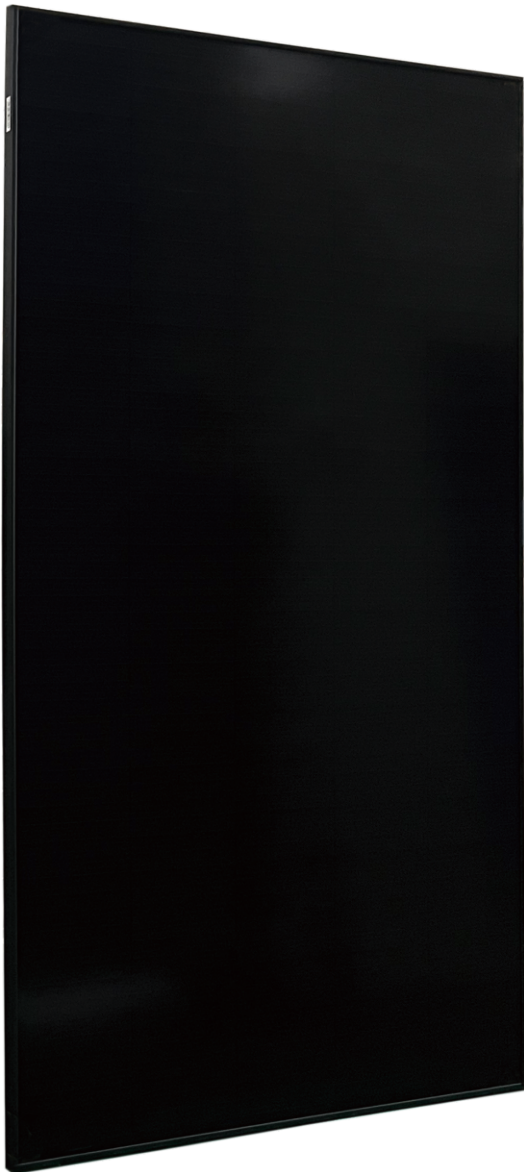




**PERLIGHT**  
smart.black

## Monocrystalline PERC Solar Module

# PLM-445OM10A-46B



### Features of Module



#### Shingling Technology

Innovative structure, low-temperature adhesive bonding, high-density layout.



#### Beautiful Appearance

Uniform layout, better aesthetic.



#### Superior Safety and Reliability

No hidden welding crack, low operating temperature, high pressure resistance.



#### Low System Cost

High module efficiency, reducing system cost.



#### Low Hot Spot Risk

Parallel circuit design reduces shading loss.



#### Low Shading Loss

Full parallel arrangement brings high effective power generation hours.



#### Eco-friendly

Adhering to green philosophy, no fluorine and low lead.

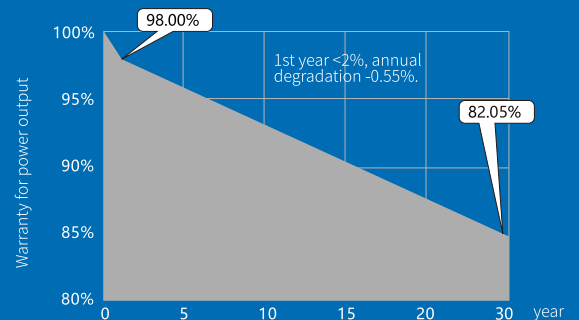
### Linear Power Output Warranty

**30**

30-year warranty for materials.

**30**

30-year warranty for linear power output.



### Quality Management System and Product Certification

IEC61215/61730, IEC62804(PID), IEC61701(Salt),  
IEC62716 (Ammonia), IEC60068-2-68(Sand)  
ISO 9001:2015 / quality management system  
ISO 14001:2015 / environmental management system  
ISO 45001:2018 / occupation health safety management system  
ISO 50001:2011 / energy management system  
IEC TS 62941 – 2016 / PV industry quality management system



Insurance



## Electrical Characteristics (STC)

Module Type:	445	440	435	430	425	420
Maximum Power - Pm (W)	445	440	435	430	425	420
Open Circuit Voltage - Voc (V)	43.8	43.7	43.6	43.5	43.4	43.3
Short Circuit Current-Isc [A]	13.01	12.90	12.79	12.68	12.56	12.46
Maximum Power Voltage-Vm [V]	36.4	36.3	36.2	36.1	36.0	35.9
Maximum Power Current-Im [A]	12.23	12.13	12.02	11.92	11.81	11.71
Module Efficiency-η [%]	21.4	21.1	20.9	20.7	20.4	20.2

## Electrical Characteristics at NMOT

Maximum Power-Pm [W]	335	331	328	324	320	316
Open Circuit Voltage-Voc [V]	41.8	41.7	41.6	41.5	41.4	41.3
Short Circuit Current-Isc [A]	10.50	10.41	10.32	10.23	10.14	10.05
Maximum Power Voltage-Vm [V]	34.7	34.6	34.5	34.4	34.3	34.2
Maximum Power Current-Im [A]	9.66	9.57	9.49	9.41	9.32	9.24

Note: 1. Standard Test Conditions (STC): irradiance 1000 W/m<sup>2</sup>; AM 1.5; ambient temperature 25 °C according to EN 60904-3;  
2. Nominal Module Operating Temperature (NMOT): Irradiance 800W/ m<sup>2</sup>; wind speed 1m/s , ambient temperature 20 °C.  
3. Tolerance of Pm: -/+3%, Measuring uncertainty of power: -/+3%, Performance deviation of Voc [V], Isc [A], Vm [V] and Im [A]: -/+3%.

## Mechanical Parameters

Dimensions	1899 × 1096 × 30 mm
Weight	21.8kg
Front glass	tempered glass, 3.2mm
Frame	Anodized aluminum profile
Cells	Mono-crystalline solar cell
Cell Orientation	320 (64 × 5)
Junction Box	IP68, two diodes
Cable	4mm <sup>2</sup> , 1200mm
Packaging	36pcs/box;864pcs/40'container;1296pcs/flat car

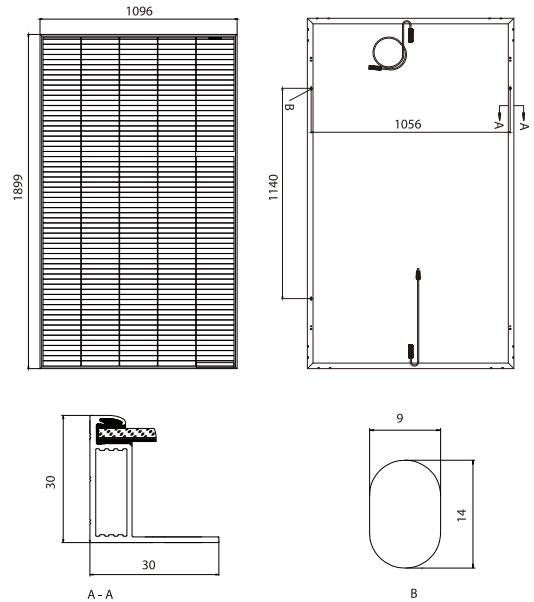
## Temperature Parameters

NMOT	42.30 °C (±2°C)
Temperature Coefficient of Voc	-0.27%/°C
Temperature Coefficient of Isc	+0.04%/°C
Temperature Coefficient of Pm	-0.34%/°C

## Maximum Ratings

Maximum System Voltage [V]	DC1500 (IEC)
Series Fuse Rating [A]	25
Maximum Surface Load Capacity [Pa]	Front 5400 / Back 2400
Temperature Range [°C]	-40 ~ + 85
Withstanding Hail	Maximum diameter of 25 mm with impact speed of 23 m/s

## Drawings



## I-V Curve

