

## Product Specifications 156mm pseudo square Mono Crystalline 3 BUSBAR Solar Cells.

### 1. Highlights:

- ✓ Narrow cell banding offers best cell to module wattage realization.
- ✓ 100% grading on "Peak Power".
- ✓ 100% check on visual appearance.
- ✓ Each cell produced at our facility undergoes a series of through quality test.
- ✓ Free from micro cracks.
- ✓ Reference edge on both faces for easier orientation.

### 2. Cell Characteristics: General

- 2.1 Type of cell : Mono crystalline
- 2.2 Geometry : Pseudo square

### 3. Cell Characteristics: Mechanical

- 3.1 Length : 156.0 ± 0.5 mm
- 3.2 Width : 156.0 ± 0.5 mm
- 3.3 Diagonal length /Corner dia : 200.0 ± 0.5 / 201.0±0.5 mm
- 3.4 Nominal surface area : 238.95 cm<sup>2</sup> / 239.30 cm<sup>2</sup>
- 3.5 Accuracy of angles : 90° ± 0.3°
- 3.6 Thickness : 200 ± 30 (or) 180 ±30 μm
- 3.7 Maximum bow : < 1.5 mm
- 3.8 Bus bar width (Front) : 1.5 mm
- 3.9 Continuous Pad width (Back) : 3.5 mm
- 3.10 Distance between bus bars : 52.0 mm (from center to center)

### 4. Cell Characteristics: Visual

- 4.1 A.R. coating : Silicon nitride
- 4.2 Back side surface : Aluminum
- 4.3 Bus bar material front : Silver
- 4.4 Bus bar material back : Silver Aluminum

## 5. Cell Characteristics: Electrical

Cells are graded at Peak power with 36 mW banding, the typical grading criteria bin is given below,

### 5.1 Wattage Table



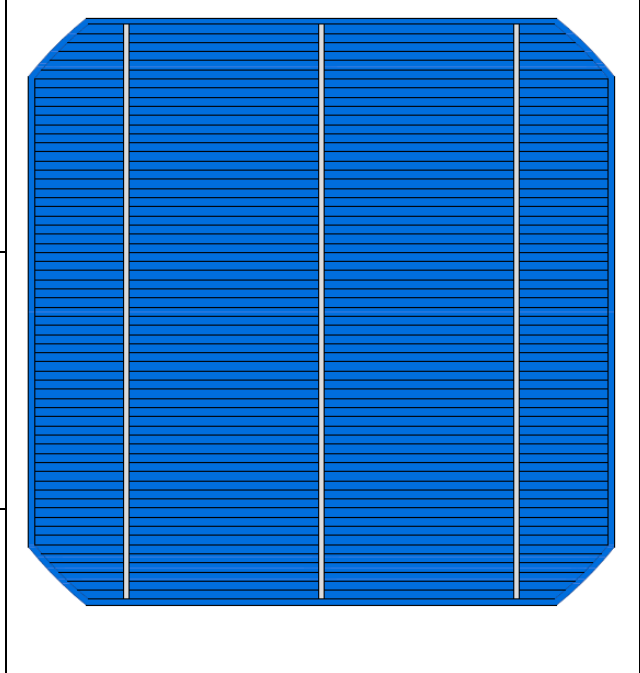


Efficiency %	Peak Power	Typical Parameters				
$\eta$ [%]	WATTS – [W]	$I_{MPP}$ [A]	$V_{MPP}$ [V]	$I_{SC}$ [A]	$V_{OC}$ [V]	FF [%]
17.61	<b>4.210</b>	8.090	0.521	8.594	0.614	79.3
17.46	<b>4.174</b>	8.083	0.520	8.580	0.612	79.2
17.31	<b>4.138</b>	8.060	0.514	8.569	0.611	79.1
17.16	<b>4.102</b>	8.020	0.513	8.530	0.610	79.1
17.01	<b>4.066</b>	7.880	0.516	8.448	0.613	78.7
16.86	<b>4.031</b>	7.780	0.515	8.404	0.613	78.6
16.71	<b>3.995</b>	7.770	0.514	8.356	0.611	78.5
16.56	<b>3.959</b>	7.720	0.513	8.301	0.611	78.4
16.41	<b>3.923</b>	7.660	0.512	8.260	0.610	78.3

Note: Parameters specified, are at standard test condition STC, 25°C Ambient, 100 mW/cm<sup>2</sup> irradiance.

- 5.2 Shunt Resistance : Greater than 15 ohms at-12V  
 I. Method of measurement : Dark IV
- 5.3 Polarity : Front negative, back positive
- 5.4 Temperature Coefficient
- A. Open circuit Voltage ( $dV_{OC}/dt$ ) : -2.271 mV/K (- 0.379% of  $V_{oc}/K$ )
- B. Short circuit current ( $dI_{SC}/dt$ ) : +2.28 mA/K (+0.0396% of  $I_{sc}/K$ )
- C. Fill factor ( $dV_{FF}/dt$ ) : -0.121 %/K
- D. Peak Power : -0.48456% / deg K



**6. Packing:**

 <p><b>Figure. A</b></p>	 <p><b>Figure.B</b></p>	
 <p><b>Figure.C</b></p>	 <p><b>Figure.D</b></p>	
<p>Figure. A : 100 Cells Bunch          Figure. B : 800 Cells in one Small Box          Figure. C : 19200 Cells in one Wooden Box          Figure. D : Transit monitoring</p>		

**7. Cell Drawing:**

