

# PRODUCT CATALOG 2022

Bluesun Solar Co., Ltd www.powerbluesun.com

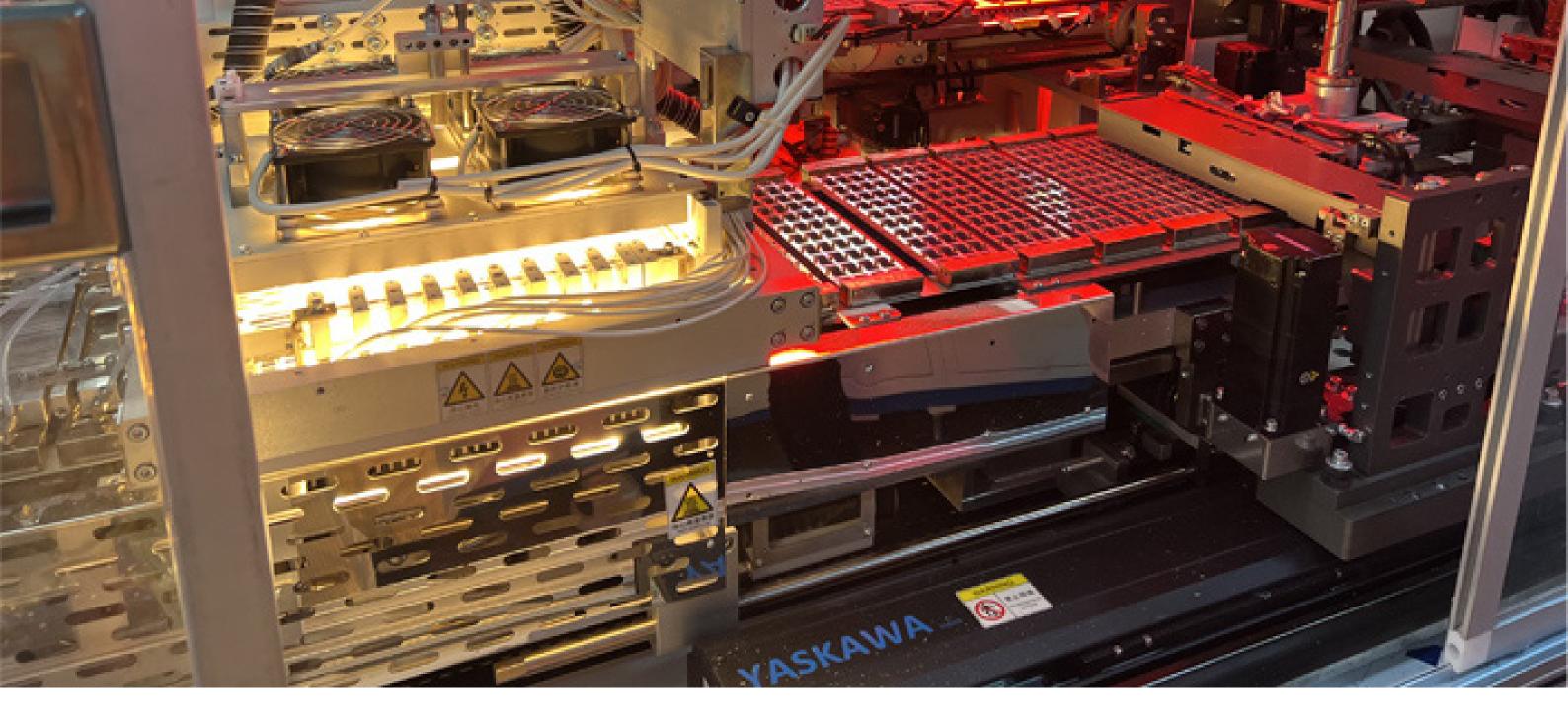
f facebook.com/pv.bluesun in linkedin.com/bluesun-solar



# Global Leading PV Manufacuturer and PV System Integrator

Bluesun, found in 2004, as a famous photovoltacic manufacturer in the world, is devolted to the R&D and the production of crystalline silicon solar cells and modules for 18 years. Bluesun's business footprint covers more than 100 countries and regions around the world, with more than 1000 industry- leading partners, two overseas warehouses. And the historical shipments exceeded15GW. We aim to become the most trusted PV company through continuous innovation and excellent management.





# **Strict Quality Control System**

Stringent quality control is the cornerstone of Bluesun's manufacturing. Our customers have come to expect uncompromising quality in our products. To meet this expectation of high quality, we continue to invest in state-of-the art equipment and professional training for our employees. We are proud of our product quality and their reliable performance even in the most extreme conditions.

ISO 9001: Quality Management System ISO 14001: Enviroment Management System OHSAS 18001: Occupational Health and Safety IEC TS 62941: Design and manufacture of Crystalline Silicon Photovoltaic Modules

### MATERIAL CONTROL

- Stringent Supplier Management
- Spot Check Every Feedstock Batch
- Supplier Quality Engineering
- Automatic Material Filtration and Sorting
- Proper Storage at Fixed Temperature and Humidity
- Incoming-material Quality Assurance

### **PRODUCTION CONTROL**

- 300+ Quality Check Points
- 3\*EL Tests
- In-process Quality Control

# Open Box Audit(OBA) Test

# **Bluesun Trustworthy Quality**

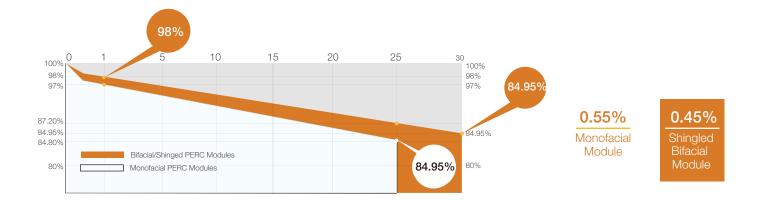
### **Robust Quality Certified**

Bluesun is fully certified by professional third party testing organizations. Like TUV, UL. The modules can adapt to harsh climate environment.



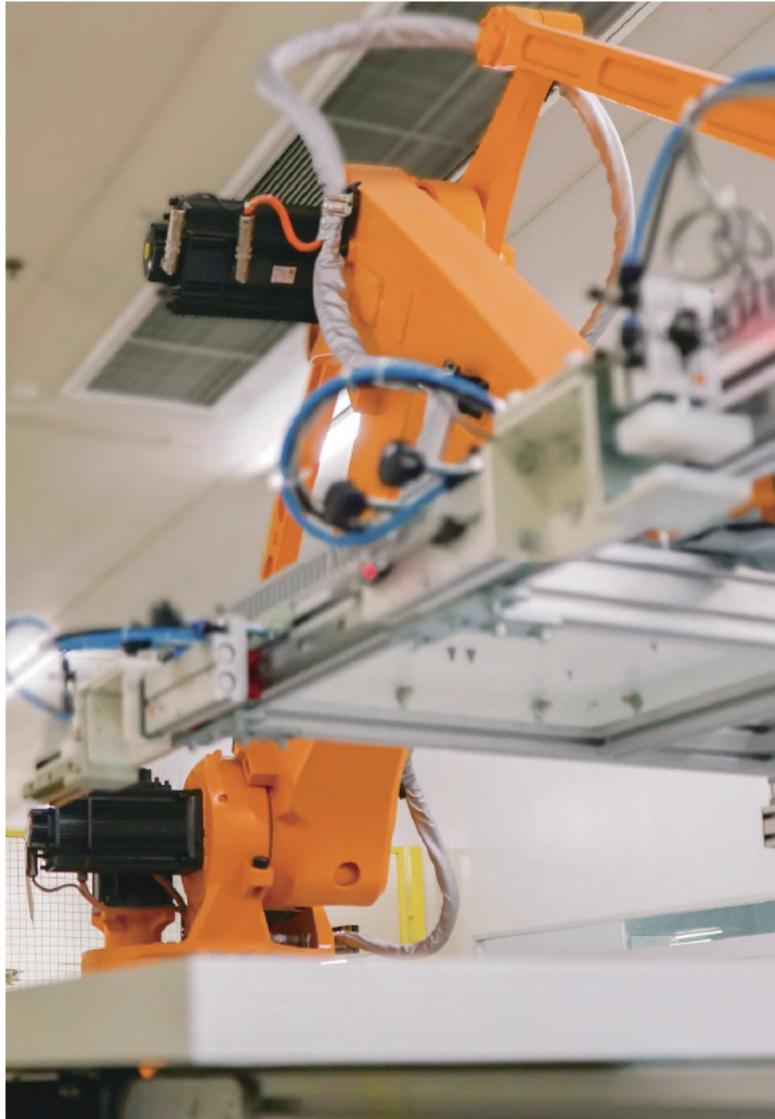
### Advanced Warranty Guarantee

FIRST-YEAR POWER WARRANTY OF ≥98% FOR PV MODULES Based on the advanced mono wafer and anti-LID technology, Bluesun offers a first-year power warranty of ≥98% for PV modules.



Bluesun Provides a 12-year product warranty (a 15-year wrranty for Shingled products), and a 25-year performance warranty for all products (a 30-year warranty for Shingled/Bifacial products).

Through a comprehensive pre-sales and after-sales service system, Bluesun provides high-quality service to global customers.



# HALF CELL TECHNOLOGY

SHINGLED TECHNOLOGY

**BIFACIAL TECHNOLOGY** 

**MBB TECHNOLOGY** 

\$11,5002-002-3001



# TECHNOLOGY

# **Half Cell Technology**

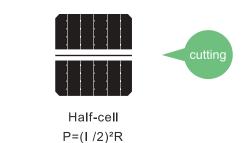
### Redusing current and loose:

Current density is reduced by 50%, internal power loss is reduced by 25%, and rated output power is increased.

>>>



Full-cell P=l<sup>2</sup>R

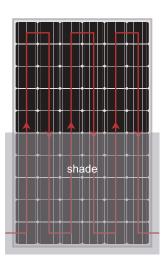


shade

Half-cell: 50% power output

Low shading loss:

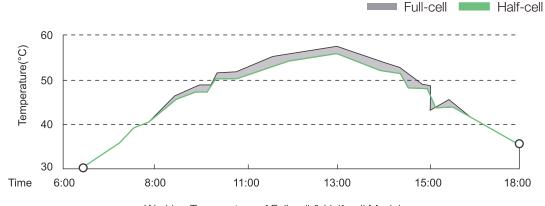
The split -type module design effectively reduces the current mismatch caused by shadow, and the power output is enhanced.



Full-cell: No power output

### Lower working temperature:

The working temperature of the half-cell modules is 2-3°C lower than the full-cell modules, greatly ensuring the safe working environment.

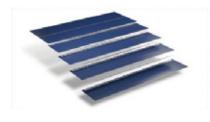


Working Temperature of Full-cell & Half-cell Modules

# **Shingled Technology**

### Simpler and reliable cells layout

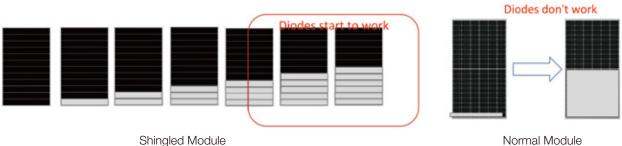
Compared with the normal module technology, the interconnected material of shingled module is different from that of normal module, whose technology is simpler and more reliable, avoiding the defects such as deviation of ribbon and cold soldering



Shingled Module

### Higher generation by shadow

When the shingled module is installed vertically and the single cell string is shaded, the output power of the shingled module can reach 86.65% of the normal operation. That's 35% more power than the half-cell module.



### Better snow melting ability

Vertical installation, shingled module cells series and parallel structure, as soon as the snow on one string of cells melts, the module is ready to work, the temperature rise during work further accelerates snow melting. It can effectively increase module power generation time.



Shingled Module





Normal Module

Normal Module

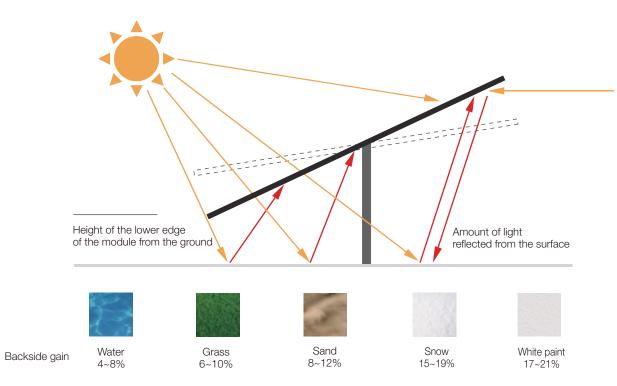


Normal Module

# **Bifacial Technology**

### Double-sided generation, powerfully energy boost:

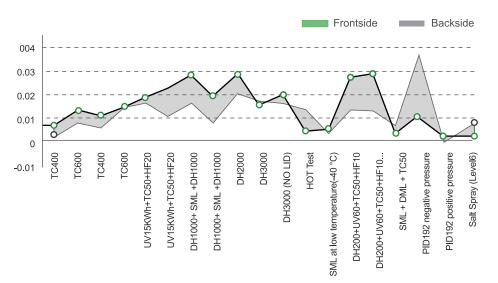
Fully utilizing the reflection and scattering of light, applying to highly reflective scenes such as water, sand, grass and white painted ground. With various types of brackets, more power is obtained, under lower kilowatt-hour costs.



Note: Using the tracker as an example

### High reliability:

Bifacial modules demonstrate superior long-term reliability, higher quality, and create more value.



Long-term reliability of bifacial modules

# **MBB** Technology

### Redusing string and increasing energy:

An increase in the number of busbar shortens the lateral current collection path, decreases the componets Rs(series resistance), and increases the output power.



Common Cell

### Reducing busbar loss:

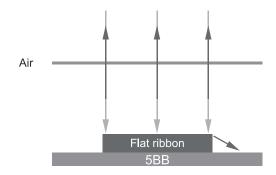
The busbars are more densely distributed, reducing loss.



Common Cell

### Improving efficiency:

The circular ribbon reduces the shading area and repeatedly reflects the incident light to enhance the power generation.



Common Cell

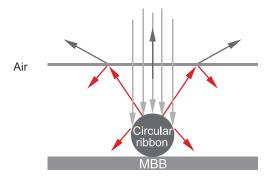
Note: Using the 166mm HEX5 bifacial module as example



MBB Cell



MBB Cell



MBB Cell



Bluesun HEX series, represents our half-cell product line, which differs in waffer sizes respecitively from 166mm to 210mm. HEX series includes HEX4 for 166mm, HEX5 for 182mm and HEX6 for 210mm.

# HEX4 MONOFACIAL

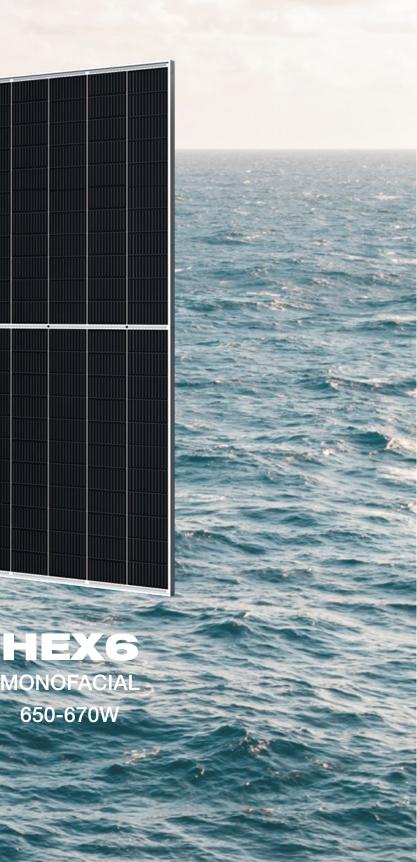
365-375W 435-455W

and the

# HEX5

MONOFACIAL 405-425W 540-560W BIFACIAL 540-560W

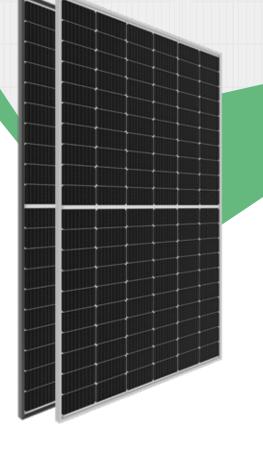
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# HEX<sub>4</sub>

### SPECIFICATIONS

Module Type		BSM355M-60HPH		BSM360M-60HPH		BSM365M-60HPH		BSM370M-60HPH		BSM375M-60HPH	
		STC	NMOT								
Maximum Power	(Pmax/W)	355	264	360	268	365	271	370	275	375	278
Operating Voltage	(Vmp/V)	34.0	31.4	34.3	31.6	34.6	31.9	34.9	32.1	35.2	32.3
Operating Current	(Imp/A)	10.45	8.43	10.50	8.46	10.56	8.50	10.61	8.55	10.66	8.60
Open-Circuit Voltage	(Voc/V)	40.5	37.7	40.7	37.9	40.9	38.0	41.1	38.2	41.3	38.4
Short-Circuit Current	(Isc/A)	11.10	8.96	11.15	9.00	11.20	9.04	11.26	9.09	11.31	9.13
Module Efficiency	ηm(%)	19	.3	19	.6	19.	.8	20	.1	2	D.4



SOI AR

PLUESUN

Your Best PV Supplier

# 166 MONOFACIAL MODULE

www.bluesunpv.com

# **BSM375M-60HPH** 355~375W **HALF CELL PERC**

to 20.4 %

coastline

PID PID Resistance

materials control

### **BLUESUN SOLAR CO., LTD**

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### PERFORMANCE WARRANTY

- Enhanced Product Warranty on Materials and Workmanship.
- 25 Linear Power Performance Warranty\*
- Annual Degradation Over 25 years no more than 0.55%



### 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 / UL 61730 / CE



### THE IDEAL SOLUTION FOR:



Extended wind and snow load tests JIL Module certified to withstand extreme wind (2400 Pa) and snow loads (5400 Pa)

Excellent weak light performance

as cloudy, morning and sunset

High module conversion efficiency

Withstanding harsh environment

MBB Half Cell Technology, Module efficiency up

Reliable quality leads to a better sustainability even in harsh environment like desert, farm and

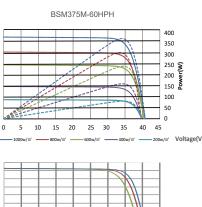
Excellent Anti-PID performance guarantee via

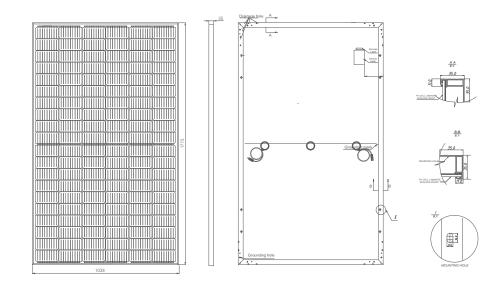
More power output in weak light condition, such

optimized mass-production process and

I-V CURVE

11.0 10.5 **ENGINEERING DRAWINGS** 





### MECHANICAL SPECIFICATION

Cell Type	Monocrystalline
Cell Dimensions	166*166mm
Cell Arrangement	120 (6*20)
Weight	21.0kg
Module Dimensions	1755 *1038*35mm
Cable Length	Portrait 300mm/Landscape 1200mm/Customized
Cable Cross Section Size	TUV: 4mm²(0.006inches²)/UL: 12AWG
Front Glass	3.2mm (0.13inches) AR Coating Tempered Glass
No. of Bypass Diodes	3
Packing Configuration	31pcs/carton, 832pcs/40hq
Frame	Anodized Aluminium Alloy

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

### **BLUESUN SOLAR CO., LTD**

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### BLUESUN SOLAR CO., LTD

Tel:+86 (158) 5821 3997 Fax:+86 (551) 6565 2651 Add: 1499 Zhenxing Road, Shushan District, 230031 Hefei. Chin

\*Release BSMXXM-60HPH(355-375W)-2022-07-Rev02-EN

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

### **OPERATING CONDITIONS**

Maximun System Voltage	1000V/1500V/DC(IEC)
Operating Temperature	-40°C~ +85°C
Maximun Series Fuse	20A
Static Loading	Snow Loading: 5400Pa/ Wind Loading: 2400Pa
Conductivity at Ground	≤0.1Ω
Safety Class	Ш
Resistance	≥100MΩ
Connector	T01/LJQ-3-CSY/MC4/MC4-EVO2

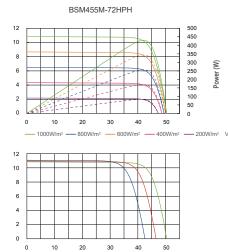
Temperature Coefficient Pmax	-0.36%/°C
Temperature Coefficient Voc	-0.26%/°C
Temperature Coefficient Isc	+0.043%/°C
NMOT	43±2°C

# HEX<sub>4</sub>

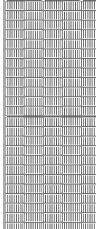
### **SPECIFICATIONS**

Module Type		BSM435M-72HPH		BSM440M-72HPH		BSM445M-72HPH		BSM450M-72HPH		BSM455M-72HPH	
		STC	NMOT	S C	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power	(Pmax/W)	435	324	440	328	445	332	450	335	455	339
Operating Voltage	(Vmp/V)	40.3	37.6	40.5	37.8	40.7	38.0	40.9	38.2	41.1	38.4
Operating Current	(Imp/A)	10.80	8.62	10.87	8.67	10.94	8.73	11.01	8.78	11.08	8.84
Open-Circuit Voltage	(Voc/V)	49.0	45.6	49.2	45.8	49.4	46.0	49.6	46.2	49.8	46.4
Short-Circuit Current	(lsc/A)	20.0	9.15	11.40	9.20	11.47	9.26	11.54	9.32	11.61	9.37
Module Efficiency	ηm(%)	20	.0	20	.2	20	.4	20	.7	20	0.9

**ENGINEERING DRAWINGS** 



\_\_\_\_\_ 25°C \_\_\_\_\_ 50°C \_\_\_\_\_ 75°C Voltage (V



### 1038.0±2.0

### MECHANICAL SPECIFICATION

Cell Type	Monocrystalline
Cell Dimensions	166*166mm
Cell Arrangement	144 (6*24)
Weight	25.5kg
Module Dimensions	2094*1038*35mm
Cable Length	Portrait 300mm/Landscape 1200mm/Customized
Cable Cross Section Size	TUV: 4mm²(0.006inches²)/UL: 12AWG
Front Glass	3.2mm (0.13inches) AR Coating Tempered Glass
No. of Bypass Diodes	3
Packing Configuration	31pcs/carton, 704pcs/40hq
Frame	Anodized Aluminium Alloy
Junction Box	IP68

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SOLAR

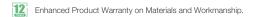
BLUESUN

Your Best PV Supplier

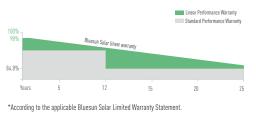
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### PERFORMANCE WARRANTY



- Linear Power Performance Warranty\*
- Annual Degradation Over 25 years no more than 0.55%



### 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 / UL 61730 / INMETRO

CE 

### THE IDEAL SOLUTION FOR:

Rooftop arrays on residential buildings Ground-mounted solar power plants

### High module conversion efficiency MBB Half Cell Technology, Module efficiency up to 20.9 %

Withstanding harsh environment Reliable quality leads to a better sustainability

even in harsh environment like desert, farm and coastline

optimized mass-production process and materials control

More power output in weak light condition, such as cloudy, morning and sunset

Extended wind and snow load tests JIL Module certified to withstand extreme wind (2400 Pa) and snow loads (5400 Pa)

166 MONOFACIAL MODULE

www.bluesunpv.com

# **BSM455M-72HPH** 435~455W **HALF CELL PERC**

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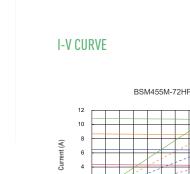
ax.+00 (331) 0303 2031	
-mail:info@bluesunpv.com	
dd:1499 Zhenxing Road, Shushan District,230031 Hefei,China	

PID PID Resistance

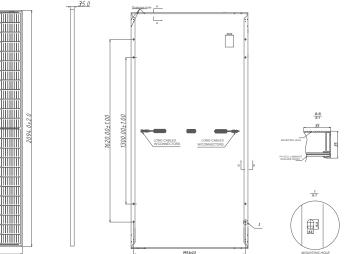
Excellent Anti-PID performance guarantee via

Excellent weak light performance





STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM1.5 NMOT: Irradiance at 800W/m<sup>2</sup>, Ambient Temperatue 20°C, Air Mass AM1.5, Wind Speed 1m/s



### **OPERATING CONDITIONS**

Maximun System Voltage	1000V/1500V/DC(IEC)
Operating Temperature	-40°C~ +85°C
Maximun Series Fuse	20A
Static Loading	Snow Loading: 5400Pa/ Wind Loading: 2400Pa
Conductivity at Ground	≤0.1Ω
Safety Class	Ш
Resistance	≥100MΩ
Connector	T01/LJQ-3-CSY/MC4/MC4-EVO2

Temperature Coefficient Pmax	-0.36%/°C
Temperature Coefficient Voc	-0.26%/°C
Temperature Coefficient Isc	+0.043%/°C
NMOT	43±2°C



# HEX 5

### SPECIFICATIONS

Module Type		BSM405G12-54HPH		BSM410G12-54HPH		BSM415G12-54HPH		BSM420G12-54HPH		BSM425G12-54HPH	
		STC	NMOT								
Maximum Power	(Pmax/W)	405	302	410	306	415	310	420	314	425	318
Operating Voltage	(Vmp/V)	31.24	29.2	31.43	29.3	31.64	29.6	31.83	29.8	32.03	30.0
Operating Current	(Imp/A)	12.97	10.36	13.05	10.42	13.13	10.48	13.21	10.54	13.29	10.60
Open-Circuit Voltage	(Voc/V)	37.25	35.10	37.50	35.30	37.75	35.50	38.00	35.70	38.25	35.90
Short-Circuit Current	(Isc/A)	13.86	11.17	13.94	11.24	14.02	11.30	14.10	11.36	14.18	11.42
Module Efficiency	ηm(%)	20	.7	21	.0	21.	.3	21	.5	2	1.7



182  $| \cdot | \Rightarrow$ 5 MONOFACIAL MODULE

# **BSM425G12-54HPH** 405~425W **HALF CELL PERC**

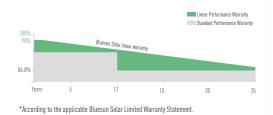
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### PERFORMANCE WARRANTY

- 12 Enhanced Product Warranty on Materials and Workmanship.
- 25 Linear Power Performance Warranty\*

Annual Degradation Over 25 years no more than 0.55%



### 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 / UL1703



### THE IDEAL SOLUTION FOR:

Rooftop arrays on residential buildings

### High module conversion efficiency

MBB Half Cell Technology, new circuit design, lower internal current, lower Rs loss

### Withstanding harsh environment

Reliable quality leads to a better sustainability even in harsh environment like desert, farm and coastline

### PID PID Resistance

<u>A</u>

Excellent Anti-PID performance guarantee via optimized mass-production process and materials control

Excellent weak light performance

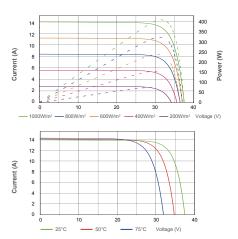
More power output in weak light condition, such as cloudy, morning and sunset

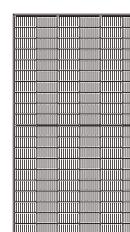
Extended wind and snow load tests JIL Module certified to withstand extreme wind (2400 Pa) and snow loads (5400 Pa)

I-V CURVE

### **ENGINEERING DRAWINGS**

### BSM410G12-54HPH





### MECHANICAL SPECIFICATION

Cell Type	Monocrystalline
Cell Dimensions	182*182mm
Cell Arrangement	108 (6*18)
Weight	21.5kg
Module Dimensions	1722*1134*30mm
Cable Length	300mm or 1200mm
Cable Cross Section Size	TUV: 4mm <sup>2</sup> (0.006inches <sup>2</sup> )/UL: 12AWG
Front Glass	3.2mm (0.13inches) AR Coating Tempered Glass
No. of Bypass Diodes	3
Packing Configuration	36pcs/carton, 936pcs/40hq(EU),828pcs/40hq(USA)
Frame	Anodized Aluminium Alloy
Junction Box	IP68

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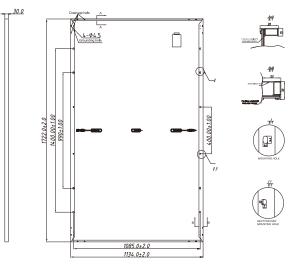
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BLUESUN SOLAR CO., LTD

Tel:+86 (158) 5821 3997 Fax:+86 (551) 6565 2651 E-mail:info@bluesunpv.com Add:1499 Zhenxing Road, Shushan District,230031 Hefei,China STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5 MOT: Irradiance at 800W/m², Ambient Temperatue 20°C, Air Mass AM1.5, Wind Speed 1m/s





### **OPERATING CONDITIONS**

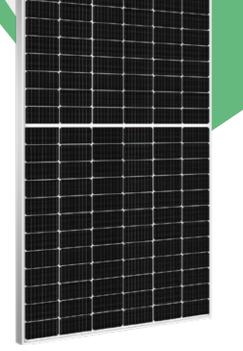
Maximun System Voltage	1000V/1500V/DC(IEC)
Operating Temperature	-40°C~ +85°C
Maximun Series Fuse	25A
Static Loading	Snow Loading: 5400Pa/ Wind Loading: 2400Pa
Conductivity at Ground	≤0.1Ω
Safety Class	Ш
Resistance	≥100MΩ
Connector	T01/LJQ-3-CSY/MC4/MC4-EVO2

Temperature Coefficient Pmax	-0.35%/°C
Temperature Coefficient Voc	-0.26%/°C
Temperature Coefficient Isc	+0.048%/°C
NMOT	43±2°C

# HEX 5

### SPECIFICATIONS

Module Type		BSM540N	110-72HPH	BSM545N	110-72HPH	BSM550M10-72HPH BSM555M10-72HPH		BSM560M10-72HPH			
		STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power	(Pmax/W)	540	402	545	406	550	410	555	413	560	416
Operating Voltage	(Vmp/V)	41.96	38.29	42.06	38.35	42.16	38.43	42.24	38.52	42.33	38.59
Operating Current	(Imp/A)	12.87	10.50	12.96	10.58	13.05	10.66	13.14	10.73	13.23	10.80
Open-Circuit Voltage	(Voc/V)	49.60	46.12	49.70	46.21	49.80	46.31	49.90	46.40	50.00	46.49
Short-Circuit Current	(Isc/A)	13.74	11.10	13.84	11.18	13.94	11.27	14.04	11.34	14.14	11.42
Module Efficiency	ηm(%)	20.	90	21.	10	21.3	30	21.	49	21	.68



# 182 - = 5 MONOFACIAL

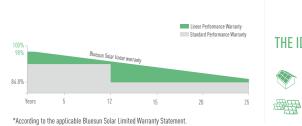
# **BSM560M10-72HPH** 540~560W **HALF CELL PERC**

### **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

- Enhanced Product Warranty on Materials and Workmanship.
- 25 Linear Power Performance Warranty\*
- Annual Degradation Over 25 years no more than 0.55%



### 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 / TUV



THE IDEAL SOLUTION FOR:

Rooftop arrays on residential buildings Ground-mounted solar power plants

### High module conversion efficiency

MBB Half Cell Technology, Module efficiency up to 21.68%

Withstanding harsh environment Reliable quality leads to a better sustainability even in harsh environment like desert, farm and coastline

### PID PID Resistance

<u>A</u>

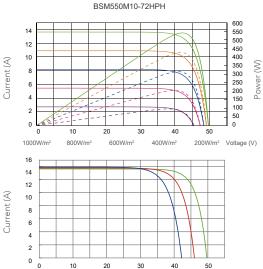
Excellent Anti-PID performance guarantee via optimized mass-production process and materials control

Excellent weak light performance More power output in weak light condition, such as cloudy, morning and sunset

Extended wind and snow load tests JIL Module certified to withstand extreme wind (2400 Pa) and snow loads (5400 Pa)

\*Release BSMXXM10-72HPH(540-560W)-2022-07-Rev02-FN

operating ourrent	(imp/A)	12.07	10.00	12.90	10
Open-Circuit Voltage	(Voc/V)	49.60	46.12	49.70	46
Short-Circuit Current	(Isc/A)	13.74	11.10	13.84	11
Module Efficiency	ηm(%)	20	.90	21	.10
		S	STC: Irradiance 100	)0W/m², Cell Ten	1perature
-V CURVE				E	NGINE
-		2011011			



50°C

### MECHANICAL SPECIFICATION

25°C

Cell Type	Monocrystalline
Cell Dimensions	182*91mm
Cell Arrangement	144 (6*24)
Weight	28.6kg
Module Dimensions	2278*1134*35mm
Cable Length	Portrait 300mm/Landscape 1200mm/Customized
Cable Cross Section Size	TUV: 4mm²(0.006inches²)/UL: 12AWG
Front Glass	3.2mm (0.13inches) AR Coating Tempered Glass
No. of Bypass Diodes	3
Packing Configuration	31pcs/carton, 620pcs/40hq
Frame	Anodized Aluminium Alloy
Junction Box	IP68

75°C Voltage (V)

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

### BLUESUN SOLAR CO., LTD

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BLUESUN SOLAR CO..LTD

Tel:+86 (158) 5821 3997 Fax:+86 (551) 6565 2651 E-mail:info@bluesunpv.com Add:1499 Zhenxing Road, Shushan District,230031 Hefei,Chini www.bluesunpv.com

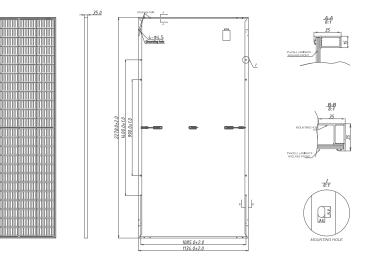


SOLAR

LUESUN

re 25°C, Air Mass AM1.5 NMOT: Irradiance at 800W/m<sup>2</sup>, Ambient Temperatue 20°C, Air Mass AM1.5, Wind Speed 1m/s

### **VEERING DRAWINGS**



### **OPERATING CONDITIONS**

Maximun System Voltage	1000/1500V/DC(IEC)
Operating Temperature	-40°C~ +85°C
Maximun Series Fuse	25A
Static Loading	Snow Loading: 5400Pa/ Wind Loading: 2400Pa
Conductivity at Ground	≤ <b>0.1</b> Ω
Safety Class	11
Resistance	≥100MΩ
Connector	T01/LJQ-3-CSY/MC4/MC4-EVO2

Temperature Coefficient Pmax	-0.36%/°C
Temperature Coefficient Voc	-0.29%/°C
Temperature Coefficient Isc	+0.048%/°C
NMOT	45±2°C



530~550W

**HALF CELL PERC** 

**BIFACIAL MODULE** 

182

# HEX 5

### SPECIFICATIONS

Module Type		BSM530N	110-72HBD	BSM535N	110-72HBD	-72HBD BSM540M10		0-72HBD BSM545M10-72HBD			BSM550M10-72HBD	
		STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	
Maximum Power	(Pmax/W)	530	395	535	398	540	402	545	406	550	410	
Operating Voltage	(Vmp/V)	41.32	38.6	41.48	38.7	41.64	38.8	41.80	39.0	41.96	39.1	
Operating Current	(Imp/A)	12.83	10.24	12.90	10.30	12.97	10.36	13.04	10.41	13.11	10.47	
Open-Circuit Voltage	(Voc/V)	49.32	46.4	49.46	46.50	49.60	46.7	49.76	46.8	49.92	47.0	
Short-Circuit Current	(Isc/A)	13.72	11.06	13.79	11.12	13.86	11.17	13.93	11.23	14.00	11.28	
Module Efficiency	ηm(%)	20	.5	20	.7	20.	9	21	.1	2	1.3	

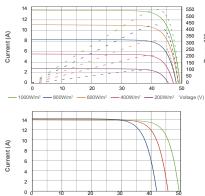
STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM1.5 NMOT: Irradiance at 800W/m<sup>2</sup>, Ambient Temperatue 20°C, Air Mass AM1.5, Wind Speed 1m/s

### Electrical characteristics with different rear side power gain (refer to 530W front)

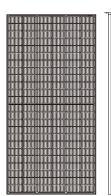
Pmax gain	Pmax/W	Vmp/V	Imp/A	Voc/V	Isc/A
5%	557	41.32	13.47	49.32	14.41
10%	583	41.32	14.11	49.32	15.09
15%	610	41.32	14.75	49.32	15.78
20%	636	41.32	15.40	49.32	16.46
25%	663	41.32	16.04	49.32	17.15

### I-V CURVE

### BSM550M10-72HBD



### **ENGINEERING DRAWINGS**



### MECHANICAL SPECIFICATION

Cell Type	Monocrystalline
Cell Dimensions	182*182mm
Cell Arrangement	144 (6*24)
Weight	32.2kg
Module Dimensions	2278*1134*35mm
Cable Length	Portrait 300mm/Landscape 1200mm/Customized
Cable Cross Section Size	TUV: 4mm²(0.006inches²)/UL: 12AWG
Front Glass	2.0 mm (0.08 inches) AR Coating Tempered Glass
Back Glass	2.0mm (0.08 inches) Glazed Semi-tempered Glass
No. of Bypass Diodes	3
Packing Configuration	31pcs/carton, 620pcs/40hq
Frame	Anodized Aluminium Alloy
Junction Box	IP68

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

### **BLUESUN SOLAR CO., LTD**

Tel:+86 (158) 5821 3997 Fax:+86 (551) 6565 2651 Add: 1499 Zhenxing Road. Shushan District. 230031 Hefei. China

### **BLUESUN SOLAR CO..LTD**

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### PERFORMANCE WARRANTY

- Enhanced Product Warranty on Materials and Workmanship.
- 30 Linear Power Performance Warranty\*
- Annual Degradation Over 30 years no more than 0.45%



### 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 / UL 61730



### THE IDEAL SOLUTION FOR:

Ground-mounted solar power plants

High module conversion efficiency Bifacial MBB Half Cell technology, up to 25% more yield depends on different conditions

### Withstanding harsh environment

Reliable quality leads to a better sustainability even in harsh environment like desert, farm and coastline

**PID** PID Resistance

**BSM550M10-72HBD** 

Excellent Anti-PID performance guarantee via optimized mass-production process and materials control

Excellent weak light performance

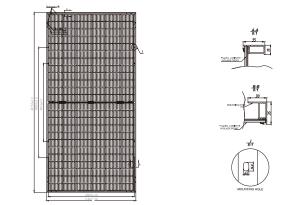
More power output in weak light condition, such as cloudy, morning and sunset

Extended wind and snow load tests JIL Module certified to withstand extreme wind (2400 Pa) and snow loads (5400 Pa)

\*Release BSMXXM10-72HBD(530-550W)-2022-07-Rev02-FN

### **BLUESUN SOLAR CO., LTD**

Tel:+86 (158) 5821 3997 Fax:+86 (551) 6565 2651 -mail:info@bluesunp Add: 1499 Zhenxing Road. Shushan District. 230031 Hefei.Chin



### **OPERATING CONDITIONS**

Maximun System Voltage	1500V/DC(IEC)
Operating Temperature	-40°C~ +85°C
Maximun Series Fuse	30A
Static Loading	Snow Loading: 5400Pa/ Wind Loading: 2400Pa
Conductivity at Ground	≤0.1Ω
Safety Class	П
Resistance	≥100MΩ
Connector	T01/LJQ-3-CSY/MC4/MC4-EVO2
Backside Output Ratio*	70%±5%
*Under STC: Backside Ouput Ratio= P <sub>ma</sub>	ux(rear) /P max(front)
TEMPERATURE COEFFICIEN	Г
Temperature Coefficient Pmax	-0.35%/°C
Temperature Coefficient Voc	-0.26%/°C
Temperature Coefficient Isc	+0.048%/°C
NMOT	43±2°C



# HEX 6

### SPECIFICATIONS

Module Type		BSM6500	G12-66HPH	BSM6550	BSM655G12-66HPH		BSM660G12-66HPH		BSM665G12-66HPH		BSM670G12-66HPH	
		STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	
Maximum Power	(Pmax/W)	650	492	655	496	660	500	665	504	670	509	
Operating Voltage	(Vmp/V)	37.4	34.9	37.6	35.1	37.8	35.3	38.0	35.5	38.2	35.7	
Operating Current	(Imp/A)	17.38	14.09	17.42	14.13	17.46	14.18	17.50	14.22	17.54	14.27	
Open-Circuit Voltage	(Voc/V)	45.2	42.6	45.4	42.8	45.6	43.0	45.8	43.2	46.0	43.4	
Short-Circuit Current	(Isc/A)	18.46	14.85	18.50	14.88	18.55	14.92	18.60	14.96	18.65	15.00	
Module Efficiency	ηm(%)	20	.9	21	.0	21	.2	21	.4	2	1.5	

### 210 6 MONOFACIAL MODULE

# **BSM670G12-66HPH** 650~670W **HALF CELL 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

- Enhanced Product Warranty on Materials and Workmanship.
- 25 Linear Power Performance Warranty\*
- Annual Degradation Over 25 years no more than 0.55%



### 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: Ground-mounted solar

power plants

- High module conversion efficiency MBB Half Cell Technology, Module efficiency up to 21.5%
  - Withstanding harsh environment

Reliable quality leads to a better sustainability even in harsh environment like desert, farm and coastline

PID PID Resistance

Excellent Anti-PID performance guarantee via optimized mass-production process and materials control

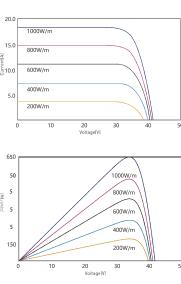
<u>A</u> Excellent weak light performance

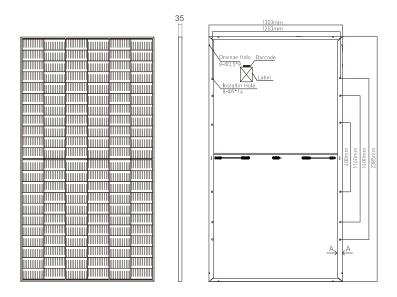
- More power output in weak light condition, such as cloudy, morning and sunset
- Extended wind and snow load tests JIL Module certified to withstand extreme wind (2400 Pa) and snow loads (5400 Pa)

I-V CURVE

### ENGINEERING DRAWINGS

BSM670G12-66HPH





### MECHANICAL SPECIFICATION

Cell Type	Monocrystalline
Cell Dimensions	210*210mm
Cell Arrangement	132 (6*22)
Weight	35.7kg
Module Dimensions	2385*1303*35mm
Cable Length	Portrait 300mm/Landscape 1200mm/Customized
Cable Cross Section Size	TUV: 4mm²(0.006inches²)/UL: 12AWG
Front Glass	3.2mm (0.13inches) AR Coating Tempered Glass
No. of Bypass Diodes	3
Packing Configuration	31pcs/carton, 558pcs/40hq
Frame	Anodized Aluminium Alloy
Junction Box	IP68

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

### BLUESUN SOLAR CO., LTD

Tel:+86 (158) 5821 3997 Fax:+86 (551) 6565 2651 xing Road. Shushan District 230031 Hefei Chin

\*Release BSMXXG12-66HPH(650-670W)-2022-07-Rev02-EN

**BLUESUN SOLAR CO., LTD** 

Fel:+86 (158) 5821 3997 Fax:+86 (551) 6565 2651 Add 1499 Zhenxing Road, Shushan District 230031 Hefei Chin STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM1.5 NMOT: Irradiance at 800W/m<sup>2</sup>, Ambient Temperatue 20°C, Air Mass AM1.5, Wind Speed 1m/s

### **OPERATING CONDITIONS**

Maximun System Voltage	1500V/DC(IEC)
Operating Temperature	-40°C~ +85°C
Maximun Series Fuse	30A
Static Loading	Snow Loading: 5400Pa/ Wind Loading: 2400Pa
Conductivity at Ground	≤ <b>0.1</b> Ω
Safety Class	Ш
Resistance	≥100MΩ
Connector	T01/LJQ-3-CSY/MC4/MC4-EVO2

Temperature Coefficient Pmax	-0.35%/°C
Temperature Coefficient Voc	-0.26%/°C
Temperature Coefficient Isc	+0.048%/°C
NMOT	43±2°C



Bluesun QUAD series, represents our shingled cell product line, which differs in power range respecitively from 400W-700W. QUAD series includes QUAD BLACK for All Black Shingled Modules, QUAD PRO for 500-600W Modules and QUAD ULTRA for 600-700W Modules.



ALL BLACK 400-415W 420-440W

# **QUAD PRO**

**N-TYPE HJT** 570-590W

# **QUAD ULTRA**







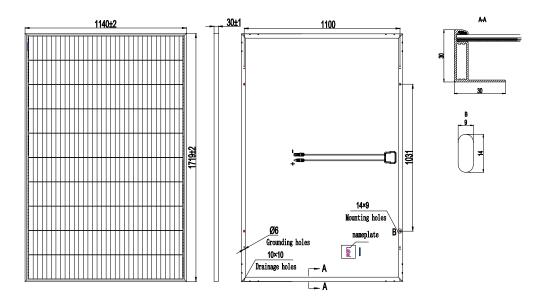
# QUAD BLACK

### SPECIFICATIONS

Module Type		BSM395PM5-60SB		5-60SB BSM400PM5-60SB		BSM405PM5-60SB		BSM410PM5-60SB		BSM415PM5-60SB	
		STC	NMOT	STC	NMOT	MOT STC NMOT		STC	NMOT	STC	NMOT
Maximum Power	(Pmax/W)	395	297	400	301	405	305	410	309	415	312
Operating Voltage	(Vmp/V)	38.5	36.7	38.6	36.8	38.7	36.9	38.8	37.0	38.9	37.1
Operating Current	(Imp/A)	10.26	8.10	10.36	8.18	10.47	8.27	10.57	8.35	10.67	8.43
Open-Circuit Voltage	(Voc/V)	46.3	44.1	46.4	44.2	46.5	44.3	46.6	44.4	46.7	44.5
Short-Circuit Current	(lsc/A)	10.92	8.81	10.97	8.85	11.02	8.89	11.07	8.93	11.12	8.97
Module Efficiency	ηm(%)	20.2		20.4		20	.7	20	).9	2	1.2

### I-V CURVE

ENGINEERING DRAWINGS

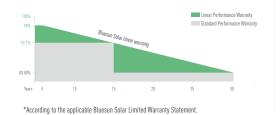


### **BLUESUN SOLAR CO., LTD**

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### PERFORMANCE WARRANTY

- Enhanced Product Warranty on Materials and Workmanship.
- 30 Linear Power Performance Warranty\*
- Annual Degradation Over 30 years no more than 0.55%



### 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

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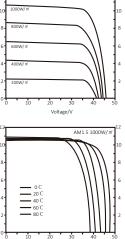
bonding, high-density layout

Beautiful Apperance (☆

### Superior safety and Reliability 井 No hidden welding crack, low operating temperature, high pressure resistance

Low System Cost High module efficiency, reducing system cost

Low Shading Loss Full parallel arrangement brings high effective power generation hours



### MECHANICAL SPECIFICATION

Voltage A

Cell Type	Mono-crystalline solar cell
Weight	21.0kg
Module Dimensions	1719*1140*30mm
Cable Length	1200mm
Cable Cross Section Size	TUV: 4mm²(0.006inches²)/UL: 12AWG
Front Glass	3.2mm (0.13inches) AR Coating Tempered Glass
Front Glass No. of Bypass Diodes	3.2mm (0.13inches) AR Coating Tempered Glass 3
No. of Bypass Diodes	3

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

### BLUESUN SOLAR CO., LTD

Tel:+86 (158) 5821 3997 Fax:+86 (551) 6565 2651

### \*Release BSMXXPM5-60SB(395-415W)-2022-07-Rev02-EN

Innovative structure, low -temperature adhesive

Deep black, uniform layout, better aesthetic

Tel:+86 (158) 5821 3997 Fax:+86 (551) 6565 2651 Add: 1499 Zhenxing Road. Shushan District. 230031 Hefei.China

BLUESUN SOLAR CO., LTD

# **CUP**BLACK

MONOFACIAL MODULE **BSM415PM5-60SB** 

> 395~415W **SHINGLED PERC**

STC: Irradiance 1000W/m<sup>2</sup>. Cell Temperature 25°C. Air Mass AM1.5 NMOT: Irradiance at 800W/m<sup>2</sup>. Ambient Temperature 20°C. Air Mass AM1.5. Wind Speed 1m/s

### **OPERATING CONDITIONS**

Maximun System Voltage	1500/1000V DC(IEC)
Operating Temperature	-40°C~ +85°C
Maximun Series Fuse	20A
Static Loading	Snow Loading: 5400Pa/ Wind Loading: 2400Pa
Conductivity at Ground	≤ <b>0.1</b> Ω
Safety Class	П
Resistance	≥100MΩ
Connector	T01/LJQ-3-CSY/MC4/MC4-EVO2

Temperature Coefficient Pmax	-0.34%/°C
Temperature Coefficient Voc	-0.27%/°C
Temperature Coefficient Isc	+0.04%/°C
NMOT	42.3±2°C



**CUP**BLACK

MONOFACIAL MODULE

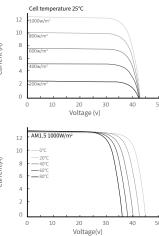
# **QUAD** BLACK

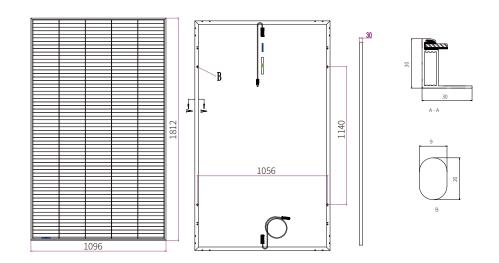
### SPECIFICATIONS

Module Type		BSM420P	PMB7-46SC	BSM425P	MB7-46SC	BSM430P	MB7-46SC	BSM435PI	MB7-46SC	BSM440PMB7-46SC	
		STC NMOT STC NMOT		STC	NMOT	STC	NMOT	STC	NMOT		
Maximum Power	(Pmax/W)	420	316	425	320	430	324	435	328	440	332
Operating Voltage	(Vmp/V)	34.5	32.9	34.6	33.0	34.7	33.1	34.8	33.2	34.9	33.3
Operating Current	(Imp/A)	12.19	9.62	12.30	9.70	12.39	9.79	12.50	9.88	12.60	9.97
Open-Circuit Voltage	(Voc/V)	41.6	39.7	41.7	39.8	46.8	39.9	46.9	40.0	47.0	40.1
Short-Circuit Current	(Isc/A)	12.92	10.41	13.03	10.50	13.14	10.60	13.26	10.71	13.37	10.82
Module Efficiency	ηm(%)	21.1		21.1 21.4		21.	.7	21	.9	22.2	

### 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: 4mm² (0.006inches² )/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

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

<b>420~440W</b>	Current(A)	12 - AM1.51000W/m 10	12
SHINGLED PERC	Ū	4 - 2 - 0 0 10	20 30 Voltage(v)

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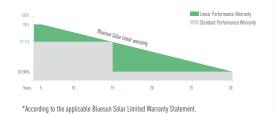
### PERFORMANCE WARRANTY

- Enhanced Product Warranty on Materials and Workmanship.
- 30 Linear Power Performance Warranty\*

BLUESUN SOLAR CO., LTD Tel:+86 (158) 5821 3997 Fax:+86 (551) 6565 2651

Add:1499 Zhenxing Road, Shushan District,230031 Hefei,China

Annual Degradation Over 30 years no more than 0.55%



### 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

All Black

IEC 61215 / IEC 61730 / CE



### THE IDEAL SOLUTION FOR:

Rooftop arrays on residential buildings

### Shingled Technology

( 🖸

**BSM440PMB7-46SC** 

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

Beautiful Apperance (☆ Deep black, uniform layout, better aesthetic

Compact Design ΞF Upto 440Wp output within 2m<sup>2</sup>, perfect for residential rooftop

Low System Cost (<u>|~</u> High module efficiency, reducing system cost

Low Shading Loss Full parallel arrangement brings high effective power generation hours

### BLUESUN SOLAR CO., LTD

Tel:+86 (158) 5821 3997 Fax:+86 (551) 6565 2651 . Add:1499 Zhenxing Road, Shushan District,230031 Hefei,China

### \*Release BSMXXPMB7-46SC(420-440W)-2022-07-Rev02-FN

STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM1.5 NMOT: Irradiance at 800W/m<sup>2</sup>, Ambient Temperatue 20°C, Air Mass AM1.5, Wind Speed 1m/s

### **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	≤ <b>0.1</b> Ω
Safety Class	П
Resistance	≥100MΩ
Connector	T01/LJQ-3-CSY/MC4/MC4-EVO2

Temperature Coefficient Pmax	-0.34%/°C
Temperature Coefficient Voc	-0.27%/°C
Temperature Coefficient Isc	+0.04%/°C
NMOT	42.3±2°C



**BSM480PM5-78SA** 

MONOFACIAL MODULE

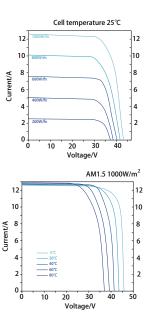
# **QUAD** BLACK

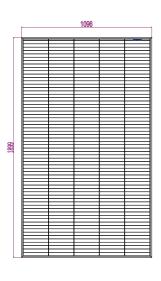
### SPECIFICATIONS

Module Type		BSM470PM5-78SA		BSM475PM5-78SA		BSM480PM5-78SA		BSM485PM5-78SA		BSM490PM5-78SA	
		STC	NMOT	STC NMOT		STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power	(Pmax/W)	470	355	475	359	480	363	485	367	490	371
Operating Voltage	(Vmp/V)	36.90	35.20	37.00	35.30	37.10	35.40	37.20	35.50	37.30	35.60
Operating Current	(Imp/A)	12.74	10.09	12.84	10.17	12.95	10.26	13.05	10.34	13.15	10.43
Open-Circuit Voltage	(Voc/V)	44.30	42.30	44.40	42.40	44.50	42.50	44.60	42.60	44.70	42.70
Short-Circuit Current	(Isc/A)	13.56	10.95	13.67	11.04	13.78	11.13	13.89	11.22	13.99	11.31
Module Efficiency	ηm(%)	22.60		22.80		23.	10	23.	30	23.50	

### I-V CURVE

**ENGINEERING DRAWINGS** 





### **MECHANICAL SPECIFICATION**

Cell Type	Monocrystalline Perc
Weight	21.8kg
Module Dimensions	1899*1096*30mm
Cable Length	+500mm/-1100(Vertical) +250mm/-150mm(Horizontal)
Cable Cross Section Size	TUV: 4mm <sup>2</sup> (0.006inches <sup>2</sup> )/UL: 12AWG
Front Glass	3.2mm (0.13inches) AR Coating Tempered Glass
No. of Bypass Diodes	3
Packing Configuration	36pcs/carton, 864pcs/40hq
Frame	Anodized Aluminium Alloy
Junction Box	IP68

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

### **BLUESUN SOLAR CO., LTD**

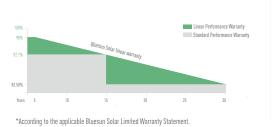
Tel:+86 (158) 5821 3997 Fax:+86 (551) 6565 2651 Add:1499 Zhenxing Road. Shushan District 230031 Hefei.China

# **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

- Enhanced Product Warranty on Materials and Workmanship
- 30 Linear Power Performance Warranty\*
- Annual Degradation Over 30 years no more than 0.55%



### **BLUESUN SOLAR CO., LTD**

Tel:+86 (158) 5821 3997 Fax:+86 (551) 6565 2651 E-mail:info@bluesunpv Add: 1499 Zhenxing Road, Shushan District, 230031 Hefei, China

### 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:

Ground-mounted solar power plants

Rooftop arrays on residential buildings

Shingled Technology with 210 cells (🛛 Innovative structure, low -temperature adhesive bonding, high-density layout

470~490W

**SHINGLED PERC** 

Beautiful Apperance Deep black, uniform layout, better aesthetic

(☆

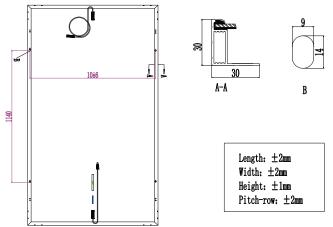
Superior safety and Reliability 뷰 No hidden welding crack, low operating temperature, high pressure resistance

Low System Cost <u>~</u> High module efficiency, reducing system cost

Low Shading Loss -Full parallel arrangement brings high effective power generation hours

\*Release BSMXXPM5-78SA(470-490W)-2022-07-Rev02-EN

STC: Irradiance 1000W/m<sup>2</sup> , Cell Temperature 25°C, Air Mass AM1.5 NMOT: Irradiance at 800W/m<sup>2</sup>, Ambient Temperatue 20°C, Air Mass AM1.5, Wind Speed 1m/s



### **OPERATING CONDITIONS**

Maximun System Voltage	1500V 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	11
Resistance	≥100MΩ
Connector	T01/LJQ-3-CSY/MC4/MC4-EVO2

Temperature Coefficient Pmax	-0.34%/°C
Temperature Coefficient Voc	-0.27%/°C
Temperature Coefficient Isc	+0.04%/°C
NMOT	42.3±2°C



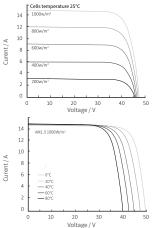
# **QUAD** PRO

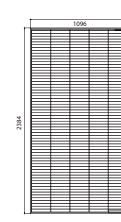
### SPECIFICATIONS

Module Type		BSM570PMB6-60SC BSM575		BSM575P	MB6-60SC	BSM580P	BSM580PMB6-60SC		BSM585PMB6-60SC		BSM590PMB6-60SC	
		STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	
Maximum Power	(Pmax/W)	570	426	575	434	580	438	585	442	590	446	
Operating Voltage	(Vmp/V)	39.5	37.50	39.60	37.70	39.70	37.80	39.80	37.90	39.90	38.00	
Operating Current	(Imp/A)	14.44	11.36	14.53	11.52	14.62	11.59	14.71	11.67	14.80	11.74	
Open-Circuit Voltage	(Voc/V)	47.50	45.20	47.60	45.40	47.70	45.50	47.80	45.67	47.90	45.70	
Short-Circuit Current	(lsc/A)	15.36	12.30	15.46	12.46	15.56	12.55	15.65	12.63	15.75	12.71	
Module Efficiency	ηm(%)	21.	60	22.	00	22.2	20	22.	40	22.	60	

I-V CURVE

ENGINEERING DRAWINGS





### MECHANICAL SPECIFICATION

Cell Type	Mono-crystalline solar cell
Cell Dimensions	210*210mm
Cell Orientation	345 (69*5)
Weight	28.3kg
Module Dimensions	2384*1096*35mm
Cable Length	Portrait 300mm/Landscape 1200mm/Customized
Cable Cross Section Size	TUV: 4mm²(0.006inches²)/UL: 12AWG
Front Glass	3.2mm (0.13inches) AR Coating Tempered Glass
No. of Bypass Diodes	3
Packing Configuration	31pcs/carton, 620pcs/40hq
Frame	Anodized Aluminium Alloy
Junction Box	IP68

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

### **BLUESUN SOLAR CO., LTD**

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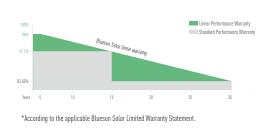
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### PERFORMANCE WARRANTY



- 30 Linear Power Performance Warranty\*
- Annual Degradation Over 30 years no more than 0.55%



### 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:

Ground-mounted solar 単田 power plants

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

570~590W

**SHINGLED PERC** 

Beautiful Apperance (☆ Uniform layout, better aesthetic

Shingled Technology

**011** 

BSM585PMB6-60SC

- Superior safety and Reliability 쁥
- High module efficiency, reducing system cost
- Low Shading Loss ~~ Full parallel arrangement brings high effective power generation hours

### **BLUESUN SOLAR CO., LTD**

Tel:+86 (158) 5821 3997 Fax:+86 (551) 6565 2651 E-mail:info@bluesunpv. Add:1499 Zhenxing Road, Shushan District,230031 Hefei,China

\*Release BSMXXPMB6-60SC(570-590W)-2022-07-Rev02-FN

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

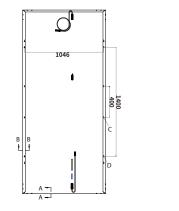
Low System Cost

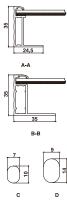
# **PRO** MONOFACIAL

		Cells temperature 25 C	
	14	. 1000w/m <sup>2</sup>	
	12	800w/m <sup>2</sup>	
<	10	· · · · · · · · · · · · · · · · · · ·	
Curent / A	8	600w/m²	
Cure	6	400w/m <sup>2</sup>	
	4		
	2	200w/m <sup>2</sup>	
	0		
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	14	AM1.5 1000W/m <sup>2</sup>	
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Curent / A			
Curent	6		
Curent,	6 4	20°C 40°C 60°C	

STC; Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM1.5 NMOT: Irradiance at 800W/m<sup>2</sup>, Ambient Temperatue 20°C, Air Mass AM1.5. Wind Speed 1m/s







### **OPERATING CONDITIONS**

Maximun System Voltage	1500V/DC(IEC)
Operating Temperature	-40°C~ +85°C
Maximun Series Fuse	25A
Static Loading	Snow Loading: 5400Pa/ Wind Loading: 2400Pa
Conductivity at Ground	≤ <b>0</b> .1Ω
Safety Class	Ш
Resistance	≥100MΩ
Connector	T01/LJQ-3-CSY/MC4/MC4-EVO2

Temperature Coefficient Pmax	-0.34%/°C
Temperature Coefficient Voc	-0.27%/°C
Temperature Coefficient Isc	+0.04%/°C
NMOT	42.3±2°C



ULTRA

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**BIFACIAL MODULE** 

# **QUAD** ULTRA

### **SPECIFICATIONS**

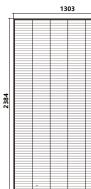
Module Type	BSM675P	MB6-70SDC	BSM680PN	4B6-70SDC	BSM685PI	4B6-70SDC	BSM690PM	IB6-70SDC	BSM695PM	B6-70SDC	BSM700PI	MB6-70SDC
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power (Pmax/W)	675	508	680	512	685	516	690	520	695	524	700	527
Operating Voltage (Vmp/V)	39.20	37.40	39.30	37.50	39.40	37.60	39.50	37.70	39.60	37.80	39.60	37.80
Operating Current (Imp/A)	17.23	13.62	17.32	13.70	17.41	13.78	17.49	13.86	17.57	13.94	17.68	14.22
Open-Circuit Voltage (Voc/V)	47.20	45.00	47.30	45.10	47.40	45.20	47.50	45.30	47.60	45.40	47.70	45.50
Short-Circuit Current (Isc/A)	18.32	14.77	18.41	14.85	18.50	14.93	18.59	15.01	18.68	15.09	18.80	14.69
Module Efficiency nm(%)	21	.90	22	.10	22	.30	22.	50	22.	60	22	.81

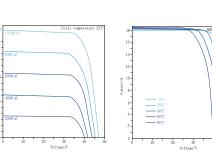
### Electrical characteristics with different rear side power gain (refer to 700W front)

Pmax gain	Pmax/W	Vmpp/V	Impp/A	Voc/V	Isc/A
5%	735	39.6	18.56	47.7	19.74
10%	770	39.6	19.45	47.7	20.68
15%	805	39.6	20.33	47.7	21.62
20%	840	39.6	21.22	47.8	22.56
25%	875	39.6	22.10	47.8	23.50

### I-V CURVE

### **ENGINEERING DRAWINGS**





BSM700PMB6-70SDS



Cell Type	N-Type Monocrystalline
Cell Dimensions	210*210mm
Weight	39.0kg
Module Dimensions	2384*1303*35mm
Cable Length	Portrait 300mm/Landscape 1200mm/Customized
Cable Cross Section Size	TUV: 4mm² (0.006inches² )/UL: 12AWG
Front Glass	2.0 mm (0.08 inches) AR Coating Tempered Glass
Back Glass	2.0mm (0.08 inches) Glazed Semi-tempered Glass
No. of Bypass Diodes	3
Packing Configuration	31pcs/carton, 558pcs/40hq
Frame	Anodized Aluminium Alloy
Junction Box	IP68

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

### **BLUESUN SOLAR CO., LTD**

E-mail:solar29@bluesunpv.com Add:1499 Zhenxing Road, Shushan District,230031 Hefei,China

# **BSM700PMB6-70SDC** 675~700W **SHINGLED PERC** BIFACIAL 210 cell N-Type

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### PERFORMANCE WARRANTY

- Enhanced Product Warranty on Materials and Workmanship.
- 30 Linear Power Performance Warranty\*

**BLUESUN SOLAR CO., LTD** 

Add:1499 Zhenxing Road, Shushan District,230031 Hefei,China

Tel:0086 157 1551 9091 Fax:+86 (551) 6565 2651

Annual Degradation Over 30 years no more than 0.45%



### 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: Ground-mounted solar power plants



**Beautiful Apperance** Uniform layout, better aesthetic

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Superior safety and Reliability No hidden welding crack, low operating temperature, high pressure resistance

Low System Cost High module efficiency, reducing system cost

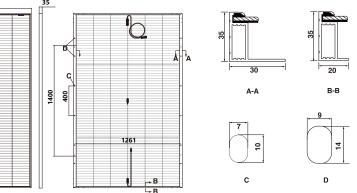
Low Shading Loss Full parallel arrangement brings high effective power generation hours

\*Release BSMXXPMB6-70SDC(675-700W)-2022-07-Rev02-FN

Tel:0086 157 1551 9091 Fax:+86 (551) 6565 2651

**MECHANICAL SPECIFICATION** 

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



### **OPERATING CONDITIONS**

Maximun System Voltage	1500V/DC(IEC)
Operating Temperature	-40°C~ +85°C
Maximun Series Fuse	30A
Static Loading	Snow Loading: 5400Pa/ Wind Loading: 2400Pa
Conductivity at Ground	≤0.1Ω
Safety Class	П
Resistance	≥100MΩ
Connector	T01/LJQ-3-CSY/MC4/MC4-EVO2
Backside Output Ratio*	70%±5%
*Under STC: Backside Ouput Ratio= P m	ax(rear) /P max(front)
TEMPERATURE COEFFICIEN	Т
Temperature Coefficient Pmax	-0.35%/°C
Temperature Coefficient Voc	-0.26%/°C
Temperature Coefficient Isc	+0.048%/°C
NMOT	43±2°C



# SOLAR Dest PV Supplier CEEER THE NOORLO

