

Complete the efficiency at 100, 75,50,25

$$\frac{\text{Output}}{\text{Input}} = \frac{\text{voltage} \cdot I_{\text{mpp}} [\text{w}]}{G \cdot A}$$

G irradiance = solar power per w/m²
 Area of solar panel is 18.8cmx25xm (0.18mx0.25m)

Compare results

Complete the fill factor 100, 75,50,25- Compare results

4 graphs 100, 75,50,25 with all the data in a scatter graph

R (Ω)	V (V)	I (mA)	P (mW)	Efficiency	Fill factor
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theroically explanation and real life measurements

Work out all relations between the different irradiance at 100,75,50,25

Why the irradiance drops the isc reduces in line

Give different examples of this in real life solutions using simulations

Why does the voc stay constant?

From 100 irradiance

What is the short circuit current and open voltage from data
 What are the maximum power points I_{mpp} V_{mpp} P_{mpp}

All calculations and formulas are needed

Inc a scatter graph for 100, 75,50,25 for VP graph

Concusion the results from the 100,75,50,25 graph of the voc isc

Data plate of solar panel

Raed power at STC	5W	100w/m ²	Am 1.5	25 at decdegrees
Power Tolerance	+ - 3%			
Max System Voltage	600v			
Weight 0.8kg				
Dimensions	188x250x18mm			
Voltage at open circuit VOC	21.6v			
Current at max Power IMP	0.28A			
Short circuit ISC	0.3A			
Data Sheet Irradiance				

