



PERLIGHT
smart.black

Monocrystalline PERC Solar Module

PLM-4150M6B-60



Features of Module



Technology

Innovative structure; Low temperature adhesive;
High density setting.



Beautiful appearance

Module's layout is homogeneous and consistent;
With more aesthetic feeling of science and technology.



Safety and reliability

No micro-crack caused by welding; Lower operating
temperature; High pressure resistance.



Lower system cost

High screen-to-body ratio which reduce system cost.



Low hot spot effect

Prolong module lifetime; Reduce electricity loss during
generating.



Lower occlusion loss

Parallel layout brings high effective generation hours



Green and environmental friendly

Insist environmental friendly faith; Fluorine-free and
low Pb in module

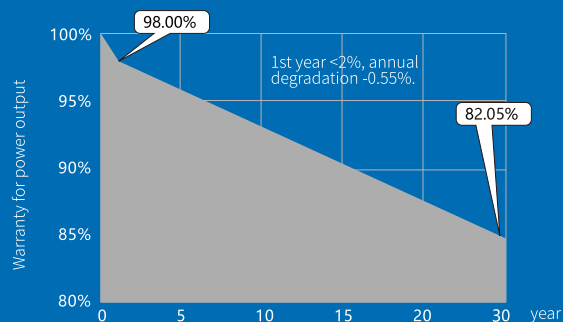
Linear Power Output Warranty

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

PICC

Electrical Characteristics (STC)

Module Type:	415	410	405	400	395	390	385	380
Maximum Power - Pm (W)	415	410	405	400	395	390	385	380
Open Circuit Voltage - Voc (V)	46.7	46.6	46.5	46.4	46.3	46.3	46.2	46.1
Short Circuit Current-Isc [A]	11.12	11.07	11.02	10.97	10.92	10.87	10.82	10.77
Maximum Power Voltage-Vm [V]	38.9	38.8	38.7	38.6	38.5	38.5	38.4	38.3
Maximum Power Current-Im [A]	10.67	10.57	10.47	10.36	10.26	10.13	10.03	9.92
Module Efficiency-η [%]	21.2	20.9	20.7	20.4	20.2	19.9	19.6	19.4

Electrical Characteristics at NMOT

Maximum Power-Pm [W]	312	309	305	301	297	294	290	286
Open Circuit Voltage-Voc [V]	44.5	44.4	44.3	44.2	44.1	44.1	44.0	43.9
Short Circuit Current-Isc [A]	8.97	8.93	8.89	8.85	8.81	8.77	8.73	8.69
Maximum Power Voltage-Vm [V]	37.1	37.0	36.9	36.8	36.7	36.7	36.6	36.5
Maximum Power Current-Im [A]	8.43	8.35	8.27	8.18	8.10	8.00	7.92	7.84

Note: 1. Standard Test Conditions [STC]: irradiance 1000 W/m²; AM 1.5; ambient temperature 25°C according to EN 60904-3;
2. Nominal Module Operating Temperature (NMOT): Irradiance 800W/ m²; 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	1719 × 1140 × 30 mm
Weight	21 kg
Front glass	AR coating tempered glass, 3.2mm
Frame	Anodized aluminum profile
Cells	Mono-crystalline solar cell
Cell Orientation	340 (34 × 10)
Junction Box	IP68, two diodes
Cable	4mm², 1200mm
Packaging	36pcs/box; 936pcs/40'container

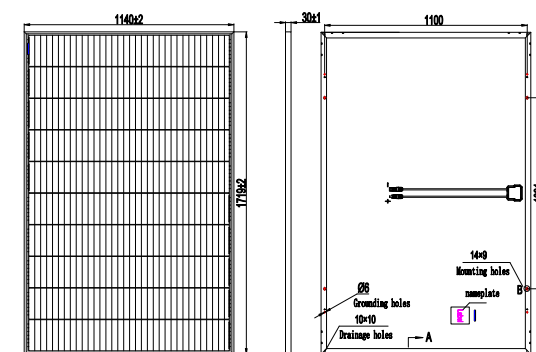
Temperature Parameters

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

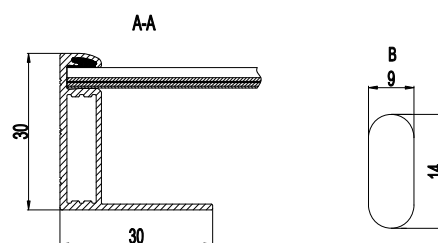
Maximum Ratings

Maximum System Voltage [V]	DC1500 / 1000(IEC)
Series Fuse Rating [A]	20
Maximum Surface Load Capacity [Pa]	Front 5400
Temperature Range [°C]	-40 ~ + 85
Withstanding Hail	Maximum diameter of 25 mm with impact speed of 23 m/s -1

Drawings



Declaration:



I-V Curve

