

BiDrive UltraMax Series

TSBHM-120HSG 590-600

Ultra High Efficiency Bifacial Mono PERC Half-cell Solar Module (210)



ABOUT BEYONDSUN

Founded in 2008, Beyondsun is the world's leading PV manufacturer and one-stop solution provider. With multiple manufacturing bases and more than 8 branches around the world, our business covers cells, modules, aluminum frame and PV projects. With its advantages of continuous technological innovation, strong financial performance, and well-established global sales and service networks, Beyondsun has been highly recognized by its global partners. Until now, Beyondsun has distributed more than 8 GW PV products to over 30 countries all over the world. We are committed to collaborate with our partners in driving renewable energy together.



ULTRA HIGH MODULE EFFICIENCY

More power output with 210 MBB mono PERC half-cut cell



MORE ENERGY YIELD

Bifacial cell, additional 5%-30% more energy yield from rear side



LOWER OPERATING TEMPERATURE, MORE RELIABLE

Lower operating temperature and hot spot temperature during the sunny day, making the module prevail during the sunny days



BETTER SHADING TOLERANCE

Thanks to paralleling circuit design, more power generated under shading condition and during morning & evening time



BETTER MICRO CRACK RESISTANCE

Minimize the impact by micro crack by limiting cell damage and potentially extending area by half-cut module architecture



1500V SYSTEM VOLTAGE

Approved IEC1500Vdc system voltage, saving on BoS cost

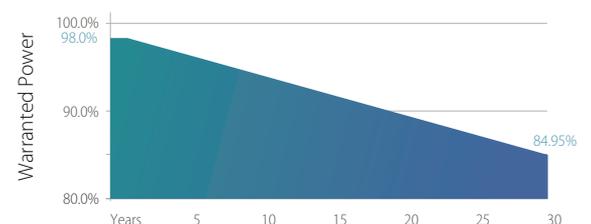
QUALIFICATIONS & CERTIFICATES

- IEC 61215 / IEC 61730
- ISO 9001: Quality Management System
- ISO 14001: Environment Management System
- OHSAS 18001: Occupational Health and Safety



INDUSTRY LEADING WARRANTY

- 30-Year** Linear Performance Warranty
- 12-Year** Product Material & Workmanship Warranty
- LLOYDS** Product & Performance Insured by LLOYD'S



THE IDEAL SOLUTION FOR



Ground-mounted projects



Commercial / industrial rooftop projects

BiDrive UltraMax Series TSBHM-120HSG 590-600

ELECTRICAL PARAMETERS

Module Type	TSBHM590-120HSG		TSBHM595-120HSG		TSBHM600-120HSG	
	STC	NMOT	STC	NMOT	STC	NMOT
Test Condition	STC	NMOT	STC	NMOT	STC	NMOT
Max. Power Output Pmax (W)	590	443	595	447	600	451
Power Tolerance	0~+3%	0~+3%	0~+3%	0~+3%	0~+3%	0~+3%
Max. Power Voltage Vmp (V)	34.47	32.11	34.66	32.28	34.85	32.47
Max. Power Current Imp (A)	17.12	13.80	17.17	13.85	17.22	13.89
Open Circuit Voltage Voc (V)	40.93	38.91	41.11	39.08	41.29	39.25
Short Circuit Current Isc (A)	18.36	14.81	18.41	14.85	18.46	14.89
Module Efficiency (%)	20.85%		21.02%		21.20%	

*STC (Standard Test Condition): Irradiance 1000W/m², Cell Temperature 25 °C, Air Mass 1.5

*NMOT (Nominal Module Operating Temperature), Irradiance of 800W/ m², Spectrum AM 1.5, Ambient Temperature 20°C, Wind Speed 1m/s

REAR SIDE POWER GAIN

5%	Maximum Power (Pmax)	620	625	630
	Module Efficiency STC (%)	21.89%	22.08%	22.26%
15% <td>Maximum Power (Pmax)</td> <td>679</td> <td>684</td> <td>690</td>	Maximum Power (Pmax)	679	684	690
	Module Efficiency STC (%)	23.97%	24.18%	24.38%
25% <td>Maximum Power (Pmax)</td> <td>738</td> <td>744</td> <td>750</td>	Maximum Power (Pmax)	738	744	750
	Module Efficiency STC (%)	26.06%	26.28%	26.50%

TEMPERATURE COEFFICIENTS

Temperature Coefficients of Pmp	-0.36%/°C
Temperature Coefficients of Voc	-0.29%/°C
Temperature Coefficients of Isc	+0.048 %/°C
NMOT	42°C±3°C

MECHANICAL PARAMETERS

Cell Type	Mono, 210×105mm
Cell Arrangement	120pcs 2×(6×10)
Dimension (L×W×H)	2172×1303×35mm
Weight	35.3kg
Front Cover / Back Cover	2.0mm AR Coating Tempered Glass / 2.0mm Heat Strengthened Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68, 3 bypass diodes
Cable	4mm ² solar cable, 450mm (customizable)
Connector	PV Connector

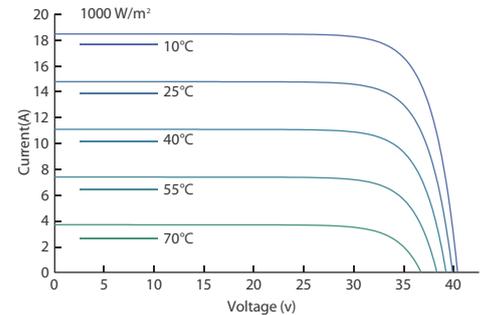
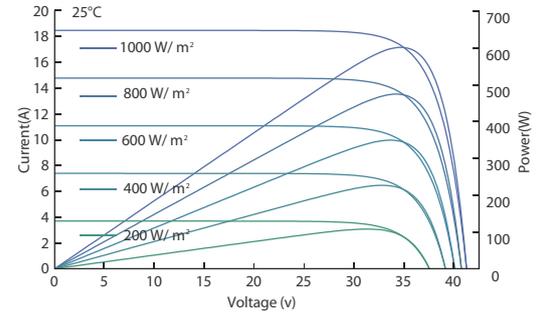
OPERATING PARAMETERS

Maximum System Voltage(V)	1500(DC)
Operating Temperature(°C)	-40~+85
Max. Wind Load / Snow Load(Pa)	2400/5400
Max. Over Current(A)	25
Application Class	Class A
Fire Rating	Class A

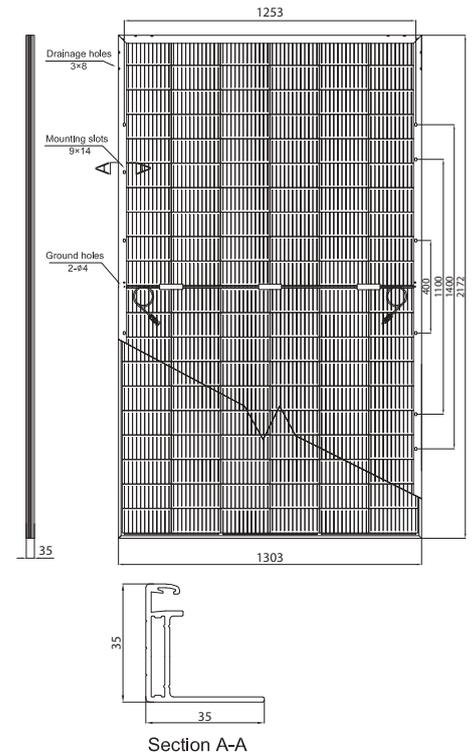
PACKAGE INFORMATION

Quantity / Pallet	31 pcs
Container 40'HQ	17 pallets, 527 pcs

I-V CURVES



TECHNICAL DRAWINGS



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