

# MULTICRYSTALLINE MODULES

## LDK-290P-24 Professional Series



LDK-290P-24, LDK-295P-24, LDK-300P-24



### 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 W positive power tolerance

### WARRANTIES

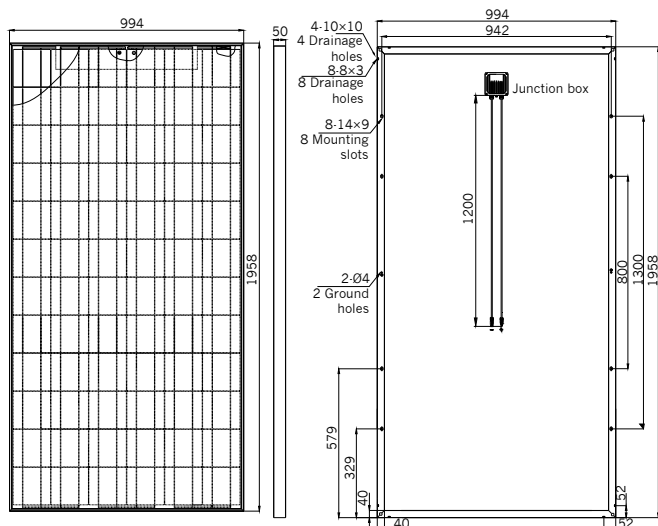
- 10 years for product defects in materials & workmanship
- #### Linear Power Warranty

- Year 1: power output not below 97% of Nominal Output
- From year 2 up to year 25: power output yearly decrease of 0.7%
- Year 25: power output not below 80.2% of Nominal Output

### CERTIFICATES

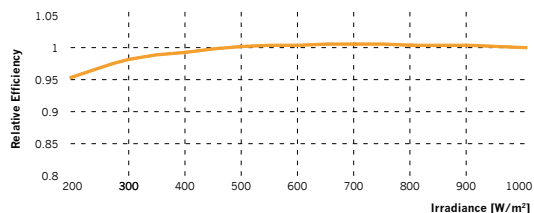
- IEC EN 61215, IEC EN 61730-1-2, CE Conformity
- UL 1703 2002/03/15 Ed:3 Rev:2008/04/08
- ULC/ORD-C1703-01 second edition 2001/01/01
- UL and Canadian standard for safety flat-plate
- CEC Listed: modules are eligible for California rebates
- MCS The Microgeneration Certification Scheme UK
- ISO 9001:2008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

### DIMENSIONS



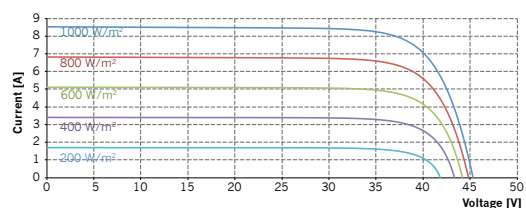
Tolerance of length and width dimensions is  $\pm 2$  mm

### 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 5%

### I-V CURVE AT DIFFERENT IRRADIANCE LEVELS



Above graphics according to LDK-295P-24

# MULTICRYSTALLINE MODULES

## LDK-290P-24 Professional Series



### ELECTRIC CHARACTERISTICS (STC\*)

TYPE	290P-24	295P-24	300P-24
Nominal Power (Pmax) [W]	290	295	300
Voltage at Pmax (Vmp) [V]	36.1	36.6	37.0
Current at Pmax (Imp) [A]	8.04	8.08	8.12
Open Circuit Voltage (Voc) [V]	45.1	45.3	45.6
Short Circuit Current (Isc) [A]	8.51	8.54	8.58
Tolerance on Nominal Power [W]	-0/+5	-0/+5	-0/+5
Maximum System Voltage	IEC EN: 1000 V / UL: 600 V		
Cell Efficiency [%]	16.55	16.84	17.12
Module Efficiency [%]	14.91	15.16	15.41

STC\* (Standard Test Conditions): Irradiance 1000 W/m<sup>2</sup>, Module Temperature 25 °C, Air Mass 1.5  
Best in Class AAA solar simulator (IEC 60904-9) used, power measurement uncertainty is within +/-3%

### ELECTRICAL PERFORMANCE AT NOCT

TYPE	290P-24	295P-24	300P-24
Power Output (Pmax) [W]	211	215	218
Voltage at Pmax (Vmp) [V]	32.8	33.3	33.6
Current at Pmax (Imp) [A]	6.43	6.46	6.50
Open Circuit Voltage (Voc) [V]	41.7	41.9	42.2
Short Circuit Current (Isc) [A]	6.89	6.91	6.95

NOCT: Irradiance 800 W/m<sup>2</sup>, Module Temperature 45±2°C, Wind Speed 1 m/s  
Best in Class AAA solar simulator (IEC 60904-9) used, power measurement uncertainty is within +/-3%

### TEMPERATURE CHARACTERISTICS

TYPE	LDK-P-24 Series
NOCT**	45±2°C
Temperature Coefficient of Pmax	-0.45% / °C
Temperature Coefficient of Voc	-0.33% / °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<sup>2</sup>, Air 20 °C, Wind Speed 1 m/s

### PACKING CONFIGURATION

TYPE	LDK-P-24 Series
Packing Configuration	20 pcs. / box
Quantity / Pallet	40 pcs. / pallet
Loading Capacity	440 pcs. / 40 ft (High Cube Container)

### MECHANICAL CHARACTERISTICS

TYPE	LDK-P-24 Series
Solar Cells	72 (6x12) multicrystalline silicon solar cells 156 x 156 mm
Front Glass	4.0 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: 1200 mm / Section: 4.0 mm <sup>2</sup>
Dimensions	1958 x 994 x 50 mm / 77.09 x 39.13 x 1.97 in
Weight	28.3 kg / 62.4 lbs
Max. Load	Wind Load: 2400 Pa / Snow Load: 5400 Pa

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

Partner