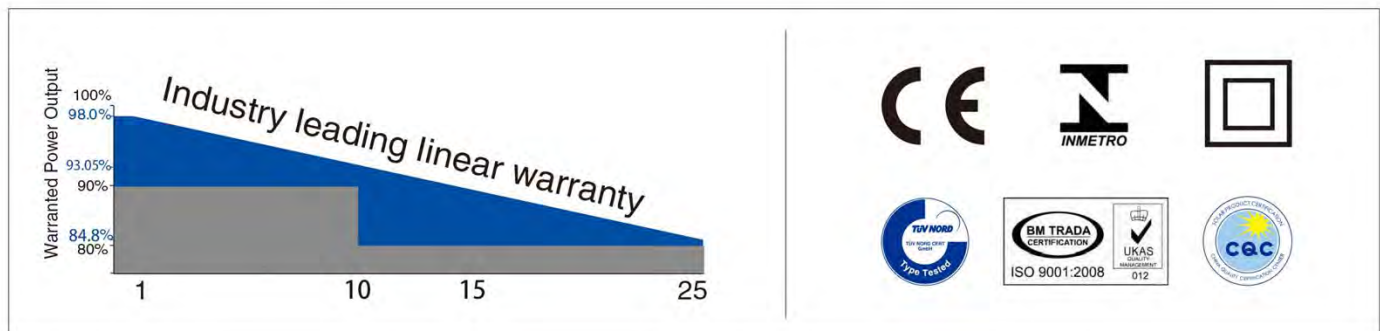


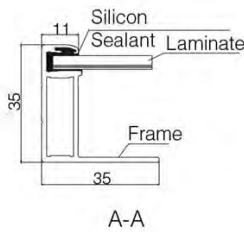
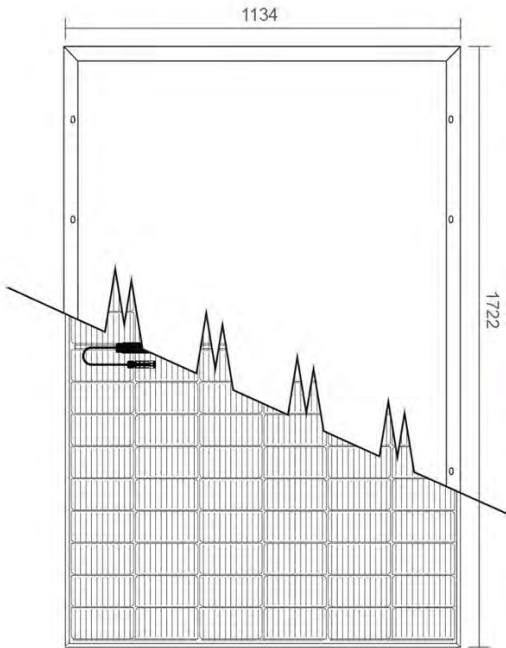
# MONO PERC HALF CELL MODULE

SL5M108  
400-415 Watt

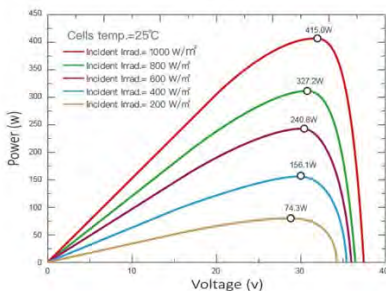
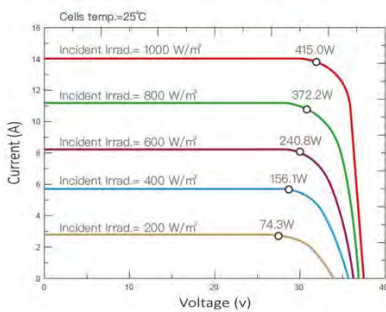


- High Power Density**  
 High conversion efficiency per square meter, Lower series resistance and ensure more light harvesting.
- Higher Durability**  
 Multi-busbar design can decrease the risk of the cell micro- cracks and fingers broken.
- Half-cell Design**  
 Less energy loss caused by shading, Lower cell connection power loss.
- Heavy Mechanical Load**  
 Mechanical load tests including wind load 2400 Pa and snow load 5400 Pa.
- Anti-PID**  
 Advanced cell technology and qualified materials lead to high resistance to PID.
- Harsh Environmental Adaptability**  
 Strict salt spray and ammonia corrosion test proven.





Current-Voltage & Power-Voltage Curves (SL5M108)



## ELECTRICAL DATA (STC)

Rated Power In Watts-Pmax (Wp)	400	405	410	415
Maximum Power Voltage-Vmpp (V)	31.01	31.23	31.44	31.66
Maximum Power Current-Impp (A)	12.90	12.97	13.04	13.11
Open Circuit Voltage-Voc (V)	37.05	37.20	37.35	37.50
Short Circuit Current-Isc (A)	13.79	13.86	13.93	14.00
Module Efficiency (%)	20.5%	20.7%	21.0%	21.3%

STC: Irradiation 1000 W/m<sup>2</sup>, Cell Temperature 25 °C, Air Mass AM1.5 according to EN 60904-3.

## ELECTRICAL DATA (NMOT)

Maximum Power-Pmax (Wp)	302	306	310	314
Maximum Power Voltage-Vmpp (V)	28.95	29.23	29.50	29.74
Maximum Power Current-Impp (A)	10.43	10.47	10.51	10.55
Open Circuit Voltage-Voc (V)	30.90	31.19	31.48	31.61
Short Circuit Current-Isc (A)	11.05	11.09	11.13	11.17

NOCT: Irradiation: 800 W/m, ambient temperature: 20, air mass: 1.5, wind speed 1 m/s  
Performance under weak light conditions (200 W/m) EN60904-1, 96.0 % or higher of the STC efficiency (1000 W/m) is achieved.

## MECHANICAL CHARACTERISTICS

Solar Cells	Monocrystalline, MBB
Cell Configuration	108 cells (6 × 9 × 2)
Module Dimensions	1722 x 1134 x 35 mm
Weight	21.5 kg
Glass	High Transmission, Low Iron, Tempered ARC Glass
Back Sheet	White Back-sheet
Frame	Anodized Aluminium Alloy, Silver
J-Box	IP68, 3 bypass diodes
Cables	4.0mm <sup>2</sup> , Positive (+) 900mm, Negative (-) 900mm
Connector	MC4 Compatible

## TEMPERATURE & MAXIMUM RATINGS

Nominal Module Operating Temperature (NMOT)	44°C ± 2°C
Temperature Coefficient of Voc	-0.275% / °C
Temperature Coefficient of Isc	0.045% / °C
Temperature Coefficient of Pmax	-0.35% / °C
Operational Temperature	-40°C ~ +85°C
Maximum System Voltage	1500VDC
Max Series Fuse Rating	25A

## PACKAGING CONFIGURATION

	40 FT (HQ)
Number of Modules Per Container	806
Number of Modules Per Pallet	31
Number of Pallets Per Container	26

# Warranty Terms

## Limited Warranty For PV Modules

### 1. Limited Product Warranty –Fifteen Years Repair, Replacement Remedy

SunLink PV warrants its module(s) and laminate(s), to be free from defect in materials and workmanship under normal application, installation, use and service conditions. If modules fail to conform to this warranty during the period of Fifteen (15) years from the WARRANTY START DATE, SunLink PV will, at its option, either repair or replace the product. The repair or replacement remedy shall be the sole and exclusive remedy provided under the “Limited Product Warranty” and shall not extend beyond the period set forth herein. This “Limited Product Warranty” does not warrant a specific power output, which shall be exclusively covered under Clause 2. hereinafter (“Limited Peak Power Warranty”).

Note: For laminate product, silicon/tape sealing, framing, junction box mounting related process and materials flaws are excluded, the laminate defects such as scratch, dirt, etc. potentially caused by following processing are also excluded.

### 2. Limited Peak Power Warranty - Limited Remedy

The limited peak power warranty is usually lasting 25 years except for special case listed in clause 4. From the WARRANTY START DATE in one-year period, any Polycrystalline Modules/ Monocrystalline Modules exhibits a power output degradation are conform with the following criteria:

For Polycrystalline Modules—power degradation does not exceed 2.5% in the first year, thereafter 0.7% per year, ending with 80.7% in the 25th year after the Warranty Start Date

For Monocrystalline Modules—power degradation does not exceed 2% in the first year, thereafter 0.55% per year, ending with 84.8% in the 25th year after the Warranty Start Date

Provided that any Module exhibits a power loss exceeding the criteria as set forth above, and such loss in power is determined by SunLink PV, at its sole and absolute discretion, to be due to defects in materials or SunLink PV workmanship, SunLink PV will replace such loss in power by, at its sole option, either (a) providing additional MODULES to the CUSTOMER to make up for such loss in power or (b) Replace the defective MODULE(s)

### 3. Warranty start date

This Warranty Terms shall start upon the date of installation or Sixty (60) days after delivery by SunLink PV, whichever date is earlier.

### 4. Exclusions and Limitations

A: In any event, warranty claims must be filled within the applicable warranty period

B: The “Limited Warranties” do not apply to any PV-modules which have been subjected in SunLink PV’s absolute judgment:

- Misuse, abuse, neglect or accident;
  - Alteration, improper installation or application;
  - Non-observance of SunLink PV’s installation-users and maintenance instructions;
  - Repair or modifications by someone other than an approved service technician of SunLink PV;
  - Power failure surges, lighting, flood, fire, accidental breakage or other events outside SunLink PV’s control.
- C: The “Limited Warranties” do not cover any transportation costs for return of the PV-modules, or for re-shipment of any repaired or replaced PV-modules, or costs associated with installation, removal or reinstallation of the PV-modules.

D: When used in non-land based applications, including but not limited to modules mounted on the ocean or in a distance of 500 meters from ocean, the “Limited Product Warranty” applying to any of the PV-modules will be limited in ten (10) years. And the “Limited Peak Power Warranty” which the peak power is no less than 90% of the nominal power as set out in SunLink PV’s product datasheet, shall be limited to ten (10) years.

E: Warranty claims will not be honored if the serial number of the PV-modules have been altered, removed or made illegible.

### 5. Limitation of Warranty Scope

This “Warranty Term” as set forth herein is expressly in lieu of and exclude all other express or implied warranties, including but not limited to warranties of merchantability and of fitness for particular purpose, use, or application, and all other obligations or liabilities on the part of SunLink PV, unless such other obligations or liabilities are expressly agreed to in writing signed and approved by SunLink PV. SunLink PV shall have no responsibility or liability whatsoever for damage or injury to persons or property, or for other loss or injury resulting from any cause whatsoever arising out of or related to the MODULES, including, without limitation, any defects in the MODULES, or from use or installation. Under no circumstances shall SunLink PV be liable for incidental, consequential or special damages, howsoever caused. Loss of use, loss of profits, loss of production, and loss of revenues are specifically and without limitation excluded. SunLink PV’s aggregate liability, if any, in damages or otherwise, shall not exceed the invoice value as paid by the CUSTOMER, for the single unit of product or service furnished or to be furnished, as the case may be, which is the subject of claim or dispute.

## Warranty Terms

# Limited Warranty For PV Modules

### 6.Obtaining Warranty Performance

If the CUSTOMER believe it has a justified claim covered by this "Warranty Terms" , an immediate notification directly to SunLink PV shall be filed by mailing a registered letter in writing to the address of SunLink PV, or sending an email letter to the email account of SunLink PV sales/affiliate or email address listed hereunder. Together with the notification, the CUSTOMER should enclose the evidence of the claim with the corresponding serial number of the MODULE(s)/laminates and the date on which the MODULES/laminates have been purchased. An invoice with clear indication of the purchase date, purchase price, module type, stamp or signature of SunLink PV or its distributors should also be submitted as part of the evidence. The return of any MODULES/laminates will not be accepted unless prior written authorization has been given by SunLink PV.

### 7.Severability

If a part, provision or clause of this "Warranty Terms" , or the application thereof to any person or circumstance, is held invalid, void or unenforceable, such holding shall not affect and shall leave all other parts, provisions, clauses or applications of this "Warranty Terms" , and to this end such other parts, provisions, clauses or applications of this "Warranty Terms" shall be treated as severable.

### 8.Disputes

In case of any discrepancy in a warranty-claim, a first-class international test-institute such as VDE, TÜV SUD shall be involved to judge the claim finally. All fees and expenses shall be born by the losing party, unless otherwise awarded.

### 9.Various

The repair or replacement of the PV-modules or the supply of additional PV-modules does not cause the beginning of new warranty terms, nor shall the original terms of this "Limited Warranty" be extended. Any replaced PV-modules shall become the property of SunLink PV. SunLink PV has the right to deliver another type(different in size, color, shape and/or power)in case SunLink PV discontinued producing the PV-module in question at the time of the claim.

### 10.Force Majeure

SunLink PV shall not be responsible in any way to the Customer arising from any non-performance or delay in performance of any terms and conditions of sale, including this "Limited Warranty", due to acts of God, War, riots, strikes, material, , or capacity or technical or yield failures and any unforeseen event beyond its control, including, without limitations, any technological or physical event or condition which is not reasonably known or understood at the time of the sale of the PV-modules or the claim.

#### NOTE:

1."Peak Power" is the power in Watt peak that a module/laminate generates in its Maximum PowerPoint. "STC" are as follows: (a) light spectrum of AM1.5,(b) an irradiation of 1000W per  $m^2$  and(c) a cell temperature of 25 degree centigrade. The measurements are carried out in accordance with IEC 61215 as tested at the junction box terminals per the calibration and testing standards of SunLink PV valid at the date of manufacture of the PV-modules. SunLink PV' s calibration standards shall be in compliance with the standards applied by international institutions accredited for this purpose.

SunLink PV warranty claim handling please contact below email address:info@sunlink-pv.com