

# SL65-60MAJ 435~460W

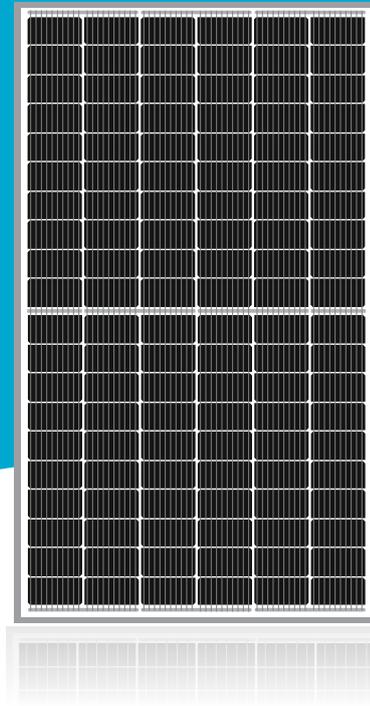
## HALF-CUT / MBB Series

1,500V Monocrystalline PV Module

### CERTIFICATIONS

IEC 61215, 61730 / UL 61730  
ISO 9001: Quality Management System  
ISO 14001: Environmental Management System  
ISO 45001: Occupational Health & Safety System

Silver



### FEATURES



#### Enhanced External Load/Impact

Snow Load : 5,400 Pa  
Wind Load : 2,400 Pa



#### PID Resistance

Enhanced Potential Induced Degradation Resistance



#### Fire Safety

Spread of Flame Class A  
Burning Brand Class C



#### Higher output power

0~+5Wp,  
Higher than rated power



#### Excellent performance under low light conditions

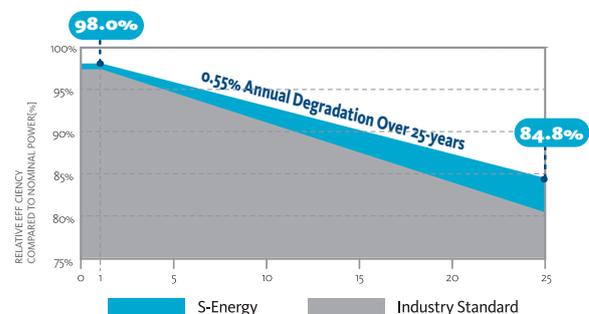
Cloudy days, mornings and evenings



### WARRANTY

**12** -YEARS PRODUCT WARRANTY

**25** -YEARS LINEAR PERFORMANCE WARRANTY



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## ELECTRICAL CHARACTERISTICS

STC (Irradiance 1,000W/m <sup>2</sup> , module temperature 25°C, AM=1.5)	SL65-60MAJ-435Z	SL65-60MAJ-440Z	SL65-60MAJ-445Z	SL65-60MAJ-450Z	SL65-60MAJ-455Z	SL65-60MAJ-460Z
Rated Power (Pmax)	435W	440W	445W	450W	455W	460W
Voltage at Pmax (Vmp)	33.90V	34.10V	34.30V	34.50V	34.70V	34.90V
Current at Pmax (Imp)	12.84A	12.91A	12.98A	13.05A	13.12A	13.19A
Warranted Minimum Pmax	435W	440W	445W	450W	455W	460W
Short-Circuit Current (Isc)	13.57A	13.64A	13.71A	13.78A	13.85A	13.92A
Open-Circuit Voltage (Voc)	40.80V	41.00V	41.20V	41.40V	41.60V	41.80V
Module Efficiency	20.04%	20.27%	20.50%	20.73%	20.96%	21.19%
Operating Module Temperature	-40°C to + 85°C					
Maximum System Voltage	1,500V					
Maximum Fuse Rated Current	25A					
Maximum Reverse Current	33,75A					
Power Tolerance	0 ~ +5W					

## MECHANICAL CHARACTERISTICS

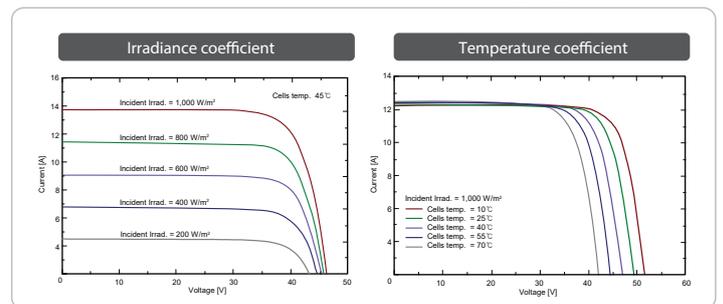
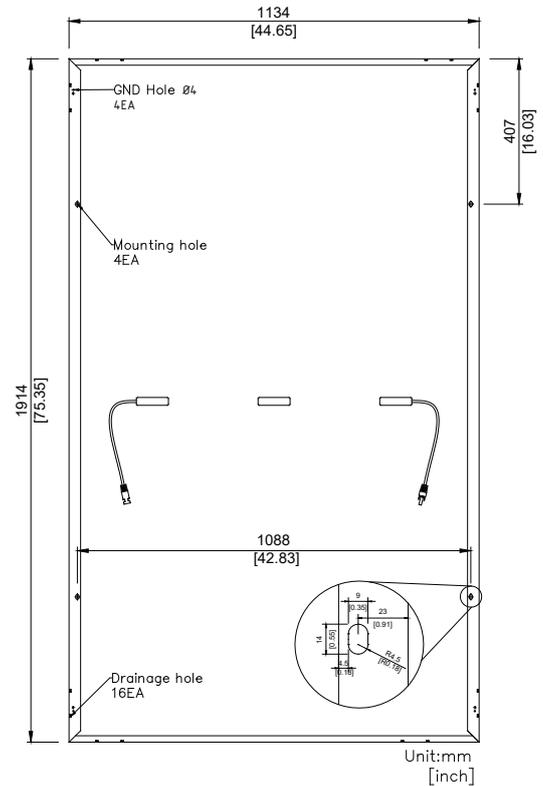
<b>Solar Cells</b>	Monocrystalline Cells 182x91mm
<b>Number of Cells</b>	60 Half Cells (6x20 Matrix)
<b>Dimensions</b>	1,914 x 1,134 x 30mm
<b>Front Load</b>	5,400Pa
<b>Rear Load</b>	2,400Pa
<b>Weight</b>	24kg
<b>Glass</b>	3.2mm High-Transmittance Low Iron Tempered Glass
<b>Frame</b>	Anodized Aluminum Frame (Silver)
<b>J-Box</b>	IP68 with 3 bypass diodes
<b>Output Cables</b>	PV Wire, 12AWG (4mm <sup>2</sup> ), Cable Length : 350mm * cable length can be customized
<b>Connectors</b>	MC4 Compatible

## TEMPERATURE CHARACTERISTICS

<b>Temperature coefficient of Isc</b>	0.050 % / °C
<b>Temperature coefficient of Voc</b>	-0.290 % / °C
<b>Temperature coefficient of power</b>	-0.350 % / °C
<b>NOCT</b> (Tair 20°C ; Irradiance 800W/m <sup>2</sup> ; Wind 1m/s)	44±2 °C

## PACKING CONFIGURATION

<b>Container</b>	20'	40'
<b>Modules Per Pallet</b>	36pcs	36pcs
<b>Pallets Per Container</b>	5pallets	24pallets
<b>Modules Per Container</b>	180pcs	864pcs



### REMARKS

- Pmax measurement tolerance : ±2.5%
- S-Energy uses triple A class simulator.
- Specification subject to change without prior notice.
- S-Energy reserves the rights of final interpretation.

### NOTES

Installation instruction supplied with the module must be duly followed. For further information which is not mentioned on installation guides or directions, please contact to our technical service department.  
• E-mail : Inquiry@s-energy.com