180D-185D-190D-195D-200D-24(s)



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



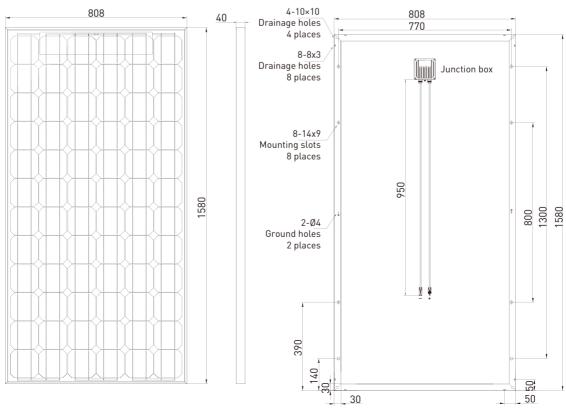














MONOCRYSTALLINE MODULES

ELECTRICAL CHARACTERISTICS (STC*)

TYPE	180D-24(s)	185D-24(s)	190D-24(s)	195D-24(s)	200D-24(s)
Nominal Output (Pmax) [Wp]	180	185	190	195	200
Voltage at Pmax (Vmp) [V]	35.0	35.5	36.0	36.4	36.9
Current at Pmax (Imp) [A]	5.16	5.23	5.30	5.37	5.44
Open Circuit Voltage (Voc) [V]	44.5	44.7	44.9	45.2	45.4
Short Circuit Current (Isc) [A]	5.57	5.63	5.69	5.74	5.80
Power Classification Range [Wp]	-0/+4.99	-0/+4.99	-0/+4.99	-0/+4.99	-0/+4.99
Tolerance on Nominal Output [%]	+/-3	+/-3	+/-3	+/-3	+/-3
Maximum System Voltage	IEC EN: 1000 V / UL: 600 V				
Cell Efficiency [%]	16.15	16.60	17.04	17.49	17.94
Module Efficiency [%]	14.10	14.49	14.88	15.27	15.67

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

ELECTRICAL PERFORMANCE AT NOCT

TYPE	180D-24(s)	185D-24(s)	190D-24(s)	195D-24(s)	200D-24(s)
Nominal Output (Pmax) [Wp]	131	134	138	141	145
Voltage at Pmax (Vmp) [V]	31.6	32.1	32.5	32.9	33.3
Current at Pmax (Imp) [A]	4.13	4.18	4.24	4.30	4.35
Open Circuit Voltage (Voc) [V]	41.1	41.3	41.4	41.7	41.9
Short Circuit Current (Isc) [A]	4.51	4.56	4.61	4.65	4.70

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

TEMPERATURE CHARACTERISTICS

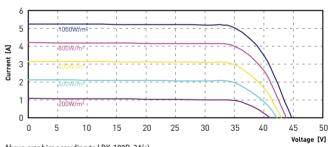
TYPE	LDK-D-24(s) Series	
NOCT**	45 +/-2 °C	
Temperature Coefficient of Pmax	-0.47 %/°C	
Temperature Coefficient of Voc	-0.34 %/°C	
Temperature Coefficient of Isc	0.06 %/°C	
Maximum Series Fuse Rating	20 A	
Operating Temperature	from -40 to +85 °C	
Storage Temperature	from -40 to +60 °C	

NOCT** (Nominal Operating Cell Temperature): irradiance 800 W/m², Air 20 °C, wind speed 1 m/s

MECHANICAL CHARACTERISTICS

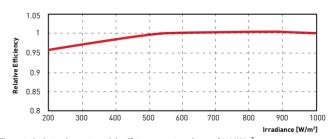
TYPE	LDK-D-24(s) Series			
Solar Cells	72 (6 x12) monocrystalline silicon solar cells 125 x 125 mm			
Front Glass	3.2 mm thick, tempered glass / AR coating glass			
Backsheet	TPT (Tedlar-PET-Tedlar) / BBF			
Encapsulant	EVA (ethylene vinyl acetate)			
Frame	Double-layer anodized aluminium alloy			
Diodes	6 (3 x 2 in parallel) serviceable Bypass Diodes			
Junction Box	IP65 rated			
Connectors	MC4 or compatible connectors			
Cables	Length: 950 mm / Section: 4.0 mm ²			
Dimensions	1580 x 808 x 40 mm / 62.20 x 31.81 x 1.57 in			
Weight	15.6 kg / 34.4 lbs			
Max. Load	Wind Load: 2400 Pa / Snow Load: 5400 Pa			

I-V CURVE AT DIFFERENT IRRADIANCE LEVELS



Above graphics according to LDK-180D-24(s)

PERFORMANCE AT LOW IRRADIANCE



The typical relative change in module efficiency at an irrandiance of $200\,W/m^2$ in relation to $1000\,W/m^2$ (both at $25\,^\circ$ C and AM 1.5 spectrum) is less than 6%

PACKING CONFIGURATION

TYPE	LDK-D-24(s) Series
Packing Configuration	25 pcs. / box
Quantity / Pallet	50 pcs. / pallet
Loading Capacity	700 pcs. / 40 ft. (High Cube Container)

LDK Solar reserves the right to make specifications changes without any prior notice. This data sheet complies with the EN 50380 requirements. V1 - February 2012 - © LDK Solar Limited. All rights reserved. E.&O.E.

