

# DIAMOND

PV MODULES WITH X-FACTOR

**MONOCRYSTALLINE  
MODULES**

**60 CELLS**

**290Wp-310Wp  
POWER OUTPUT RANGE**

Founded in 1997, Alpex Solar Pvt. Ltd. is a multi-location, multi-business enterprise with diverse business activities consisting of:

- » Solar Panel Manufacturing
- » International Trading

Headquartered in Greater Noida, India, the state of the art offices are located in New Delhi, Mumbai, Tirupur, Jaipur, Ludhiana, Surat, Kolkata, Seoul and Sydney.

Our world class manufacturing units are located in Nalagarh (HP) and Greater Noida (UP). These fully automatic plants have a manufacturing capacity of 450 MW slated to go up to 1 GW soon. With a strong team of 350 professionals/workers and manufacturing experience of more than 10 years, we aim to become a significant global player in the field of highly specialised high power photovoltaic modules which are not only world class but also most cost effective.



ISO 9001 : 2008 • ISO 14001 : 2004  
OHSAS 18001 : 2007 CERTIFIED COMPANY (100% EOU)



**Xtra Long Life**



**Xtremely Compact Size**



**Xtra Energy / Power**

**FACTOR**

First indian manufacturer to make 4 BB & 5 BB modules.

First indian manufacturer to make glass-glass modules.

Super BOM and super efficient cell for super performance.

Wakes up early, sleeps late.

Positive tolerance & PID free with RFID.

MNRE / IEC approved.

Rated No. 7 in photon lab test report Germany.

Fully automated robotic plants.



SOLAR POWER PLANTS

SOLAR PV PANELS

SOLAR PUMPS

SOLAR EPC

SOLAR ELECTRICITY  
(RESCO)

# DIAMOND

## PV MODULES WITH X-FACTOR

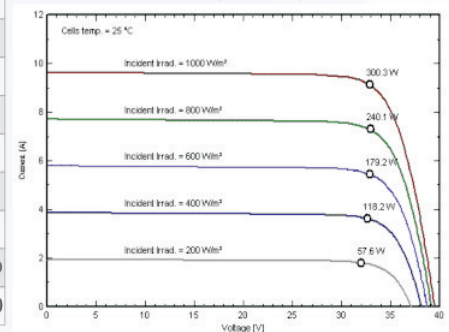
290Wp - 310Wp Mono Crystalline-60 Cells



### Electrical Specifications

Model	ALP-290	ALP-295	ALP-300	ALP-305	ALP-310
Peak Power (Pmax)	290Wp	295Wp	300Wp	305Wp	310Wp
Rated Voltage (Vmp)	32.43V	32.75V	33.17V	33.52V	33.92V
Rated Current (Imp)	8.95A	9.01A	9.05A	9.10A	9.14A
Open Circuit Voltage (V)	39.02V	39.30V	39.50V	39.90V	40.20V
Short Circuit Current (I)	9.55A	9.61A	9.64A	9.67A	9.69A
Module Efficiency (%)	17.66	17.96	18.27	18.56	18.87
Tolerance	0~+4.99Wp	0~+4.99Wp	0~+4.99Wp	0~+4.99Wp	0~+4.99Wp
Maximum System Voltage (V)	1000/1500	1000/1500	1000/1500	1000/1500	1000/1500

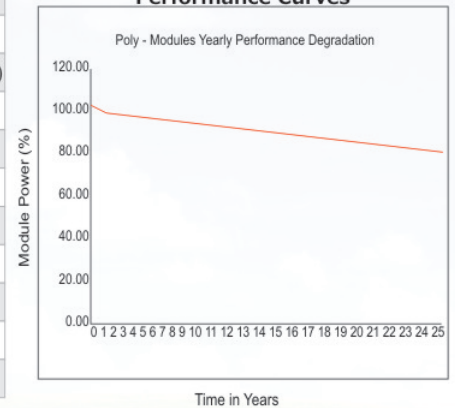
IV Curves for 300 Wp Monocrystalline Module



### Mechanical Specifications

Length x Width x Height	1656 x 992 x 35mm
Weight	18.10 kg
Junction Box	IP 65/67 rated with 3 Bypass Diodes Cables & Connectors)
Cable & Connectors	1000 mm (MC4 Compatible)
Application Class	Class A (Safety class II)
Superstrate	High transmission, low iron tempered glass, AR Coated
Cell Encapsulant	EVA (Ethylene Vinyl Acetate)
Back Sheet	Multilayered Back sheet (white colour)
Frame	Anodized Aluminium frame
Mechanical Load test	5400Pa
Maximum Series Fuses Rating	15A

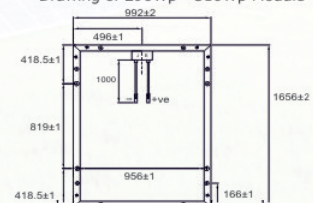
### Performance Curves



### Temperature Coefficient

NOCT*	46°C ± 2°C
Coefficient Power (%/°C)	-0.39%/°C
Coefficient Voltage (%/°C)	-0.31%/°C
Coefficient Current (%/°C)	0.05%/°C
Temperature Range	-40°C to 85°C

Drawing of 290Wp - 310Wp Module



### Warranty and Certifications

Performance*	Power output of 90% at the end of 10 Years and 80% at the end 25 Years
Approved Certificates	IEC 61215 Ed2, IEC 61730, IEC 61701, IEC 62716, UI1703, IEC 62804**

\* Refer to Alpex Modules Warranty Document  
\*\* IEC 62804 Standard still not enforced

Alpex Solar (A Renewable Energy Division of Alpex Exports Pvt. Ltd.)

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