



TSHNM-108HV

415-435W

N-type TOPCon Monofacial Solar Module

- Natural zero LID with N-type solar cell
- SMBB technology, better light trapping & current collection
- 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



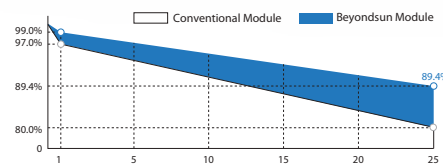
12-year Warranty for Material & Workmanship



25-year Warranty for Linear Power Output



Product & Performance Insured by LLOYD'S & PingAn



The Ideal Solution for



Residential rooftop projects



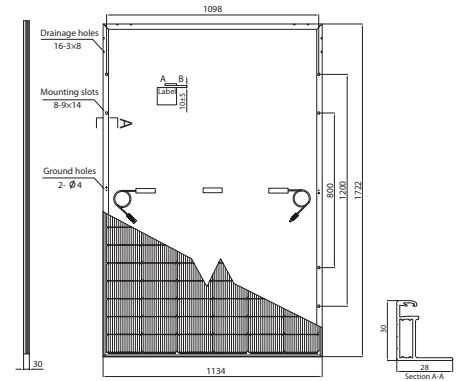
Commercial / industrial rooftop projects

POWER TSHNM-108HV 415-435W

Mechanical Parameters

Cell Type	N-type Mono 182x91mm
Cell Arrangement	108 pcs ,2x(6x9)
Dimension (LxWxH)	1722x1134x30mm
Weight	21.0kg
Front Cover	3.2mm AR Coating Tempered Glass
Back Cover	White Back Sheet
Frame	Black Anodized Aluminium Alloy
Junction Box	IP68, 3 Bypass Diodes
Length of Cable	4mm ² , +400mm, -300mm, or customizable
Connector	PV Connector

Technical Drawings (mm)



Electrical Parameters @STC

Module Type	TSHNM415-108HV	TSHNM420-108HV	TSHNM425-108HV	TSHNM430-108HV	TSHNM435-108HV
Max. Power Output Pmax (W)	415	420	425	430	435
Max. Power Voltage Vmp (V)	31.49	31.63	31.77	31.90	32.04
Max. Power Current Imp (A)	13.18	13.28	13.38	13.48	13.58
Open Circuit Voltage Voc (V)	37.27	37.42	37.57	37.71	37.86
Short Circuit Current Isc (A)	14.06	14.16	14.26	14.36	14.46
Module Efficiency (%)	21.25%	21.51%	21.76%	22.02%	22.28%

STC: 1000W/m², 25 °C, AM 1.5 Pmax tolerance 0~+3%

Electrical Parameters @NMOT

Max. Power Output Pmax (W)	312	316	320	323	327
Max. Power Voltage Vmp (V)	29.33	29.48	29.63	29.69	29.84
Max. Power Current Imp (A)	10.64	10.72	10.80	10.88	10.96
Open Circuit Voltage Voc (V)	35.41	35.55	35.69	35.82	35.97
Short Circuit Current Isc (A)	11.35	11.43	11.51	11.59	11.67

NMOT: 800W/m², AM 1.5, 20°C, 1m/s

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)	25

Temperature Coefficients

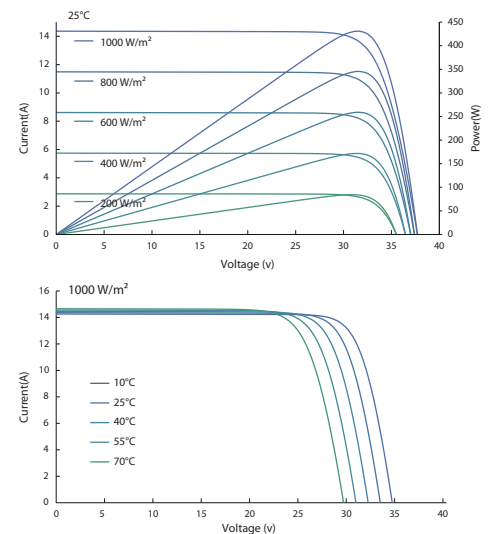
Temperature Coefficients of Pmp	-0.30%/°C
Temperature Coefficients of Voc	-0.25%/°C
Temperature Coefficients of Isc	+0.046%/°C
NMOT	45°C±2°C

Package Information

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

Patner's Notes

I-V Curves



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