

Silver Series

TPC-RA54HD

Product Range

440-460W

N-Type Rectangle Bifacial
Double Glass High Efficiency

460W

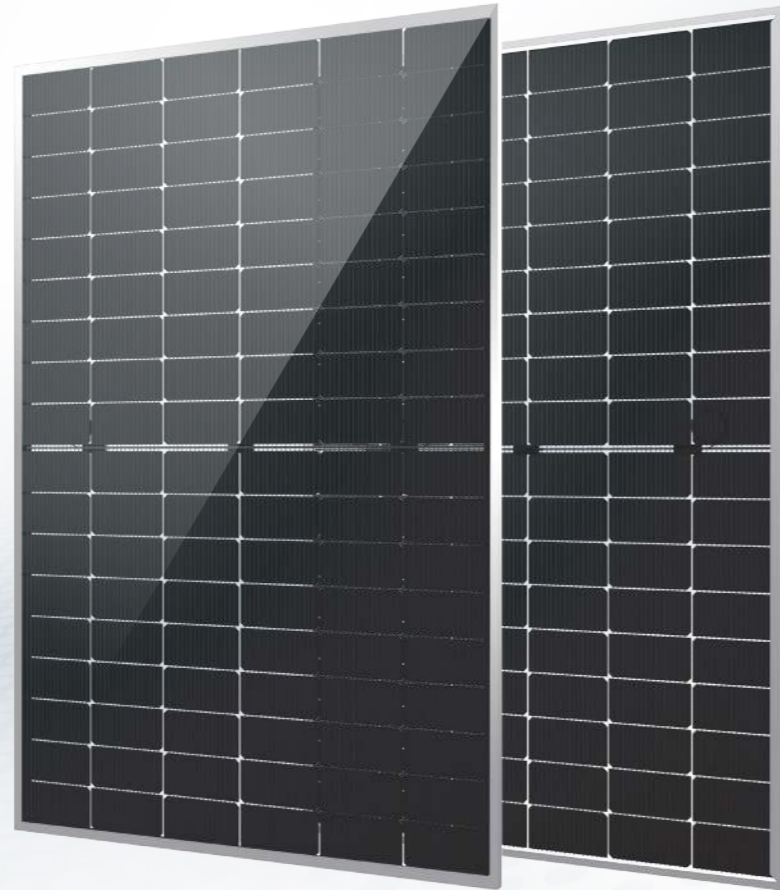
Maximum Power Output

0~+5W

Positive Power Tolerance

23.02%

Maximum Efficiency



Double Glass, 54-CELL HALF-CUT SERIES

ELECTRICAL PARAMETERS AT STC

Module Type: TPC-RA54HD	440M / 445M / 450M / 455M / 460M
Maximum Power(Wp)	440W 445W 450W 455W 460W
Open Circuit Voltage(Voc)	38.90V 39.10V 39.30V 39.50V 39.65V
Short Circuit Current(Isc)	14.31A 14.40A 14.48A 14.56A 14.64A
Maximum Power Voltage(Vm)	32.47V 32.65V 32.82V 33.00V 33.17V
Maximum Power Current(Imp)	13.55A 13.63A 13.71A 13.79A 13.87A
Module Efficiency	22.02% 22.27% 22.52% 22.77% 23.02%
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	+0.046%/°C
Temperature-Coefficient Voc	-0.26%/°C
Temperature-Coefficient Pmpp	-0.30%/°C
Operating Temperature	-40°C...+85°C
Normal Operating Cell Temperature	45±2
Load Capacity For The Cover Of The Module (Glass)	3600Pa(IEC61215)(snow)
Load Capacity For The Front & Back Of The Module	2400Pa(IEC61215)(wind)

108HC BNPI (1000w/m² + 135w/m²)

Module Type: TPC-RA54HD	440M / 445M / 450M / 455M / 460M
Maximum Power(Wp)	484W 490W 495W 501W 506W
Open Circuit Voltage(Voc)	38.93V 39.11V 39.32V 39.51V 39.65V
Short Circuit Current(Isc)	15.74A 15.84A 15.93A 16.02A 16.09A
Maximum Power Voltage(Vm)	32.49V 32.67V 32.83V 33.01V 33.16V
Maximum Power Current(Imp)	14.90A 15.00A 15.08A 15.18A 15.26A

108HC BSI (1000w/m² + 300w/m²)

Module Type: TPC-RA54HD	440M / 445M / 450M / 455M / 460M
Maximum Power(Wp)	541W 547W 554W 560W 566W
Open Circuit Voltage(Voc)	38.92V 39.12V 39.32V 39.54V 39.75V
Short Circuit Current(Isc)	17.60A 17.71A 17.81A 17.91A 18.00A
Maximum Power Voltage(Vm)	32.49V 32.67V 32.84V 33.04V 33.20V
Maximum Power Current(Imp)	16.66A 16.75A 16.85A 16.95A 17.05A

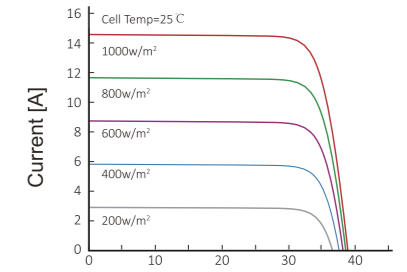
MECHANICAL CHARACTERISTICS

Front/Back Cover (Material / Thickness)	low-iron tempered glass 2.0 / 2.0 mm
Cell (Quantity / Material / Dimensions)	108(6x18) / monocrystalline silicon
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)	1762(±2)x1134(±2)x30(±1)mm
Module Weight	22.5 kg
Application Class	Class A
Electrical Protection Class	Class II
Fire Safety Class	Class A

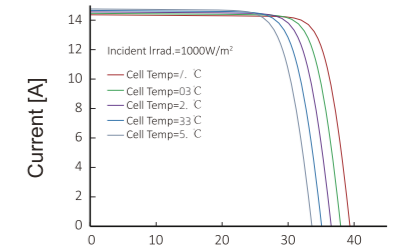
PACKING

Container Size	Units/Pallet (PCS)	Weight/Pallet (KG)	Pallet Measurement (mm)	Units/Container (PCS)
40HQ	36	845	1790x1120x1260	936

CURRENT-VOLTAGE CURVES:

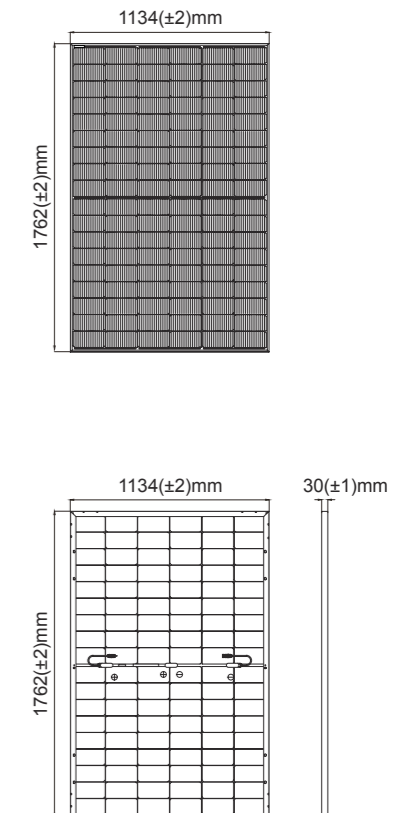


Module characteristics at constant module temperatures of 25°C and variable levels of irradiance



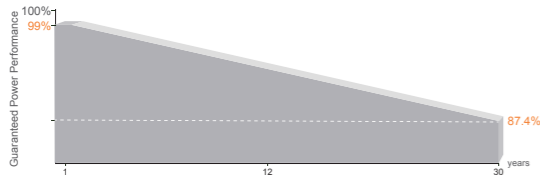
Module characteristics at variable module temperatures and constant module irradiance of 1.000 W/m²

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



MBB Half-Cut Rectangle Solar Cell

182x94mm, 108 cells.

Small In Size, Bigger On Power

Up to 460W, 23.02% module efficiency with high density interconnect technology.

Transparent Dual-glass Design

Excellent fire rating, with better temperature coefficient.

Universal Solution For Residential And C&I Rooftops

Perfect size and low weight for handling and installation.

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



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