

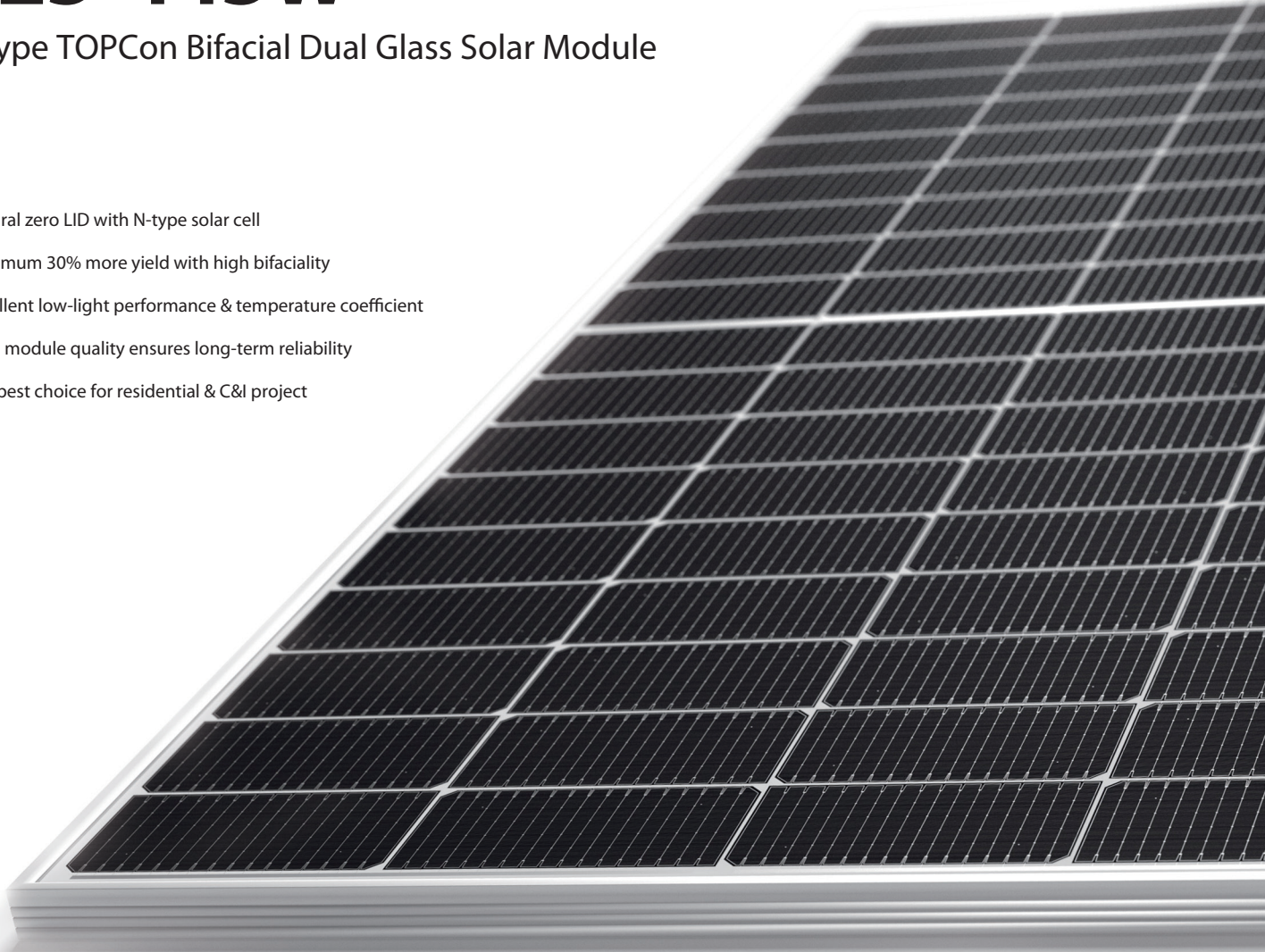


TSBHNM-108HVG

425-445W

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



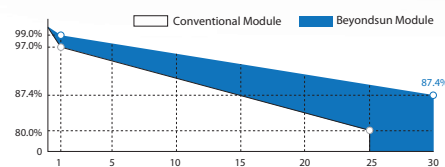
12-year Warranty for Material & Workmanship



30-year Warranty for Linear Power Output



Product & Performance Insured by LLOYD'S & PingAn



The Ideal Solution for



Residential rooftop projects



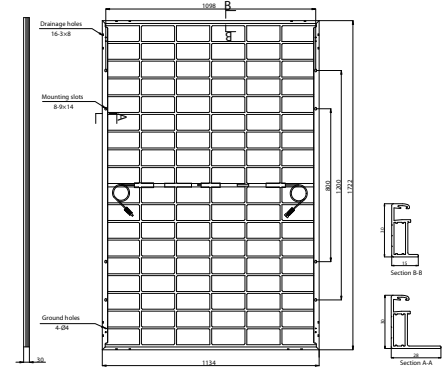
Commercial / industrial rooftop projects

POWER TSBHNM-108HVG 425-445W

Mechanical Parameters

Cell Type	N Type Mono
Cell Arrangement	108 pcs, 2x(6x9)
Dimension (LxWxH)	1722x1134x30mm
Weight	25.0kg
Front Cover	2.0mm AR Coating Tempered Glass
Back Cover	2.0mm Heat Strengthened Glass with White Grid
Frame	Anodized Aluminium Alloy
Junction Box	IP68, 3 Bypass Diodes
Cable	4mm ² , +400mm, -300mm, 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	TSBHNM425-108HVG		TSBHNM430-108HVG		TSBHNM435-108HVG		TSBHNM440-108HVG		TSBHNM445-108HVG	
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Max. Power Output Pmax (W)	425	320	430	323	435	327	440	331	445	335
Max. Power Voltage Vmp (V)	31.77	29.63	31.90	29.69	32.04	29.84	32.17	29.99	32.30	30.10
Max. Power Current Imp (A)	13.38	10.80	13.48	10.88	13.58	10.96	13.68	11.04	13.78	11.13
Open Circuit Voltage Voc (V)	37.57	35.69	37.71	35.82	37.86	35.97	38.01	36.11	38.15	36.24
Short Circuit Current Isc (A)	14.26	11.51	14.36	11.59	14.46	11.67	14.56	11.76	14.66	11.84
Module Efficiency (%)	21.76%		22.02%		22.28%		22.53%		22.79%	

Rear Side Power Gain

Refer. Bifaciality Factor: 70~10%

5%	Maximum Power (Pmax)	446	452	457	462	467
	Module Efficiency STC (%)	22.85%	23.12%	23.39%	23.66%	23.93%
15%	Maximum Power (Pmax)	489	495	500	506	512
	Module Efficiency STC (%)	25.03%	25.32%	25.62%	25.91%	26.21%
25%	Maximum Power (Pmax)	531	538	544	550	556
	Module Efficiency STC (%)	27.21%	27.53%	27.85%	28.17%	28.49%

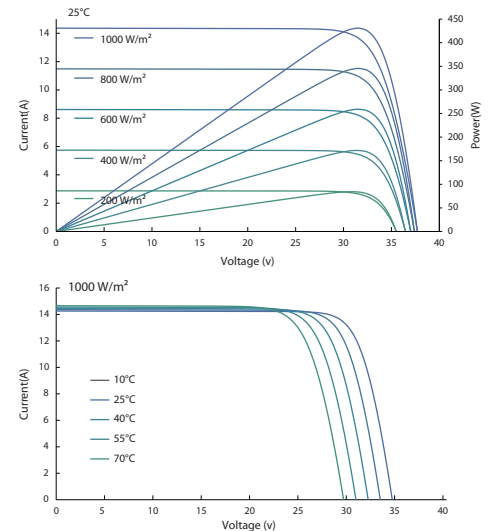
Operating Parameters

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)	30

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±2°C

I-V Curves



Package Information

Quantity / Pallet	36 pcs
Container 40'HQ	26 pallets, 936 pcs

Partner's Notes