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**Solar Panel Guide**

**Specification Data Sheet**

Learn more at [energypal.com/best-solar-panels-for-homes](https://energypal.com/best-solar-panels-for-homes)

# DIAMONDflex

## PV MODULES WITH X-FACTOR

50Wp- 160Wp Flexible Poly Crystalline



### Electrical Specifications

Model	ALP-FP-50	ALP-FP-80	ALP-FP-110	ALP-FP-160S	ALP-FP-160R
Peak Power (Pmax)	50Wp	80Wp	110Wp	160Wp	160Wp
Rated Voltage (Vmp)	17.70 V	17.70 V	17.70 V	17.70 V	17.70 V
Rated Current (Imp)	2.85 A	4.55 A	6.22 A	9.05 A	9.05 A
Open Circuit Voltage (Voc)	21.40 V	21.40 V	21.40 V	21.40 V	21.40 V
Short Circuit Current (Isc)	3.10 A	4.85 A	6.75 A	9.45 A	9.45 A
Module Efficiency (%)	11.61	13.20	14.49	15.38	14.14
Tolerance	0~+4.99 Wp	0~+4.99 Wp	0~+4.99 Wp	0~+4.99 Wp	0~+4.99 Wp
Maximum System Voltage (Vdc)	50V	50V	50V	50V	50V

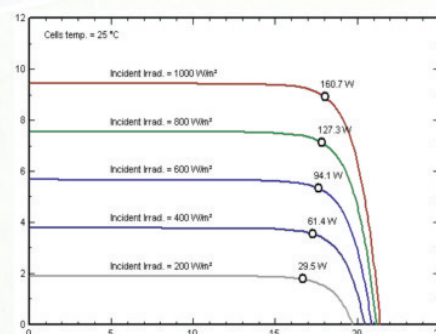
### Mechanical Specifications

Cell Matrix	4X9	4X9	4X9	6X6	4X9
Module Size (L) x (W) ± 2 mm	590x730 mm	830x730 mm	1040x730 mm	1040x1000 mm	1550x730 mm
Module Size (L) x (W) ± .07 in	23.23x28.74 in	32.68x28.74 in	40.94x28.74 in	40.94x39.37 in	61.02x28.74 in
Module Thickness at Cell Level	3 mm	3 mm	3 mm	3 mm	3 mm
Max Thickness at J-Box Level	22 mm	22 mm	22 mm	22 mm	22 mm
Weight Kg / lbs	1.15 kg / 2.54 lbs	1.56 kg / 3.44 lbs	1.92 kg / 4.23 lbs	2.60kg / 5.73 lbs	1.8 kg / 6.17 lbs
Bend Angle (Degree)	Upto 30°	Upto 30°	Upto 30°	Upto 30°	Upto 30°
Waterproof	Yes	Yes	Yes	Yes	Yes
Frame	Frameless	Frameless	Frameless	Frameless	Frameless
Junction Box	2.5mm <sup>2</sup> Cable with Mc4 Connectors	2.5mm <sup>2</sup> Cable with Mc4 Connectors	2.5mm <sup>2</sup> Cable with Mc4 Connectors	4mm <sup>2</sup> Cable with Mc4 Connectors	4mm <sup>2</sup> Cable with Mc4 Connectors

### Temperature Coefficient

Normal Operating Cell Temperature (NOCT)	46°C ± 2°C
Temperature Coefficient of Power	-0.39 % / °C
Temperature Coefficient of Voltage	-0.31 % / °C
Temperature Coefficient of Current	0.05 % / °C

### Typical IV Curves for 160Wp Model



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

Head Office / Factory :

Plot No. I- 25-26, Site-5, Surajpur Industrial Area, Kasna  
Greater Noida -201306, Gautam Budh Nagar (UP)

Factory :

Village Berson, Post Manjholi,  
Nalagarh - 174101, Solan (HP)

Toll Free: 1800 11 2573

Email: [info@alpexonline.com](mailto:info@alpexonline.com)

Website: [www.alpexsolar.com](http://www.alpexsolar.com)



# :DIAMONDflex

PV MODULES WITH X-FACTOR



## FLEXIBLE POLY CRYSTALLINE MODULES

**50Wp-160Wp**  
POWER OUTPUT RANGE

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

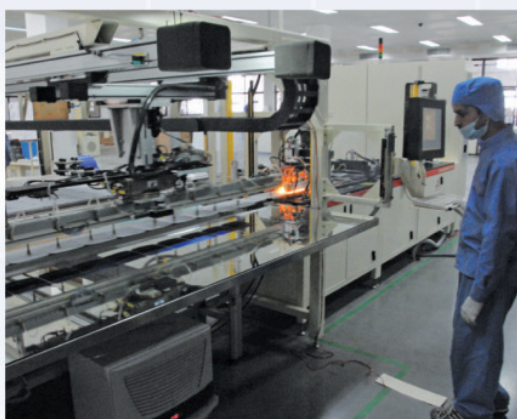
- » Solar Panel Manufacturing
- » International Trading

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**



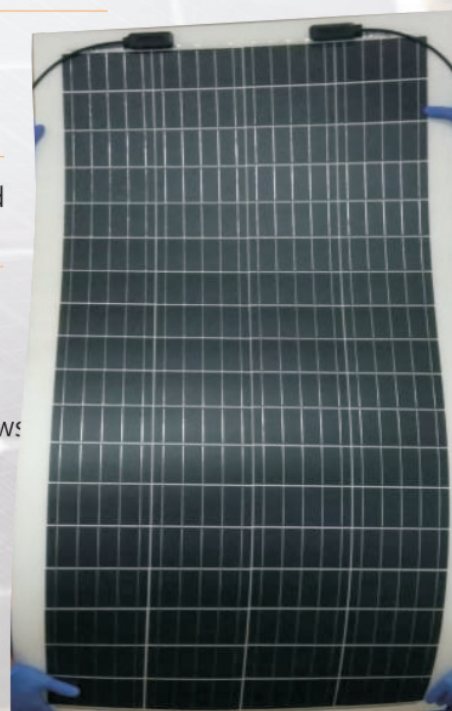
**Xtra Energy / Power**



**Xtremely Compact Size**



- Manufactured in fully automatic robotic plant.
- Fully waterproof, ideal for boats, caravans, motorhomes, camping. Marine grade and anti - corrosive.
- Lightweight PV module with onboard solar cable and MC4 connector.
- Completely glass and aluminium frame free module.
- Low system installation costs, can be installed with adhesive or screws
- Super BOM for super performance.
- Flexible upto 30 degree.



SOLAR POWER PLANTS

SOLAR PV PANELS

SOLAR PUMPS

SOLAR EPC

SOLAR ELECTRICITY  
(RESCO)