

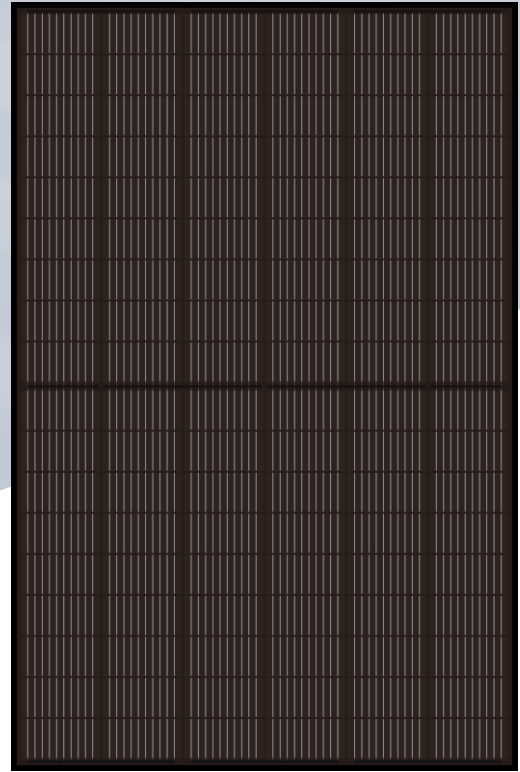


PERLIGHT SOLAR  
Powering Possibilities

# PLM-415H8MB-108 SERIES

Monocrystalline Silicon Half Cell Solar Module  
Power range 400W-420W

*Plus extra 5W power*



Insurance



## Linear Power Output Warranty

**30**

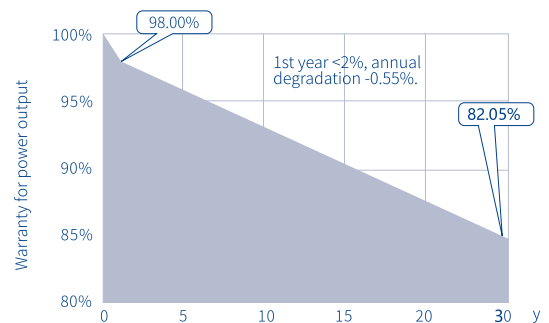
30-year  
warranty for  
materials.

**30**

30-year  
warranty for  
linear power  
output.

**21.5%**

MAX MODULE EFFICIENCY  
AFTER INSTALLED



## PERLIGHT SOLAR

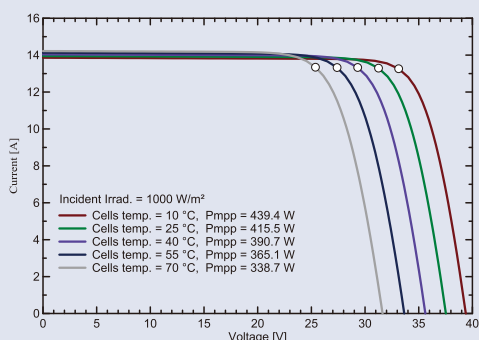
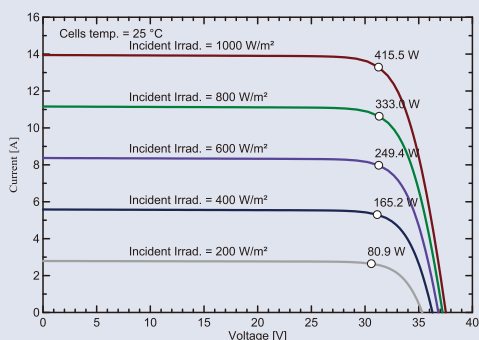
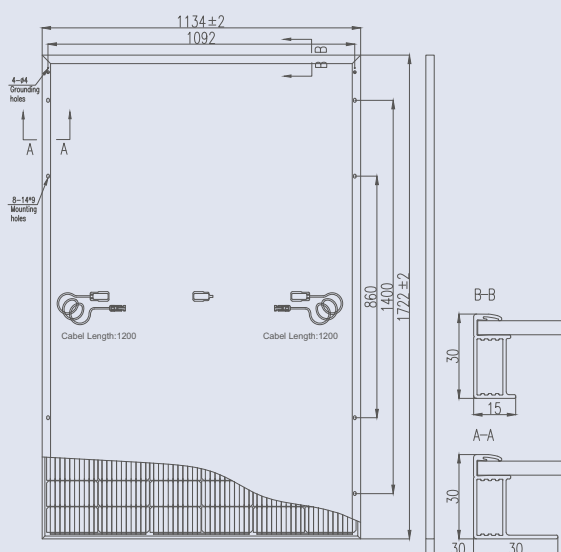
Founded in 2006, Perlight Solar is growing to be the world leading residential smart solar PV products manufacturer & service provider.

Based on more than 30 years manufacturing experience of Baolite Group, along with the implementation of MES & ERP system, Perlight Solar have realized lean and flexible manufacturing of solar cell & solar module.

With corporate values "Customer First, Talent Excellence, Pragmatic Innovation, Integrity & Win-Win", Perlight Solar will continue to provide excellent smart energy products & service to global families and vision to be the leading brand in global distributed smart energy.



PERLIGHT SOLAR  
Powering Possibilities



Perlight Partners

## Electrical Characteristics (STC\*)

|                               |       |       |       |       |       |
|-------------------------------|-------|-------|-------|-------|-------|
| Maximum Power at STC (Pmp)    | 400   | 405   | 410   | 415   | 420   |
| Maximum Power Voltage (Vmp)   | 30.58 | 30.73 | 30.88 | 31.03 | 31.18 |
| Maximum Power Current (Imp)   | 13.08 | 13.18 | 13.28 | 13.38 | 13.47 |
| Open Circuit Voltage (Voc)    | 37.08 | 37.23 | 37.38 | 37.53 | 37.68 |
| Short Circuit Current (Isc)   | 13.77 | 13.87 | 13.92 | 13.95 | 13.98 |
| Module Efficiency at STC (nm) | 20.5% | 20.7% | 21.0% | 21.3% | 21.5% |

STC: 1000W/m² irradiance, 25°C cell temperature, AM 1.5g spectrum.

Power tolerance: ±3%

## Electrical Characteristics (NMOT\*)

|                             |       |       |       |       |       |
|-----------------------------|-------|-------|-------|-------|-------|
| Maximum Power at STC (Pmp)  | 302.8 | 306.6 | 310.3 | 314.1 | 317.9 |
| Maximum Power Voltage (Vmp) | 28.76 | 28.90 | 29.04 | 29.18 | 29.32 |
| Maximum Power Current (Imp) | 10.52 | 10.60 | 10.68 | 10.76 | 10.84 |
| Open Circuit Voltage (Voc)  | 34.72 | 34.86 | 35.00 | 35.15 | 35.29 |
| Short Circuit Current (Isc) | 10.82 | 10.90 | 10.97 | 11.05 | 11.12 |

NOCT: 800W/m² irradiance, 20°C environment temperature, 1m/s wind speed.

## Mechanical Properties

|                  |                                                           |
|------------------|-----------------------------------------------------------|
| Cell Size        | 182mm×91mm                                                |
| Number of Cells  | 108 [ 6×18]                                               |
| Module Dimension | 1722×1134×30mm(L×W×H)                                     |
| Weight           | 20.5Kg                                                    |
| Front Glass      | High Transmission Glass 3.2mm                             |
| Frame            | Anodized Aluminium Alloy                                  |
| Junction Box     | IP 68 ( 3 Diodes )                                        |
| Cable Length     | TUV 1×4.0 mm², (+):1200mm/(-):1200mm or Customized Length |

## Temperature Ratings

|                                           |            |
|-------------------------------------------|------------|
| Isc Temperature Coefficient               | +0.045%/°C |
| Voc Temperature Coefficient               | -0.27%/°C  |
| Pmax Temperature Coefficient              | -0.34%/°C  |
| Nominal Operating Cell Temperature (NOCT) | 45±2°C     |

## Working Conditions

|                                     |            |
|-------------------------------------|------------|
| Max. system voltage                 | DC1500V    |
| Limiting reverse current            | 25A        |
| Operating temperature range         | -40°C~85°C |
| Max. static load front (e.g., snow) | 5400Pa     |
| Max. static load back (e.g., wind)  | 2400Pa     |
| Safety Class                        | II         |

## Packaging Configuration

|                       |       |
|-----------------------|-------|
| Container             | 40'HQ |
| Pieces Per Pallet     | 36    |
| Pallets Per Container | 26    |
| Pieces Per Container  | 936   |