



ESF 150PA

High Efficiency, High Quality PV Module

Electrical Characteristics	ESF 150PA
Maximum power (Pmax)	150W
Voltage at Pmax (Vmp)	17.6V
Current at Pmax (Imp)	8.54A
Open-circuit voltage (Voc)	22.0V
Short-circuit current (Isc)	9.09A
Temperature coefficient of Voc	$-(0.40 \pm 0.05)\%/^{\circ}\text{C}$
Temperature coefficient of Isc	$(0.065 \pm 0.01)\%/^{\circ}\text{C}$
Temperature coefficient of power	$-(0.5 \pm 0.05)\%/^{\circ}\text{C}$
NOCT (Air 20°C; Sun 0.8kW/m ² wind 1m/s)	47±2°C
Operating temperature	-40°C to 85°C
Maximum system voltage	600V DC
Power tolerance	± 3%
Cells	multicrystalline silicon solar cell
No. of cells and connections	36(4X9)
Module Dimension	1482mm[58.35in.]x670mm[26.38in.]x35mm[1.38in.]
Weight	11.1kg[24.42lbs]

* STC: Irradiance 1000W/m², AM1.5 spectrum, module temperature 25°C

* Specifications are subject to change without notice at any time.



Key Features:

- High module efficiency and stable power output
- Based on leading process technology
- Outstanding electrical performance under high temperature conditions or low irradiance conditions
- Easy of installation and all-weather applications
- 5 years product warranty(materials and workmanship)
- 20 years module power output warranty
- Peak power of single module is guaranteed in +3% power tolerance
- Strong framed module, passing loaded test of 5400 Pa (IEC61215 2nd)
- The manufacture is certified for ISO 9001:2008

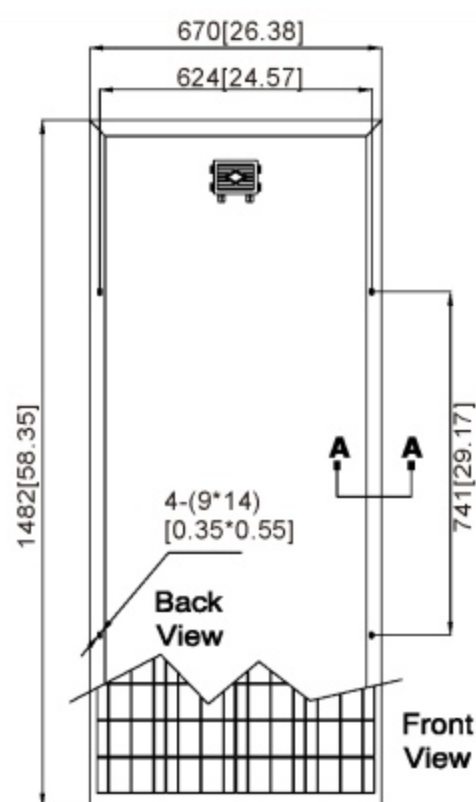
Product's Guarantee

- 15 years module power output no less 90%
- 20 years module power output no less 80%

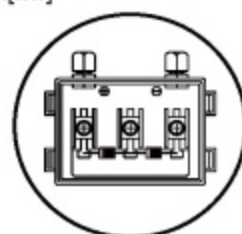
Applications

- Off grid residential roof-tops
- Off grid commercial/industrial roof-tops
- Rural area applications
- Solar power system
- Other off-grid applications

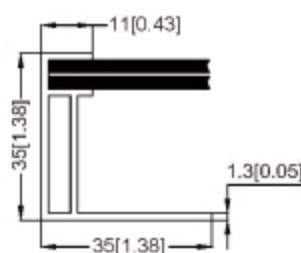
Module Diagram



Dimensions in brackets are in inches.
Un-bracketed dimensions are in millimeters.
Unit:mm[in.]



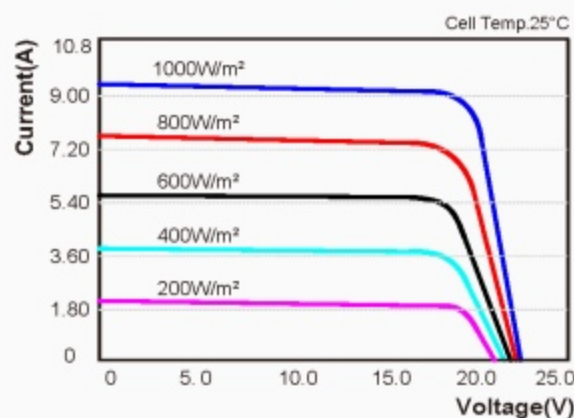
Junction Box
Top View (Lid open)



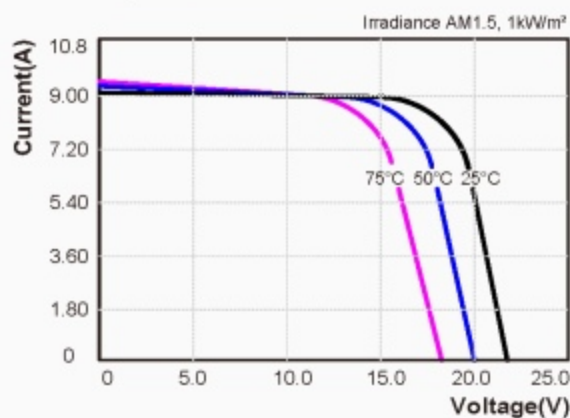
Section A-A

I-V Curves

I-V Curves of PV module ESF150PA



I-V Curves of PV module ESF150PA at various cell temperatures



EASTECH ELECTRIC S.A.U.