




BLACK
MONOFACIAL MODULE

BSM440PMB7-46SC

420~440W

SHINGLED PERC

BLUESUN SOLAR CO.,LTD

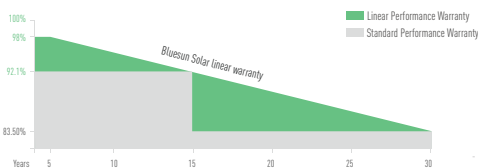
Bluesun, founded in 2004, as a superior photovoltaic manufacturer, is devoted to the R&D and the production of crystalline silicon solar cells and modules for 17 years. The company has its sales areas spread all over more than 100 countries and regions in the world, and the cumulative historical shipments exceeded 12 GW.

PERFORMANCE WARRANTY

15 Enhanced Product Warranty on Materials and Workmanship.

30 Linear Power Performance Warranty*

0.55% Annual Degradation Over 30 years no more than 0.55%



*According to the applicable Bluesun Solar Limited Warranty Statement.

MANAGEMENT SYSTEM CERTIFICATES

ISO 9001:2015 / Quality management system

ISO 14001:2015 / Standards for environmental

ISO 45001: 2018 / International standards for occupational health & safety

PRODUCT CERTIFICATES

IEC 61215 / IEC 61730 / CE



THE IDEAL SOLUTION FOR:



Rooftop arrays on residential buildings



Shingled Technology

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



Beautiful Appearance

Deep black, uniform layout, better aesthetic



Compact Design

Upto 440Wp output within 2m², perfect for residential rooftop



Low System Cost

High module efficiency, reducing system cost



Low Shading Loss

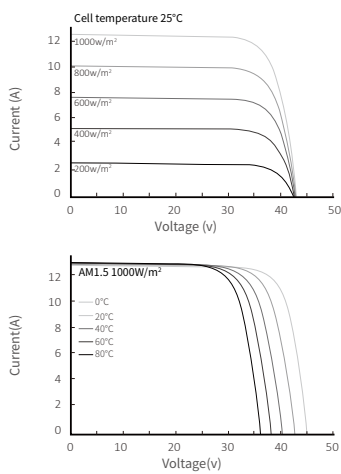
Full parallel arrangement brings high effective power generation hours

SPECIFICATIONS

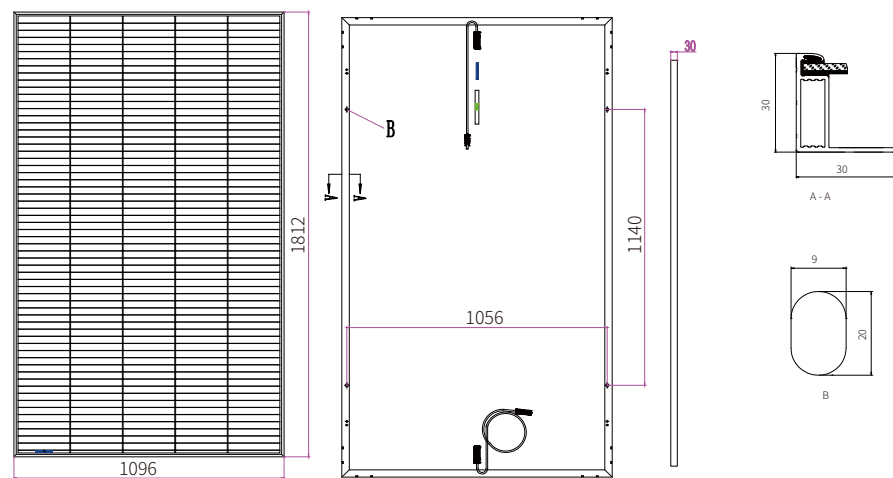
| Module Type | BSM420PMB7-46SC | | BSM425PMB7-46SC | | BSM430PMB7-46SC | | BSM435PMB7-46SC | | BSM440PMB7-46SC | |
|--|-----------------|-------|-----------------|-------|-----------------|-------|-----------------|-------|-----------------|-------|
| | STC | NMOT | STC | NMOT | STC | NMOT | STC | NMOT | STC | NMOT |
| Maximum Power (P _{max} /W) | 420 | 316 | 425 | 320 | 430 | 324 | 435 | 328 | 440 | 332 |
| Operating Voltage (V _{mp} /V) | 34.5 | 32.9 | 34.6 | 33.0 | 34.7 | 33.1 | 34.8 | 33.2 | 34.9 | 33.3 |
| Operating Current (I _{mp} /A) | 12.19 | 9.62 | 12.30 | 9.70 | 12.39 | 9.79 | 12.50 | 9.88 | 12.60 | 9.97 |
| Open-Circuit Voltage (V _{oc} /V) | 41.6 | 39.7 | 41.7 | 39.8 | 46.8 | 39.9 | 46.9 | 40.0 | 47.0 | 40.1 |
| Short-Circuit Current (I _{sc} /A) | 12.92 | 10.41 | 13.03 | 10.50 | 13.14 | 10.60 | 13.26 | 10.71 | 13.37 | 10.82 |
| Module Efficiency η _m (%) | 21.1 | | 21.4 | | 21.7 | | 21.9 | | 22.2 | |

STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5 NMOT: Irradiance at 800W/m², Ambient Temperature 20°C, Air Mass AM1.5, Wind Speed 1m/s

I-V CURVE



ENGINEERING DRAWINGS



MECHANICAL SPECIFICATION

| | |
|--------------------------|---|
| Cell Type | Mono-crystalline solar cell |
| Weight | 21.2kg |
| Module Dimensions | 1812*1096*30mm |
| Cable Length | +300mm/-1000(Vertical) +220mm/-180mm(Horizontal) |
| Cable Cross Section Size | TUV: 4mm ² (0.006inches ²)/UL: 12AWG |
| Front Glass | 3.2mm (0.13inches) AR Coating Tempered Glass |
| No. of Bypass Diodes | 2 |
| Packing Configuration | 36pcs/carton, 924pcs/40hq |
| Frame | Anodized Aluminium Alloy |
| Junction Box | IP68 |

OPERATING CONDITIONS

| | |
|------------------------|--|
| Maximum System Voltage | 1500/1000V DC(IEC) |
| Operating Temperature | -40°C~ +85°C |
| Maximum Series Fuse | 25A |
| Static Loading | Snow Loading: 5400Pa/ Wind Loading: 2400Pa |
| Conductivity at Ground | ≤0.1Ω |
| Safety Class | II |
| Resistance | ≥100MΩ |
| Connector | T01/LJQ-3-CSY/MC4/MC4-EVO2 |

TEMPERATURE COEFFICIENT

| | |
|--|-----------|
| Temperature Coefficient P _{max} | -0.34%/°C |
| Temperature Coefficient V _{oc} | -0.27%/°C |
| Temperature Coefficient I _{sc} | +0.04%/°C |
| NMOT | 42.3±2°C |

*Data contained in these specifications is subject to change without notice. Bluesun Solar reserves the right to final interpretation of content.