Vmp)	26.5	26.8	27.1	27.3	27.7	28.0	28.2	28.5	28.7
Current at Pmax (Imp)	6.01	6.09	6.16	6.23	6.28	6.36	6.41	6.49	6.55
Open Circuit Voltage (Voc)	34.0	34.1	34.3	34.3	34.3	34.4	34.5	34.6	34.7
Short Circuit Current (Isc)	6.48	6.57	6.65	6.72	6.79	6.87	6.94	7.00	7.06

NOCT: Irradiance 800 W/m², Module Temperature 45± 2°C, Air Mass 1.5

TEMPERATURE CHARACTERISTICS

TYPE	LDK-D-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
Maximum Series Fuse Rating	20
Operating Temperature	-40 to +85°C
Storage Temperature	-40 to +60°C

NOCT**: Nominal Operation Cell Temperature Sun 800 W/m²; Air 20°C; wind speed 1m/s

MECHANICAL CHARACTERISTICS

TYPE	LDK-D-20 Series
Solar Cells	60 (6x10) monocrystalline silicon solar cells 156 x 156 mm
Front Cover	3.2 mm thick, tempered glass / AR coating glass
Back Cover	TPT (Tedlar-PET-Tedlar) / BBF
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: 1000 mm / Section: 4.0 mm ²
Dimension	1642 x 994 x 40 mm / 64.2 x 39.1 x 1.6 inches
Weight	20 kg / 44.1 lbs
Max. Load	Wind Load: 2400Pa / Snow Load: 5400 Pa

PACKING CONFIGURATION

TYPE	LDK-D-20 Series
Packing Configuration	25 pcs. / box
Quantity/Pallet	50 pcs. / pallet
Loading Capacity	700 pcs. / 40 ft (H)

LDK Solar reserves the right to make specifications changes without any prior notice.

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