

Silver Series

TPC Pro-54HD

Product Range

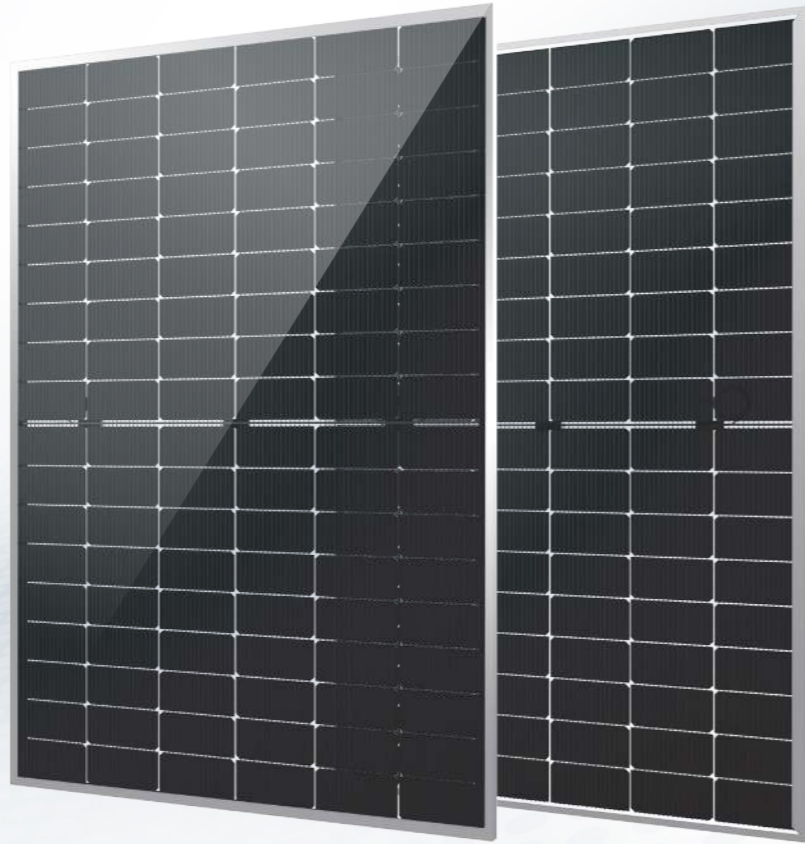
430-450W

N-Type Bifacial
Double Glass

450W
Maximum Power Output

0~+5W
Positive Power Tolerance

23.04%
Maximum Efficiency



Double Glass, 182mm, 54-CELL HALF-CUT SERIES

ELECTRICAL PARAMETERS AT STC

Module Type: TPC Pro-54HD	430M	435M	440M	445M	450M
Maximum Power(Wp)	430W	435W	440W	445W	450W
Open Circuit Voltage(Voc)	39.30V	39.45V	39.60V	39.75V	39.90V
Short Circuit Current(Isc)	13.80A	13.89A	13.98A	14.07A	14.16A
Maximum Power Voltage(Vm)	32.75V	32.90V	33.05V	33.20V	33.35V
Maximum Power Current(Imp)	13.14A	13.23A	13.32A	13.41A	13.50A
Module Efficiency	22.02%	22.28%	22.53%	22.79%	23.04%
Maximum Series Fuse	25A				
Watts Positive Tolerance	0~+5W				
Number Of Diode	3				
Standard Test Conditions	1000W/M ² ,25°C,AM1.5				
Maximum System Voltage	1500V/DC				
Temperature-Coefficient Isc	+0.043%/°C				
Temperature-Coefficient Voc	-0.24%/°C				
Temperature-Coefficient Pmp	-0.30%/°C				
Operating Temperature	-40°C...+85°C				
Normal Operating Cell Temperature	45±2°C				
Load Capacity For The Cover Of The Module (Glass)	5400Pa(IEC61215)(snow)				
Load Capacity For The Front & Back Of The Module	2400Pa(IEC61215)(wind)				

144HC BNPI (1000w/m² + 135w/m²)

Module Type: TPC Pro-54HD	430M	435M	440M	445M	450M
Maximum Power(Wp)	473W	479W	484W	490W	495W
Open Circuit Voltage(Voc)	39.30V	39.45V	39.60V	39.75V	39.90V
Short Circuit Current(Isc)	15.16A	15.28A	15.36A	15.48A	15.59A
Maximum Power Voltage(Vm)	32.76V	32.90V	33.06V	33.20V	33.34V
Maximum Power Current(Imp)	14.44A	14.56A	14.64A	14.76A	14.85A

144HC BSI (1000w/m² + 300w/m²)

Module Type: TPC Pro-54HD	430M	435M	440M	445M	450M
Maximum Power(Wp)	529W	535W	541W	547W	553W
Open Circuit Voltage(Voc)	39.30V	39.45V	39.60V	39.75V	39.90V
Short Circuit Current(Isc)	16.94A	17.06A	17.17A	17.27A	17.40A
Maximum Power Voltage(Vm)	32.78V	32.90V	33.07V	33.22V	33.36V
Maximum Power Current(Imp)	16.14A	16.26A	16.36A	16.47A	16.58A

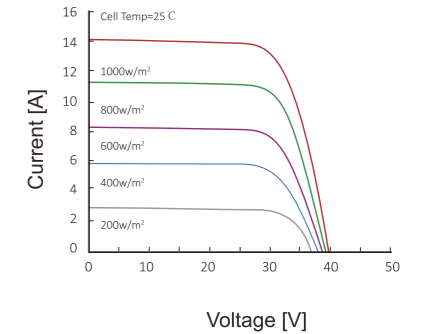
MECHANICAL CHARACTERISTICS

Front/Back Cover (Material / Thickness)	low-iron tempered glass 2.0 / 2.0 mm
Cell (Quantity / Material / Dimensions)	108(6x9x2) / monocrystalline silicon,bifacial
Frame (Material / Color)	aluminum hollow-chamber frame on each side anodized aluminum alloy / silver
Junction Box (Protection Degree)	≥IP68
Cables & Plug Connectors	4mm ² , 300mm in length,length can be customized
Module Dimensions (L / W / H)	1722x1134x30mm
Module Weight	22 kg
Application Class	Class A
Electrical Protection Class	Class II
Fire Safety Class	Class A

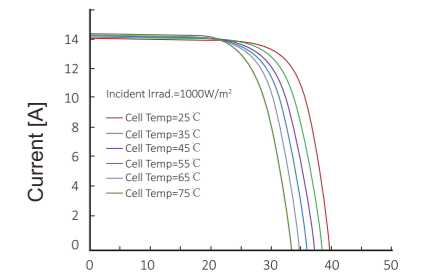
PACKING

Container Size	Units/Pallet (PCS)	Weight/Pallet (KG)	Pallet Measurement (mm)	Units/Container (PCS)
40HQ	36	825	1750x1120x1260	936

CURRENT-VOLTAGE CURVES:

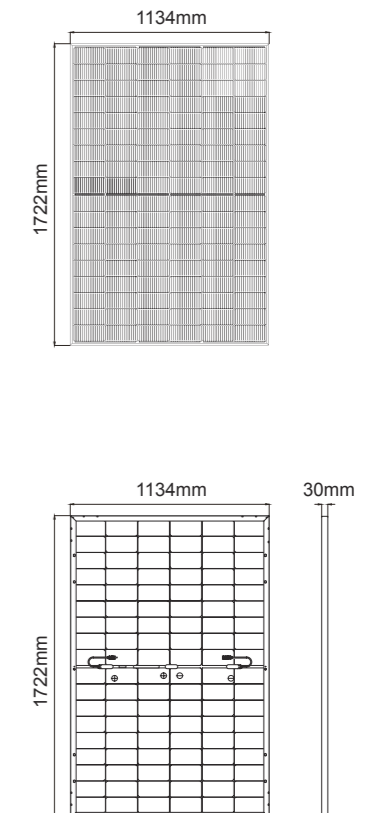


Module characteristics at constant module temperatures of 25°C and variable levels of irradiance



Module characteristics at variable module temperatures and constant module irradiance of 1.000 W/m²

MODULE DIAGRAM:



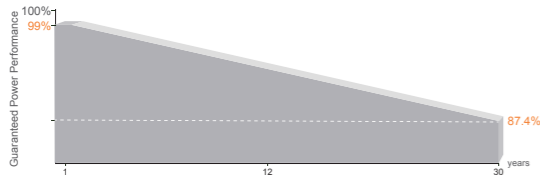
Linear Performance Warranty

15 Year Product Warranty

30 Year Linear Power Warranty

<1% First year Power Degradation

<0.4% Year 2-30 Power Degradation



Certifications

Quality Management System and Product Certification.

IEC61215(2021), IEC61730(2023), IEC61701

IEC61215-2 (bifaciality): 2021

ISO9001:2015: Quality Management System

ISO14001:2015: Environment Management System

ISO45001:2018: Occupational health and safety management systems



MBB Half-Cut Solar Cell

182x91mm, 108 cells.

Higher Module Conversion Efficiency

Higher module output up to 450W with module efficiency up to 23.04%.

Low-Light Performance

Advanced glass and surface texturing allow for excellent performance in low-light environments.

Transparent Dual-glass Design

Excellent fire rating, with better temperature coefficient.

Higher Power Output

Module power increases 5-25% generally, bringing significantly lower LCOE and higher IRR.

