



**PERLIGHT**  
smart.black



**MONOCRYSTALLINE SOLAR MODULE**

**PLM-280M-60 SERIES**  
**PLM-280MB-60 SERIES**  
**PLM-280MA-60 SERIES**

## 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 manu-

facturing 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.



**19.36%**  
Maximum Module Efficiency



**12 Years**  
Limited Product Warranty



**25 Years**  
Performance Warranty



### Performance

Good performance even under low light conditions



### Reliability

Strict selection of raw materials and strict quality control ensure reliability



### Smart

Optional smart-ready design. Easy upgrade into smart solar module solution

**PERLIGHTSOLAR**

# MONOCRYSTALLINE 60-CELL SERIES

## ELECTRICAL PERFORMANCE

Module type	PLM-280M/MB/MA-60									
Power output	$P_{max}$	$W_p$	280	285	290	295	300	305	310	315
Power output tolerances	$\Delta P_{max}$	$W$	0~+5							
Voltage at Pmax	$V_{mpp}$	$V$	32.08	32.39	32.70	32.93	33.12	33.30	33.48	33.66
Current at Pmax	$I_{mpp}$	$A$	8.73	8.80	8.87	8.96	9.06	9.16	9.26	9.36
Open-circuit voltage	$V_{oc}$	$V$	38.82	39.19	39.57	39.85	40.08	40.29	40.51	40.73
Short-circuit current	$I_{sc}$	$A$	9.34	9.41	9.48	9.55	9.65	9.75	9.85	9.95
Module Efficiency	Eff.	%	17.21	17.51	17.82	18.13	18.44	18.74	19.05	19.36

STC: 1000W/m<sup>2</sup> irradiance, 25°C cell temperature, AM 1.5g spectrum according to EN 60904-3.  
Power measurement uncertainty is within +/- 3%

## THERMAL CHARACTERISTICS

Nominal operating cell temperature	NOCT	°C	45±2
Temperature coefficient of Pmax	$\nu$	%/°C	-0.40
Temperature coefficient of Voc	$\beta_{Voc}$	%/°C	-0.30
Temperature coefficient of Isc	$\alpha_{Isc}$	%/°C	0.06

## OPERATING CONDITIONS

Max. system voltage	1000V <sub>oc</sub>
Limiting reverse current	15A
Operating temperature range	-40°C to 85°C
Max. static load front (e.g., snow)	5400Pa
Max. static load back (e.g., wind)	2400Pa

## MECHANICAL CHARACTERISTICS

Front cover (material / thickness)	low-iron tempered glass / 3.2mm
Backsheet (color)	white / black
Cell (quantity / material / dimensions)	60 / monocrystalline silicon / 156.75×156.75mm
Frame (material / color)	anodized aluminum alloy / silver / black
Junction box (protection degree)	≥ IP67
Cables & Plug connectors	900mm / 4mm <sup>2</sup> & MC4 compatible / IP67
Module Dimensions (L / W / H)	1640mm x 992mm x 35mm
Module Weight	18kg

## PACKING DETAILS

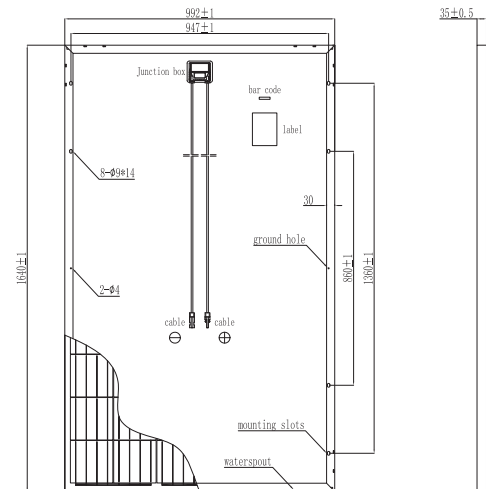
Container	20'GP	40'HQ
Pieces per pallet	60	66
Pallets per container	6	14
Pieces per container	360	924

Perlight Partners



**PERLIGHT**  
smart.black

## Module Diagram:



## Electrical Curves:

