

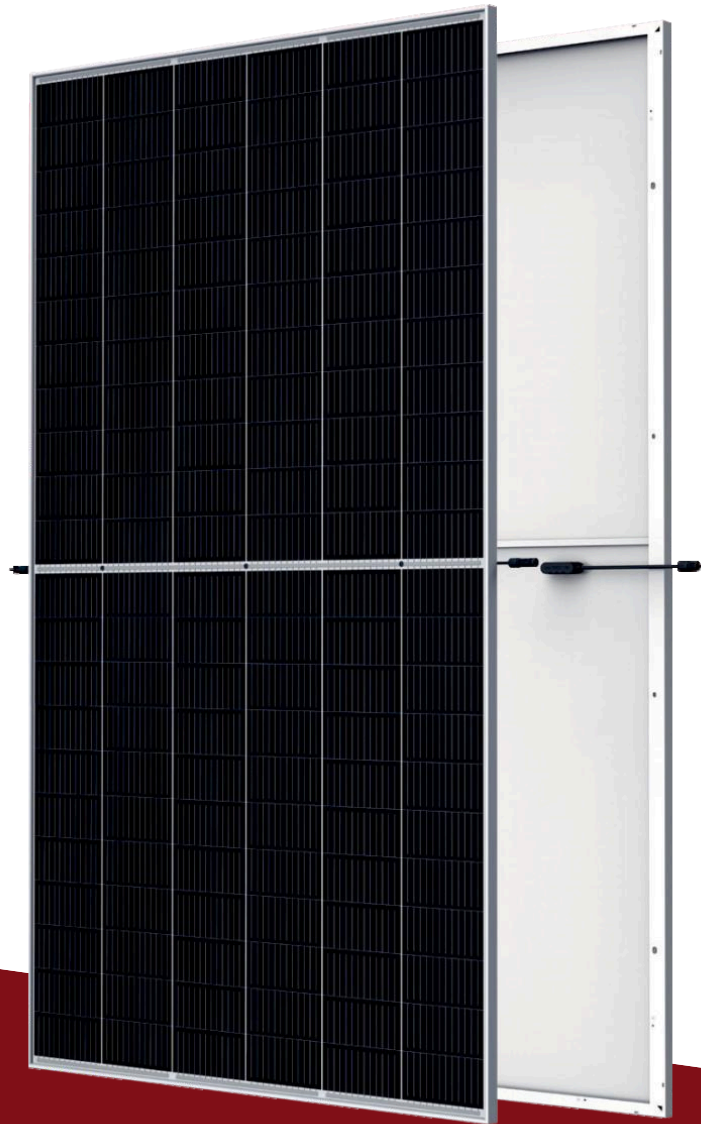
**volta**

**ELECTRIC**

Unlimited Power

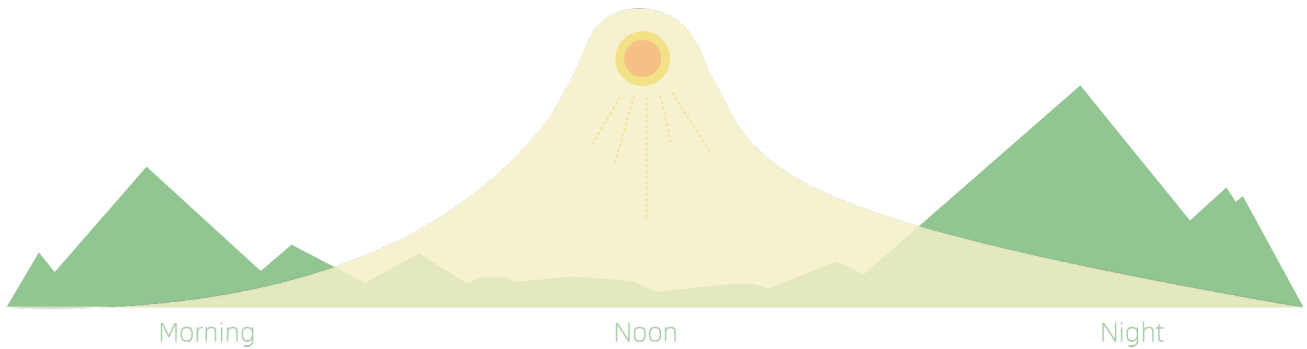
# Solar Panel

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Designed in AZ, USA  
Manufactured in Qatar

## Solar Energy Flow



### **Morning:**

Minimal energy production, high energy demand.

At sunrise the solar panels start

to power generation, though not enough to cover the energy needs.

The battery will fill the gap with the stored energy.

### **Midday:**

Highest energy production, low energy demand.

In the day time, the energy generated from the solar panels is at its peak.

But energy consumption is low so that most of the generated energy is stored in the Battery

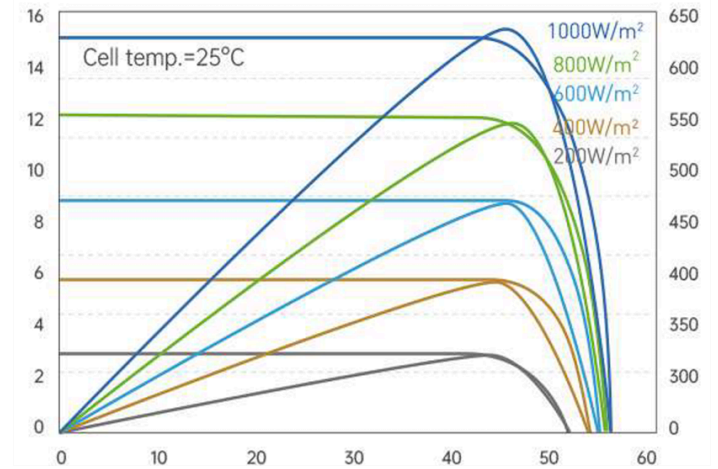
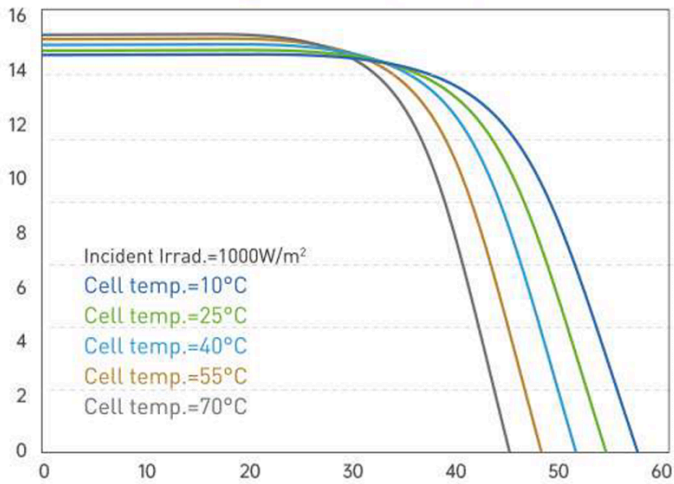
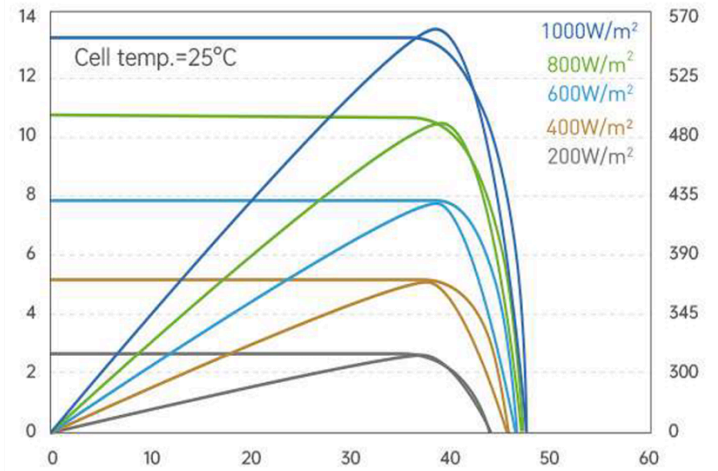
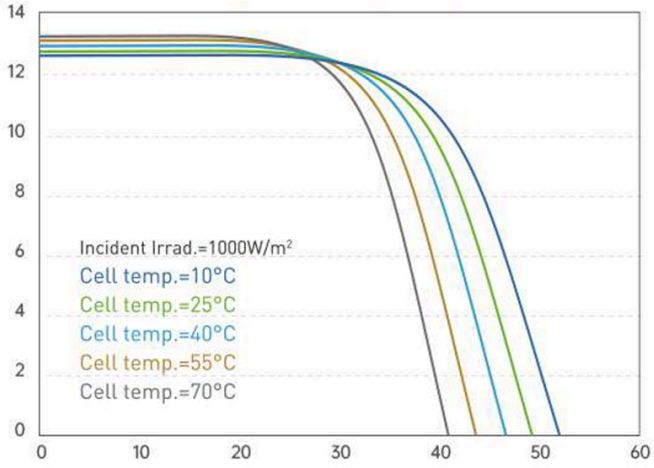
### **Evening:**

Low energy production, high energy demand.

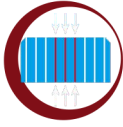
The highest daily energy consumption & solar panels produce little or no energy.

The battery will cover the energy needs with the energy storage.

# I-V Curves



## Product details



### Half Cell

The power of Half-cell solar panel increases, and the hot spot temperature reduces because of lower working current



### Positive Tolerance

Positive tolerance of up to 0~+5W delivers higher outputs reliability



### High PID Resistant

Advanced cell technology and qualified materials lead to high PID resistant



### Current Sorting Process

System output maximized by reducing mismatch losses up to 2% with modules sorted & packaged by amperage



### Extended Wind and Snow

load tests

Module certified to withstand extreme wind (2400 Pascal) and snow loads(5400 Pascal)

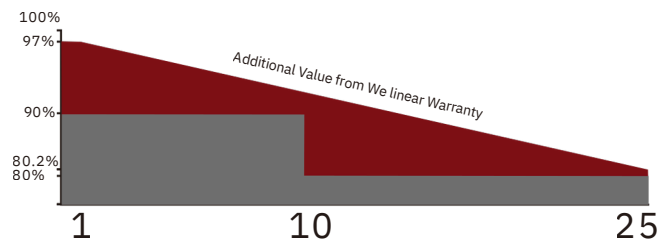


1500V

### 1500V

Backsheet and junction box supporting 1500V system

Industry-Leading Warranty Based on Nominal Power



\* 25-year linear power output warranty \* 10-year product warranty

\* The first year attenuation  $\leq 2\%$

\* MBB solar cells, Low resistance loss and higher conversion efficiency

\* Double EL test before and after lamination, highly control product defects

\* Solar panel classified by current, to improve system performance

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Different models

<b>550 W</b>	<b>PARAMETER</b>	<b>VALUE</b>
	Maximum Power (Pmax)	550 W
	Rated Power Maximum Voltage (Vmp)	41.00 V
	Rated Power Maximum Current (Imp)	13.45 A
	Open Circuit Voltage (Voc)	49.70 V
	Short Circuit Current (Isc)	14.03 A
	Module Efficiency	21.3 %
	Working Temperature	-40 ~ +85 °C
	Maximum System Voltage	1500V DC (IEC)
	Power Tolerance	0 ~ +5W
	Weight	28.3 kg
Dimensions	2278x1134x35 mm	

<b>635 W</b>	<b>PARAMETER</b>	<b>VALUE</b>
	Maximum Power (Pmax)	635 W
	Rated Power Maximum Voltage (Vmp)	46.62 V
	Rated Power Maximum Current (Imp)	13.68 A
	Open Circuit Voltage (Voc)	56.87 V
	Short Circuit Current (Isc)	14.31 A
	Module Efficiency	22.7 %
	Working Temperature	-40 ~ +85 °C
	Maximum System Voltage	1500V DC (IEC)
	Power Tolerance	0 ~ +5W
	Weight	28.3 kg
Dimensions	2278x1134x35 mm	

