

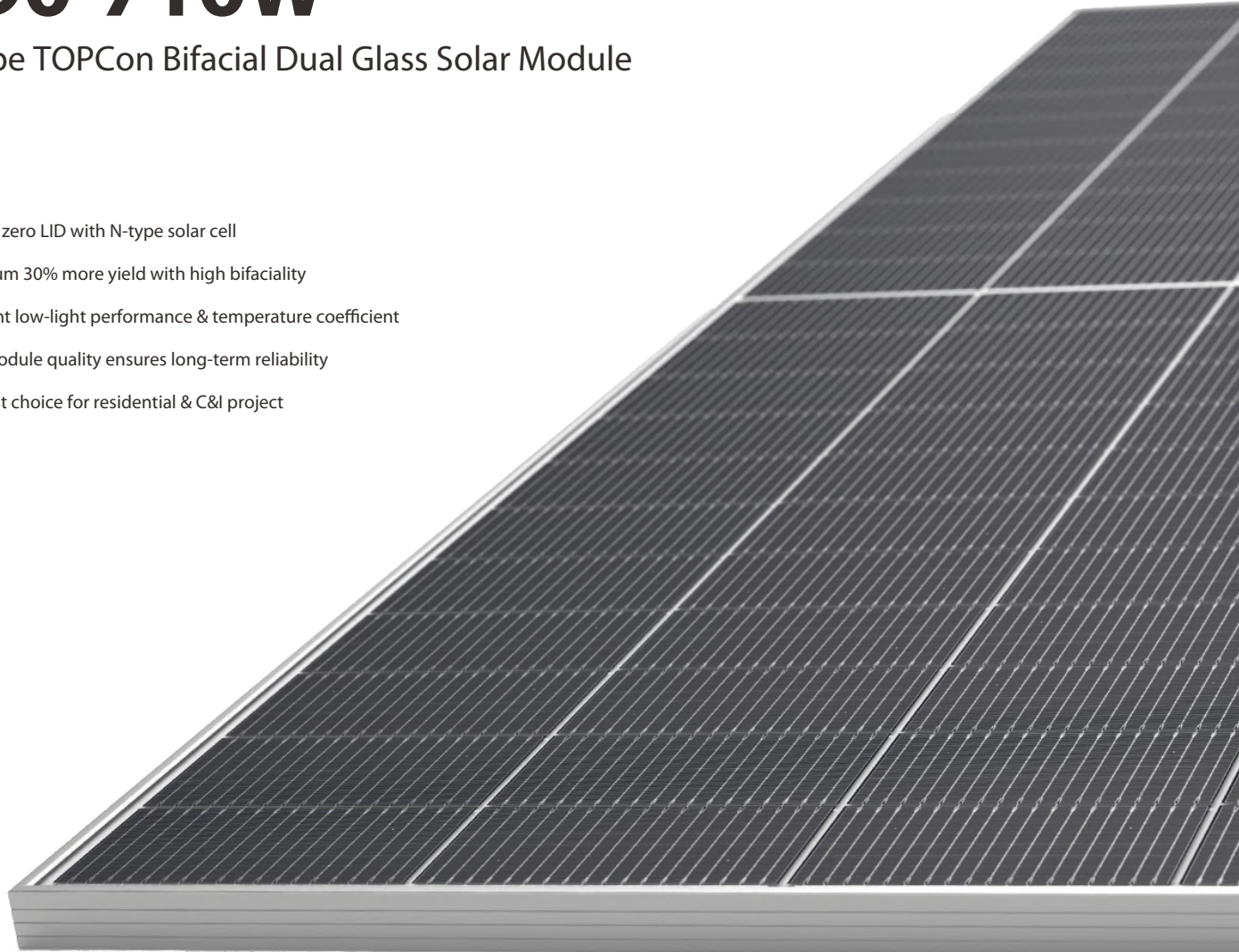


TSBHNM-132HSG

690-710W

N-type TOPCon Bifacial Dual Glass Solar Module

- Natural zero LID with N-type solar cell
- Maximum 30% more yield with high bifaciality
- Excellent low-light performance & temperature coefficient
- High module quality ensures long-term reliability
- The best choice for residential & C&I project



System & Product Certifications

IEC 61215 / IEC 61730

ISO 9001: Quality Management System

ISO 14001: Environment Management System

ISO 45001: Occupational Health and Safety

amfori BSCI Corporate Social Responsibility



Product Warranty & Insurance



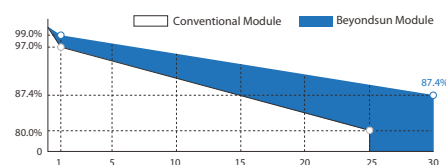
12-year Warranty for Material & Workmanship



30-year Warranty for Linear Power Output



Product & Performance Insured by LLOYDS & PingAn



The Ideal Solution for



Residential rooftop projects



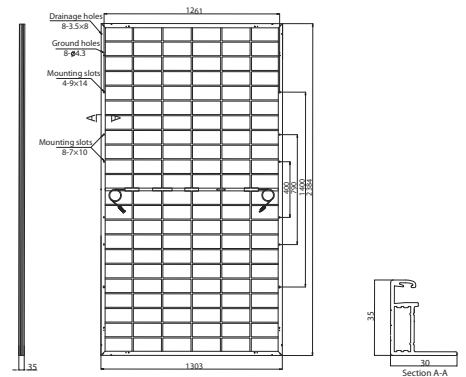
Commercial / industrial rooftop projects

POWER TSBHNM-132HSG 690-710W

Mechanical Parameters

Cell Type	N type Mono 210×105mm
Cell Arrangement	132 pcs, 2X(6×11)
Dimension (L×W×H)	2384×1303×35mm
Weight	38.7kg
Front Cover	2.0mm AR Coating Tempered Glass
Back Cover	2.0mm Heat Strengthened Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68, 3 Bypass Diodes
Cable	4mm ² , +460mm, -340mm, or customizable
Connector	PV Connector

Technical Drawings (mm)



Electrical Parameters

STC: 1000W/m², 25 °C, AM 1.5 NMOT: 800W/m², AM 1.5, 20°C, 1m/s Pmax tolerance 0~+3%

Module Type	TSBHNM690-132HSG		TSBHNM695-132HSG		TSBHNM700-132HSG		TSBHNM705-132HSG		TSBHNM710-132HSG	
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Max. Power Output Pmax (W)	690	518.9	695	522.6	700	526.4	705	530.2	710	533.9
Max. Power Voltage Vmp (V)	40.10	37.36	40.29	37.52	40.49	37.71	40.69	37.90	40.88	38.09
Max. Power Current Imp (A)	17.21	13.89	17.25	13.93	17.29	13.96	17.33	13.99	17.37	14.02
Open Circuit Voltage Voc (V)	47.85	45.46	48.05	45.65	48.25	45.84	48.45	46.03	48.65	46.22
Short Circuit Current Isc (A)	18.30	14.77	18.34	14.81	18.38	14.84	18.42	14.87	18.46	14.90
Module Efficiency (%)	22.21%		22.37%		22.53%		22.70%		22.86%	

Rear Side Power Gain

Refer. Bifaciality Factor: 70~10%

5%	Maximum Power (Pmax)	725	730	735	740	746
	Module Efficiency STC (%)	23.32%	23.49%	23.66%	23.83%	24.00%
15%	Maximum Power (Pmax)	794	799	805	811	817
	Module Efficiency STC (%)	25.54%	25.73%	25.91%	26.10%	26.28%
25%	Maximum Power (Pmax)	863	869	875	881	888
	Module Efficiency STC (%)	27.77%	27.97%	28.17%	28.37%	28.57%

Operating Parameters

Maximum System Voltage(V)	1500(DC)
Operating Temperature(°C)	-40°C ~ +85°C
Max. Wind Load / Snow Load(Pa)	2400/5400
Max. Over Current(A)	35

Temperature Coefficients

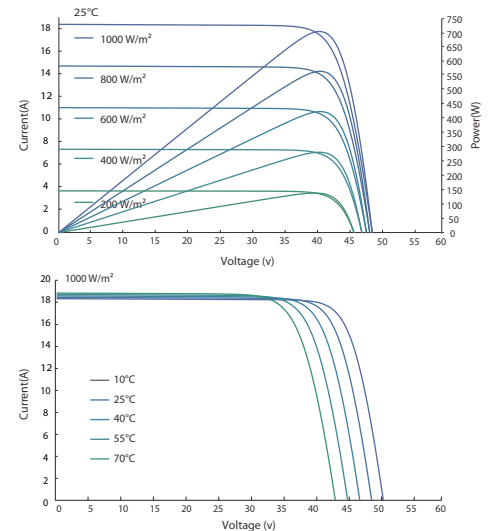
Temperature Coefficients of Pmp	-0.30%/°C
Temperature Coefficients of Voc	-0.25%/°C
Temperature Coefficients of Isc	+0.046%/°C
NMOT	45°C±3°C

Package Information

Quantity / Pallet	31 pcs
Container 40'HQ	18 pallets, 558 pcs

Patner's Notes

I-V Curves



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