



QUA **BLACK**
MONOFACIAL MODULE

BSM440PMB7-46SC
420~440W
SHINGLED PERC

we love smart

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

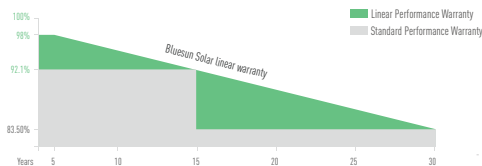
Enhanced Product Warranty on Materials and Workmanship.

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

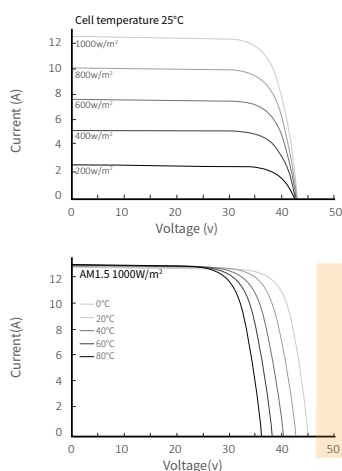
SPECIFICATIONS

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	41.8	39.9	41.9	40.0	42.0	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	

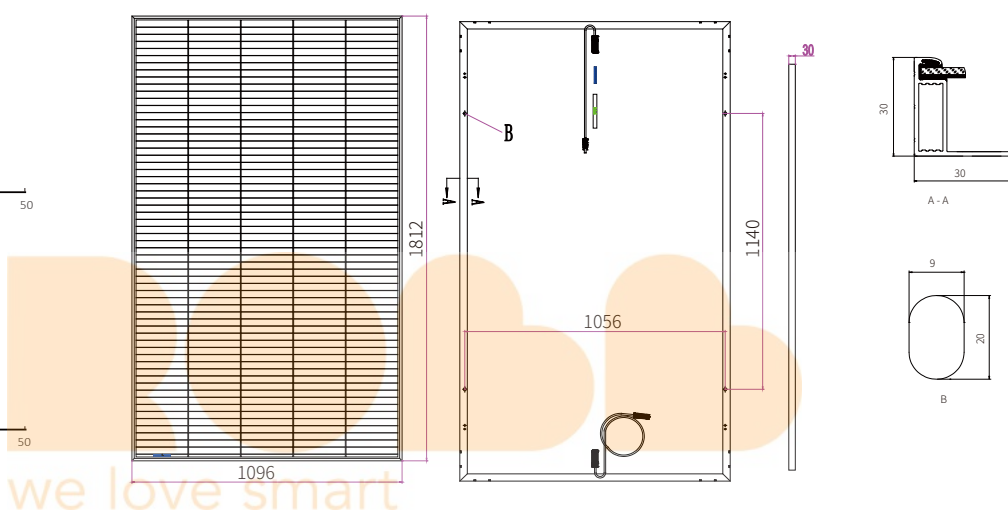
STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5

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

Maximun System Voltage	1500/1000V DC(IEC)
Operating Temperature	-40°C~ +85°C
Maximun 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.