

**For a Free Quote:**

Web: [EnergyPal.com/solar](http://EnergyPal.com/solar)

Call: 1-800-990-3725

Email: [contact@energypal.com](mailto:contact@energypal.com)

# EnergyPal

## **Solar Panel Guide Specification Data Sheet**

**Full Solar Co., Ltd.**

**F-120-150P**

**F-135P**

Also available on the web at  
[EnergyPal.com/full-solar-co-ltd-solar-panels/f-135p](http://EnergyPal.com/full-solar-co-ltd-solar-panels/f-135p)

## Poly-Crystalline Solar PV Module 36 Cells Series (156MMX156MM)



### Performance

- ♦ Water resistant junction box with bypass diode and high strength polymer sheet on module's rear ensures module is sealed from moisture and mechanical damage
- ♦ High transmissivity low-iron toughened glass
- ♦ Excellent week light performance
- ♦ Unique drainage hole design and aluminum frame

### Quality and Reliability

- ♦ Superior reliability with guaranteed +/-3% power output tolerance
- ♦ 10 years warranty on materials and workmanship,
- ♦ 25 years linear power warranty, 97% in the first year, 91% in 10<sup>th</sup> year, and ending with 80% in 25<sup>th</sup> year
- ♦ Cells are individually tested, characterized and modulated prior to interconnection
- ♦ Test and produce standard: IEC61215, IEC61730, ISO 9001:2008, ISO14001:2004, OHSAS18001:2007, TIS18001:2011, TIS1843:2553, TIS2580:2555

## Electrical Characteristics

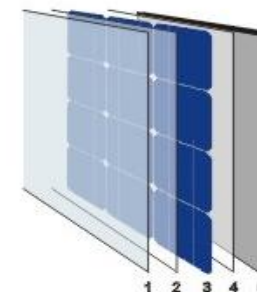
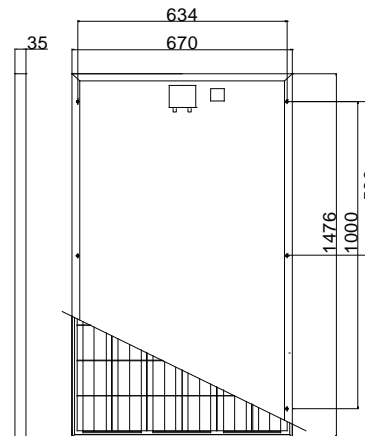
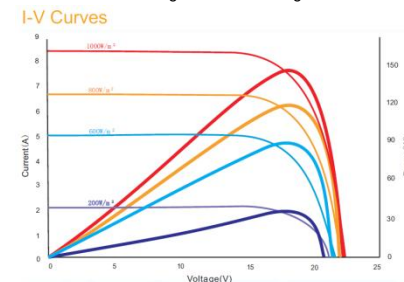
Specification	F-120P	F-125P	F-130P	F-135P	F-140P	F-145P	F-150P
Rating power at STC (Wp)	120W	125W	130W	135W	140W	145W	150W
Open circuit voltage (Voc)	21.7V	22.0V	22.2V	22.25V	22.4V	22.6V	22.7V
Short circuit current (Isc)	7.45A	7.83A	8.09A	8.21A	8.33A	8.49A	8.74A
Rated voltage (Vm)	17.2V	17.4V	17.4V	17.5V	17.6V	17.8V	17.9V
Rated current (Im)	7.00A	7.19A	7.48A	7.73A	7.95A	8.16A	8.38A
Module efficiency (%)	12.13%	12.64%	13.14%	13.65%	14.16%	14.66%	15.17%
Power tolerance	±3%						
Temperature coefficient of Pm	-0.47%/K						
Temperature coefficient of Isc	+0.038%/K						
Temperature coefficient of Voc	-0.34%/K						
Maximum system voltage	DC600v (UL) / DC1000V (IEC)						

All technical data at STC: AM1.5; 1000W/m<sup>2</sup>; 25°C

## Mechanical Characteristics

Solar Cell	Polycrystalline 156 x 156 mm (6 inches)
No. of cells	36 (4X9)
Nominal Operating Cell Temperature (NOCT)	46 ± 2 °C
Operation temperature	From -40 to + 85°C
Typical Application	12V DC
Max series fuse rating	10A
Max wind resistance	2400Pa
Surface max. load capacity	5400Pa
Weight	10.6kg
Dimension	1476X670X35MM

Current-Voltage & Power-Voltage Curve (145-12)



1. Tempered glass
2. EVA
3. Cells
4. EVA
5. Back sheet