


QJA ULTRA

BSM670G12-66HBD

650~670W

BIFACIAL MODULE

BLUESUN SOLAR CO.,LTD

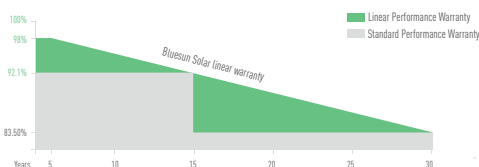
Bluesun, founded in 2004, as a superior photovoltaic manufacturer, is devoted to the R&D and the production of crystalline silicon solar cells and modules for 17 years. The company has its sales areas spread all over more than 100 countries and regions in the world, and the cumulative historical shipments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

PERFORMANCE WARRANTY

15 Enhanced Product Warranty on Materials and Work man ship.

25 Linear Power Performance Warranty*

0.55% Annual Degradation Over 25 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:



Shingled Technology

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



Beautiful Appearance

Uniform layout, better aesthetic



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

SPECIFICATIONS

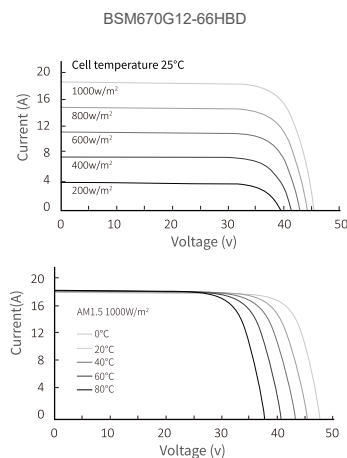
Module Type	BSM650G12-66HBD		BSM665G12-66HBD		BSM660G12-66HBD		BSM665G12-66HBD		BSM670G12-66HBD	
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power (P _{max} /W)	650	489	655	493	660	497	665	501	670	504
Operating Voltage (V _{mpp} /V)	38.7	36.9	38.8	37.0	38.9	37.1	39.0	37.2	39.1	37.3
Operating Current (I _{mpp} /A)	16.8	13.25	16.86	13.32	16.95	13.39	17.05	13.46	17.14	13.54
Open-Circuit Voltage (V _{oc} /V)	46.7	44.3	46.8	44.5	46.9	44.7	47.0	44.8	47.1	44.9
Short-Circuit Current (I _{sc} /A)	17.84	14.36	17.94	14.45	18.04	14.53	18.14	14.61	18.23	14.69
Module Efficiency η _m (%)	21.0		21.1		21.2		21.4		21.6	

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

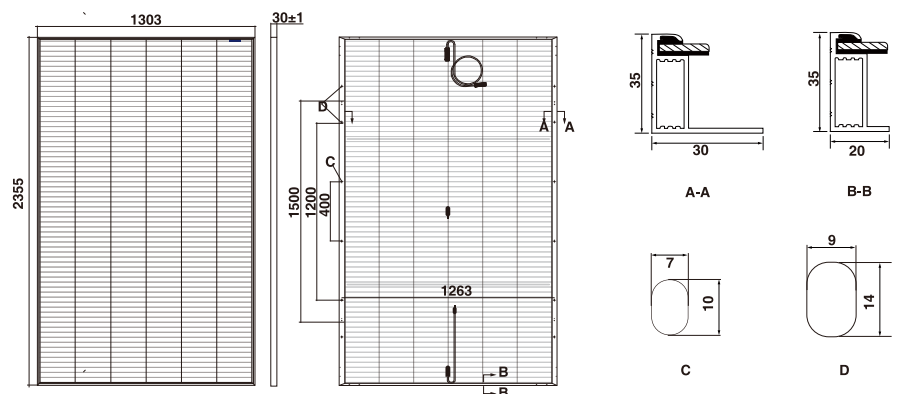
Electrical characteristics with different rear side power gain (refer to 670W front)

P _{max} gain	P _{max} /W	V _{mpp} /V	I _{mpp} /A	V _{oc} /V	I _{sc} /A
5%	683	38.2	17.80	46.1	18.93
10%	715	38.2	18.65	46.1	19.84
15%	748	38.2	19.49	46.1	20.74
20%	780	38.2	20.34	46.2	21.64
25%	813	38.2	21.19	46.2	22.54

I-V CURVE



ENGINEERING DRAWINGS



MECHANICAL SPECIFICATION

Cell Type	Monocrystalline
Cell Dimensions	210*210mm
Cell Arrangement	144 (6*24)
Weight	38.5kg
Module Dimensions	2355*1303*35mm
Cable Length	Portrait 300mm/Landscape 1200mm/Customized
Cable Cross Section Size	TUV: 4mm ² (0.006inches ²)/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

OPERATING CONDITIONS

Maximum System Voltage	1500V/DC(IEC)
Operating Temperature	-40°C~ +85°C
Maximum Series Fuse	30A
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
Backside Output Ratio*	70%±5%

*Under STC: Backside Output Ratio= P_{max(rear)} / P_{max(front)}

TEMPERATURE COEFFICIENT

Temperature Coefficient P _{max}	-0.35%/°C
Temperature Coefficient V _{oc}	-0.26%/°C
Temperature Coefficient I _{sc}	+0.048%/°C
NMOT	43±2°C

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