

# POLYCRYSTALLINE SOLAR PANEL

## Designed For High Performance

Polycrystalline solar panels consist of multiple photovoltaic cells, and each cell contains silicon crystals. They are a slice cut from a block of silicon, consisting of a number of crystals. These crystals make the panels function like a semiconductor and thus generate electricity. They do not require the placement and shaping of each crystal and therefore produce less waste.



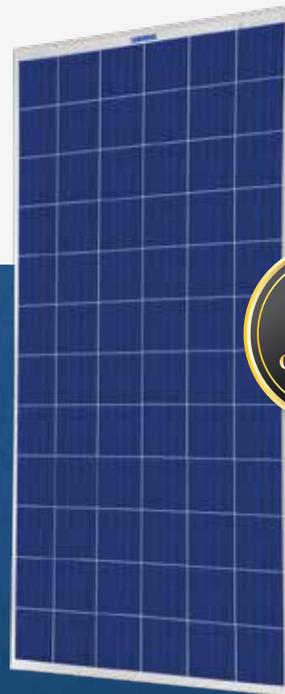
25 Years  
Performance Warranty



5 & 12 Years\*  
Product Warranty



Enlisted under  
ALMM Order



### Excellent Low-light Performance

Built with high quality glass and solar cell surface coating, especially for performance in low-light conditions.



### Resilience to Extreme Weather

The robust waterproof, corrosion and torsion resistant design offers protection against wind and snow.



### Safety and Protection

Designed to eliminate power loss owing to stray currents



### Advance EVA Encapsulation

Designed with multi layer EVA (ethyl vinyl acetate) encapsulation for better module protection.



### Best in Class Efficiency

Innovative cell technology ensures optimum solar power generation providing high value for money.

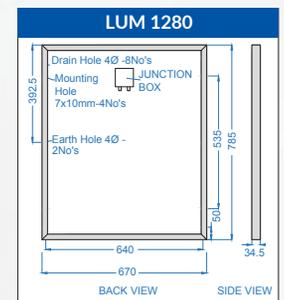
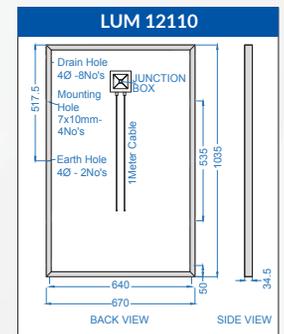
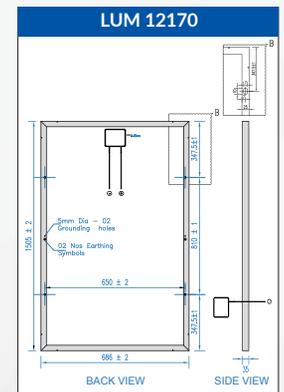
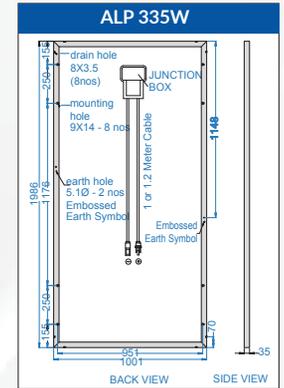
## Electrical Parameters @ STC#

Model ALMM Reference Model	LUM 1240	LUM 1280	LUM 12110	LUM 12170	ALP 335W
Cell Type	Poly	Poly	Poly	Poly	Poly
No. of Cells	36	36	36	36	72
Peak Power P <sub>Max</sub> (Wp)	40	80	110	170	335
Rated Module Voltage (V)	12	12	12	12	24
Maximum Power Voltage V <sub>mp</sub> (V)	18	18	18.15	18.86	38.08
Maximum Power Current I <sub>mp</sub> (A)	2.23	4.4	6.07	9.02	8.80
Open Circuit Voltage V <sub>oc</sub> (V)	22	22	22.10	23.01	46.02
Short Circuit Current I <sub>sc</sub> (A)	2.42	4.8	6.35	9.61	9.43
Module Efficiency (%)	13.72%	15.21%	15.50%	16.47%	16.85%
Maximum System Voltage (V)	600V	600V	600V	600V	1500V
Maximum Series Fuse Rating	12A	12A	12A	12A	20A

#STC (1000W/m<sup>2</sup>), AM1.5, cell temperature 25°C. Power Tolerance : 0/+5%. Power measurement accuracy:±3%

Our solar panels are included in Detailed List of Manufacturers and Models of Solar PV Modules Recommended under ALMM Order

## Solar Module Dimension



## Mechanical Data

Module Dimensions (mm) LxWxT	435x670	785x670	1035x670	1505x686	1986x1001
Module Weight (kgs)	3.30	6.50	8.20	11	21
IP Rating	IP 65	IP 65	IP 65	IP 65	IP 67
Cable	No cable			1000mm length cables	
Frame	Silver Anodized Aluminium Alloy				
Glass	3.2mm thick high transmission low iron tempered glass, AR coated				
Cell Encapsulant	EVA (Ethylene Vinyl Acetate)				
Back Sheet	Composite Film				
Maximum Surface Load Capacity	5400 Pa (Pascals)				
Application Class	Class A (Safety Class II)				

## Permissible Operating Conditions

Operating Temperature	- 40°C to + 85°C	
Temp coefficient of Open Circuit Voltage	-0.23 %/°C	-0.3%/°C
Temp coefficient of Short Circuit Current	0.07 %/°C	+0.06%/°C
Temp coefficient of Power	-0.29 %/°C	-0.35%/°C

## Warranty and Certifications

Product Warranty**	5 Years	12 Years
Performance Warranty**	Linear Performance Warranty for 25 Years with 3% for 1st year degradation and 0.70% from year 2 to 25	
Approvals and Certificates	BIS certified as per IS/IEC standards	

\*\* Refer to Luminous Warranty document for Terms and conditions. Technical specifications are subject to change without prior notice.