LDK SOLAR

POLYCRYSTALLINE MODULES

160P-165P-170P-175P-180P-185P-190P-24

160P WATT to 190P 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:

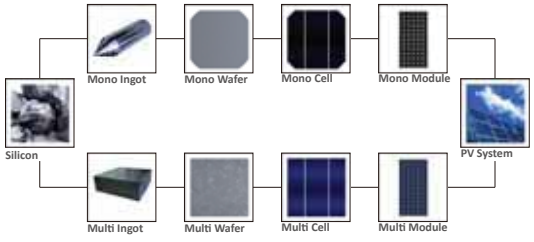
- IEC: IEC 61215, IEC 61730 (1&2), conformity to CE
- UL1703 2002/03/15 Ed:3 Rev:2004/06/30
- ULC/ORD-C1703-01 second edition 2001/01/01
- UL and Canadian standard for safety flat-plate

- 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



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POLYCRYSTALLINE MODULES

160P-165P-170P-175P-180P-185P-190P-24

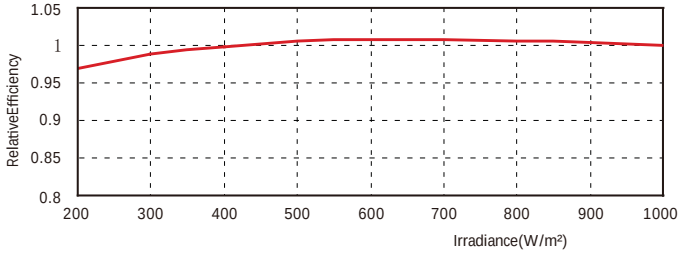
ELECTRIC CHARACTERISTICS (STC*)

Type	160P-24	165P-24	170P-24	175P-24	180P-24	185P-24	190P-24
Nominal Output (Pmax) [W]	160	165	170	175	180	185	190
Warranted Minimum Power [W]	155.2	160.05	164.9	169.75	174.6	179.45	184.3
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
Voltage at Pmax (Vmp) [V]	35.1	35.4	35.9	36.1	36.4	36.8	37.2
Current at Pmax (Imp) [A]	4.60	4.68	4.76	4.87	4.96	5.02	5.1
Open Circuit Voltage (Voc) [V]	43.2	43.6	44.0	44.3	44.6	44.9	45.1
Short Circuit Current (Isc) [A]	4.95	5.04	5.13	5.21	5.28	5.51	5.6
Maximum System Voltage	IEC: 1000 V / UL: 600 V						
Maximum Series Fuse Rating	10A						
Cell Efficiency [%]	14.66	15.12	15.58	16.04	16.49	16.95	17.41
Module Efficiency [%]	12.48	12.88	13.27	13.66	14.05	14.44	15.22

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

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%

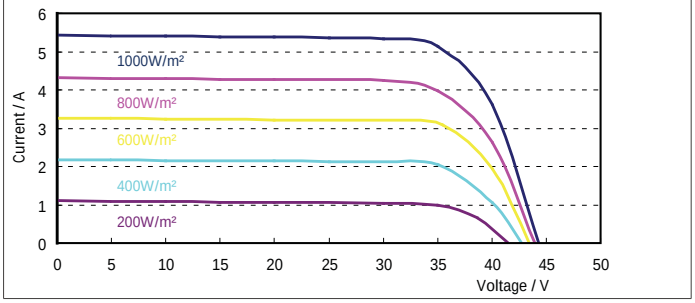


ELECTRICAL PERFORMANCE AT NOCT

Type	160P-24	165P-24	170P-24	175P-24	180P-24	185P-24	190P-24
Nominal Output (Pmax) [W]	116	120	123	127	130	134	138
Voltage at Pmax (Vmp) [V]	31.7	32.3	32.6	33.1	33.6	33.6	34.1
Current at Pmax (Imp) [A]	3.66	3.71	3.77	3.83	3.87	3.99	4.05
Open Circuit Voltage (Voc) [V]	39.8	40.1	40.5	40.8	41.1	41.3	41.5
Short Circuit Current (Isc) [A]	4.01	4.08	4.15	4.22	4.27	4.46	4.53

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

IV CURVE AT DIFFERENT IRRADIANCE LEVELS



Above graphics according to LDK-175P-24

TEMPERATURE CHARACTERISTICS

Type	LDK-P-24 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

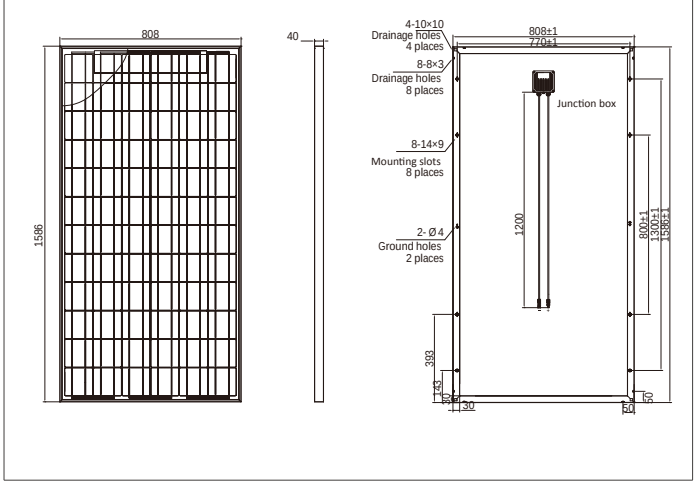
*NOCT**: Nominal Operation Cell Temperature Sun 800W/m²; Air 20°C; Wind speed 1m/s*

MECHANICAL CHARACTERISTICS

Type	LDK-P-24 Series
Solar Cells	72(6x12) polycrystalline cells 125mm
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 mm²
Dimension	1586 x 808 x 40 mm / 62.4 x 31.8 x 1.6 inches
Weight	15.6 Kg / 34.4 lbs
Max.Load	Certified to 5400 Pa

DIMENSIONS

Front View | Back View



PACKING CONFIGURATION

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

Partner:

Contact Us:
module.sales@ldksolar.com
www.ldksolar.com