



# HEX<sub>5</sub> BSM415M10-54HPH

**182** Bifacial Module With Transparent Backsheet  
10BB Half-cut Mono Perc

## Made In Thailand

- 🏠 **Long Beach, CA Stock**
- ⚡ **All Black, High Aesthetic**
- 🏆 **2M<sup>2</sup> Panel, Best Home Roof Fit**

- Dimensions: 1722\*1134\*30mm
- Weight: 21.5kg
- Max. System Voltage: 1000V/1500 V (IEC/UL)

### GREAT PERFORMANCE AND RELIABILITY

- ★ **10BB Half-cut Cell Technology**  
New circuit design, lower internal current, lower Rs loss  
Ga doped wafer, attenuation < 2% (1st year) / ≤ 0.55% (Linear)
- ★ **Industry Leading High Yield**  
Bifacial PERC cell technology,  
5%-25% more yield depends on different conditions
- ★ **Excellent Anti-PID Performance**  
2 times of industry standard Anti-PID test by TUV SUD
- ★ **Lower LCOE**  
2% more power generation, lower LCOE
- ★ **IP68 Junction Box**  
High waterproof level

### PERFORMANCE WARRANTY

- 12** Years Enhanced Product Warranty on Materials and Workmanship\*
- 25** Years Linear Power Performance Warranty\*  
\*According to the applicable Bluesun Solar Limited Warranty Statement.

### MANAGEMENT SYSTEM CERTIFICATES

- ISO 9001: 2015 Quality Management System
- ISO 14001: 2015 Environment Management System
- ISO 45001: 2018 Occupational Health and Safety Management Systems

### PRODUCT CERTIFICATES

- IEC 61215 / IEC 61730 / UL 61730



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US Warehouse Location: Long Beach, CA

\*Release BSM415M10-54HPH(400-420W)\_V\_23\_09

## ELECTRICAL CHARACTERISTICS

Testing Condition	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power (Pmax/W)	400	298	405	302	410	306	415	309	420	313
Operating Voltage (Vmpp/V)	31.05	29.0	31.24	29.2	31.43	29.3	31.63	29.5	31.82	29.7
Operating Current (Impp/A)	12.89	10.30	12.97	10.36	13.05	10.42	13.13	10.49	13.21	10.55
Open-Circuit Voltage (Voc/V)	37.00	34.8	37.25	35.1	37.50	35.3	37.75	35.6	38.00	35.8
Short-Circuit Current (Isc/A)	13.78	11.11	13.86	11.17	13.94	11.24	14.02	11.31	14.10	11.38
Module Efficiency (%)	20.50		20.70		21.00		21.25		21.51	

STC: Irradiance 1000W/m<sup>2</sup> Soecra at AM1.5, Module Temperature 25°C, Power output tolerance: 0~+5W, Test uncertainty for Pmax : 3%NMOT: Irradiance 800W/m<sup>2</sup>, Spectra at AM1.5, Ambient Temperature 20°C, Wind speed 1m/s

## REAR SIDE POWER GAIN(REFERENCE TO 410W FRONT)

Pmax gain	Pmax/W	Vmpp/V	Impp/A	Voc/V	Isc/A
5%	431	31.43	13.70	37.50	14.65
10%	451	31.43	14.36	37.50	15.35
15%	472	31.43	15.01	37.50	16.04
20%	492	31.43	15.66	37.50	16.74
25%	513	31.43	16.31	37.50	17.44

## MECHANICAL CHARACTERISTICS

Solar Cell	Monocrystalline 182*182mm
No. of Cells	108 (6*18)
Module Dimensions	1722*1134*30mm (67.80*44.65*1.18inches)
Weight	21.5kg (47.4lbs.)
Front Glass	3.2mm AR Coating Tempered Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68, 3 Bypass Diodes
Output Cables	4mm <sup>2</sup> (IEC), 12AWG(UL) 300mm in Length or Customized Length
Connectors	T01/LJQ-3-CSY/MC4/MC4-EVO2

## APPLICATION CONDITIONS

Maximum System Voltage	1000V/1500VDC/(IEC)
Operating Temperature	-40°C~+85°C
Maximum Series Fuse	25A
Safety Protection Class	Class II
Mechanical Load	Front side 5400Pa, Back side 2400Pa
Refer. Bifaciality Factor	70%(+5%~-10%)

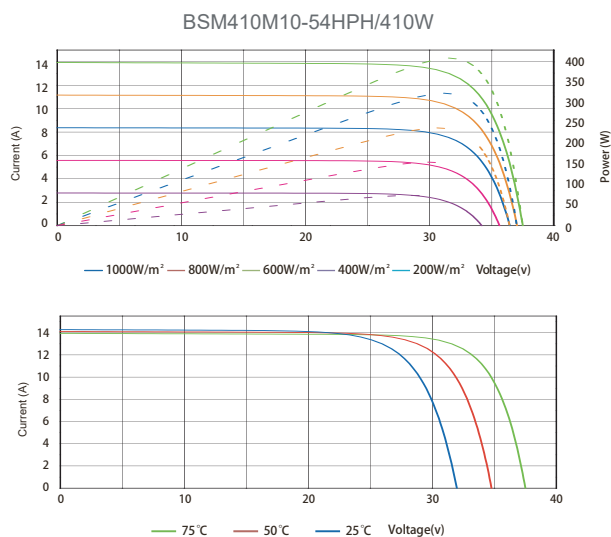
## TEMPERATURE CHARACTERISTICS

Temperature Coefficient of Pmax	-0.35%/°C
Temperature Coefficient of Voc	-0.26%/°C
Temperature Coefficient of Isc	+0.048%/°C
Nominal Module Operating Temperature(NMOT)	43±2°C

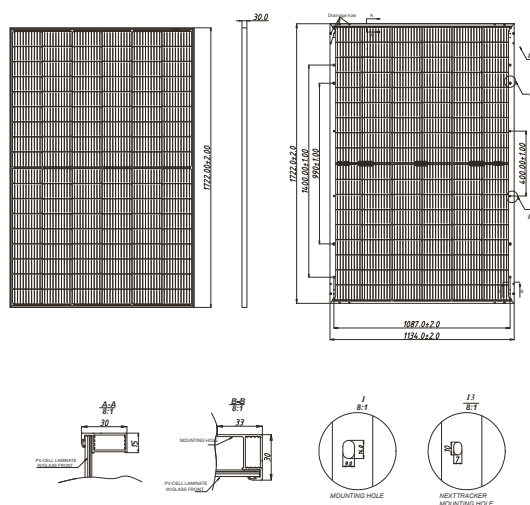
## PACKING CONFIGURATION

Pieces Per Pallet	36	36(USA)
Pieces Per Container(40'HQ)	936	828

## I-V CURVE



## TECHNICAL DRAWINGS



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