220D-225D-230D-235D-240D-245D-250D-255D-260D-20

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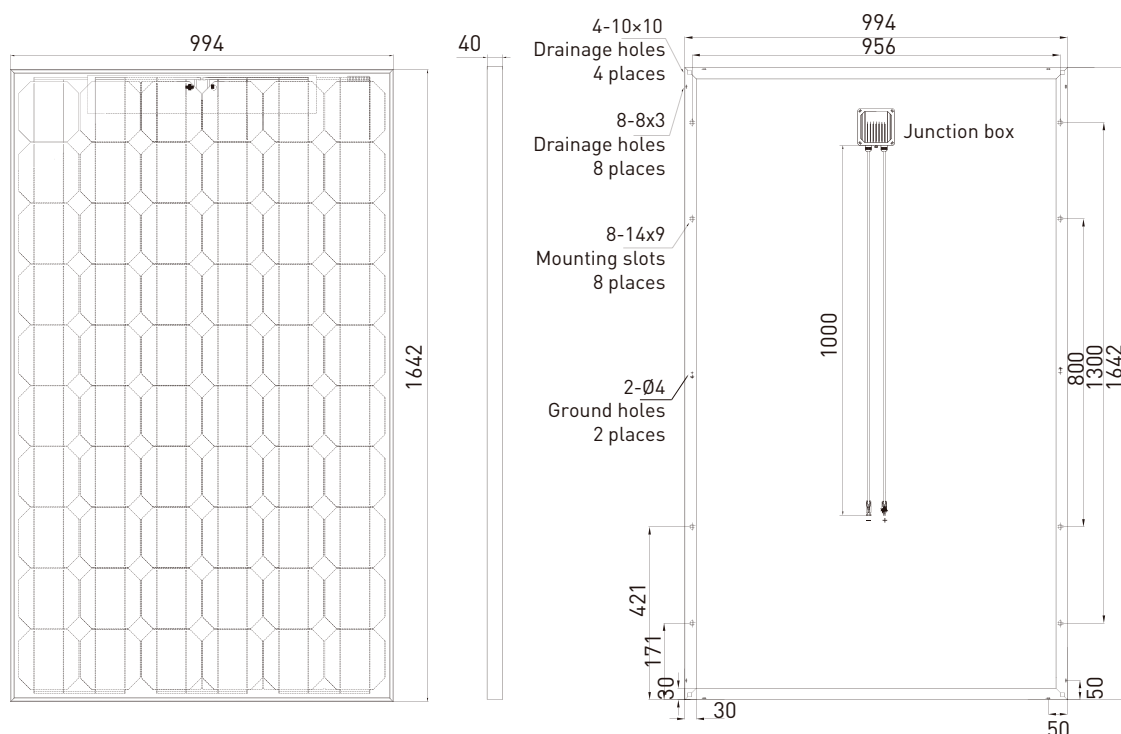
• Industry leading module power output warranty
• International quality, safety and performance certifications
• Modules manufactured in ISO 9001 certified factories
• High-reliability with guaranteed 0/+5 Wp peak power classification

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 EN 61215, IEC EN 61730-1-2, CE Conformity
• UL 1703 2002/03/15 Ed:3 Rev:2008/04/08
• ULC/ORD-C1703-01 second edition 2001/01/01
• UL and Canadian standard for safety flat-plate
• ISO 9001:2008 Quality Management System
• CEC Listed: modules are eligible for California rebates
• PV CYCLE: voluntary module take back and recycling program
• MCS The Microgeneration Certification Scheme UK

994

40

994
956

4-10×10
Drainage holes
4 places

8-8x3
Drainage holes
8 places

Junction box

8-14x9
Mounting slots
8 places

1000

1642

800
1300
1642

2-Ø4
Ground holes
2 places

421

171

30

30

50

50

MONOCRYSTALLINE MODULES

ELECTRICAL CHARACTERISTICS (STC*)

TYPE	220D-20	225D-20	230D-20	235D-20	240D-20	245D-20	250D-20	255D-20	260D-20
Nominal Output (Pmax) [Wp]	220	225	230	235	240	245	250	255	260
Voltage at Pmax (Vmp) [V]	27.5	27.9	28.3	28.7	29.1	29.5	29.9	30.3	30.7
Current at Pmax (Imp) [A]	8.05	8.10	8.15	8.21	8.26	8.32	8.38	8.43	8.48
Open Circuit Voltage (Voc) [V]	36.3	36.5	36.8	37.0	37.3	37.6	37.8	38.1	38.3
Short Circuit Current (Isc) [A]	8.82	8.83	8.85	8.87	8.88	8.90	8.92	8.93	8.95
Power Classification Range [Wp]	-0/+4.99	-0/+4.99	-0/+4.99	-0/+4.99	-0/+4.99	-0/+4.99	-0/+4.99	-0/+4.99	-0/+4.99
Tolerance on Nominal Output [%]	+/-3	+/-3	+/-3	+/-3	+/-3	+/-3	+/-3	+/-3	+/-3
Maximum System Voltage	IEC EN: 1000 V / UL: 1000 V								
Cell Efficiency [%]	15.34	15.69	16.04	16.39	16.74	17.09	17.44	17.79	18.13
Module Efficiency [%]	13.48	13.79	14.09	14.40	14.70	15.01	15.32	15.62	15.93

STC* (Standard Test Conditions): Irradiance 1000 W/m^2, 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) [Wp]	160	163	167	170	174	178	181	185	189
Voltage at Pmax (Vmp) [V]	24.8	25.2	25.6	25.9	26.3	26.7	27.0	27.4	27.8
Current at Pmax (Imp) [A]	6.44	6.48	6.52	6.57	6.61	6.66	6.70	6.74	6.78
Open Circuit Voltage (Voc) [V]	33.5	33.7	34.0	34.2	34.5	34.7	34.8	35.1	35.3
Short Circuit Current (Isc) [A]	7.14	7.15	7.17	7.18	7.19	7.21	7.23	7.23	7.25

NOCT: Irradiance 800 W/m^2, 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 A
Operating Temperature	from -40 to +85 °C
Storage Temperature	from -40 to +60 °C

NOCT** (Nominal Operating Cell Temperature): irradiance 800 W/m^2, Air 20 °C, wind speed 1 m/s

MECHANICAL CHARACTERISTICS

TYPE	LDK-D-20 Series
Solar Cells	60 (6x10) monocrystalline silicon solar cells 156 x 156 mm
Front Glass	3.2 mm thick, tempered glass / AR coating glass
Backsheet	TPT (Tedlar-PET-Tedlar) / BBF
Encapsulant	EVA (ethylene vinyl acetate)
Frame	Double-layer anodized aluminium alloy
Diodes	6 (3 x 2 in parallel) serviceable Bypass Diodes
Junction Box	IP65 rated
Connectors	MC4 or compatible connectors
Cables	Length: 1000 mm / Section: 4.0 mm^2
Dimensions	1642 x 994 x 40 mm / 64.64 x 39.13 x 1.57 in
Weight	19 kg / 41.9 lbs
Max. Load	Wind Load: 2400 Pa / Snow Load: 5400 Pa

I-V CURVE AT DIFFERENT IRRADIANCE LEVELS
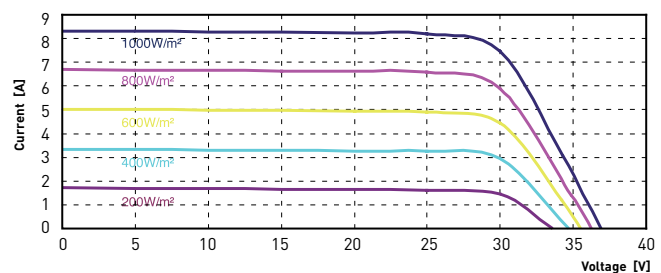
Above graphics according to LDK-220D-20

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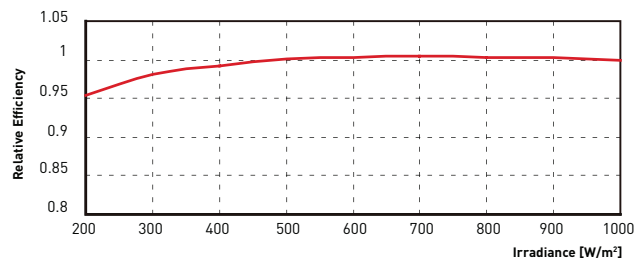
The typical relative change in module efficiency at an irradiance of 200W/m^2 in relation to 1000W/m^2 (both at 25 °C and AM 1.5 spectrum) is less than 6%

PACKING CONFIGURATION

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