

Black Series

# TPC-72HC(BK)

Product Range

## 535-560W

PERC Monocrystalline  
Half-Cut Solar Module



**560W**  
Maximum Power Output

**0~+5W**  
Positive Power Tolerance

**21.67%**  
Maximum Efficiency

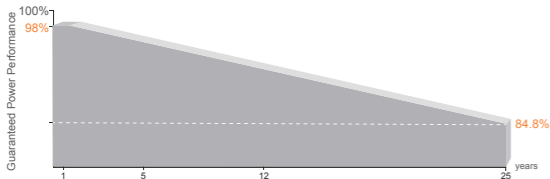
### Linear Performance Warranty

12 Year Product Warranty

25 Year Linear Power Warranty

<1% First year Power Degradation

<0.55% Year 2-25 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, 144 cells.

### Higher Module Conversion Efficiency

Higher module output up to 560W with module efficiency up to 21.67%.

### Low-Light Performance

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

### Light-Weight Design

Light-weight design using transparent backsheet for easy installation and low BOS cost.

### Higher Power Output

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

## 182mm SERIES, 72-CELL HALF-CUT SERIES

### ELECTRICAL PERFORMANCE

Module Type: TPC-72HC(BK)	535M / 540M / 545M / 550M / 555M / 560M
Maximum Power(Wp)	535W 540W 545W 550W 555W 560W
Open Circuit Voltage(Voc)	49.35V 49.50V 49.65V 49.80V 50.02V 50.10V
Short Circuit Current(Isc)	13.78A 13.85A 13.92A 13.98A 14.07A 14.11A
Maximum Power Voltage(Vm)	41.50V 41.65V 41.80V 41.95V 42.11V 42.26V
Maximum Power Current(Imp)	12.90A 12.97A 13.04A 13.12A 13.18A 13.25A
Module Efficiency	20.7% 20.9% 21.1% 21.3% 21.5% 21.67%
Maximum Series Fuse	25A
Watts Positive Tolerance	0~+5W
Number Of Diode	3
Standard Test Conditions	1000W/M <sup>2</sup> ,25°C,AM1.5
Maximum System Voltage	1500V/DC
Temperature-Coefficient Isc	+0.048%/°C
Temperature-Coefficient Voc	-0.270%/°C
Temperature-Coefficient Pmpp	-0.350%/°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)

### ELECTRICAL PERFORMANCE (NOCT)

Module Type: TPC-72HC(BK)	535M / 540M / 545M / 550M / 555M / 560M
Maximum Power(Wp)	404.5W 408.5W 412W 416W 420W 424W
Open Circuit Voltage(Voc)	46.35V 46.50V 46.65V 46.8V 46.85V 47.00V
Short Circuit Current(Isc)	10.95A 11.00A 11.07A 11.11A 11.21A 11.28A
Maximum Power Voltage(Vm)	39.20V 39.35V 39.50V 39.65V 39.66V 39.78V
Maximum Power Current(Imp)	10.32A 10.38A 10.43A 10.51A 10.59A 10.66A

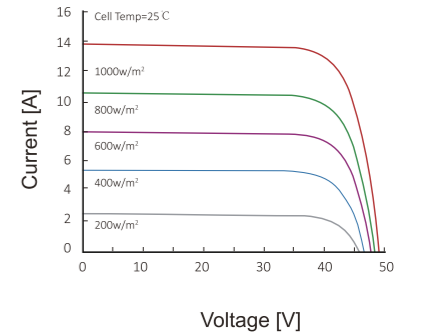
### MECHANICAL CHARACTERISTICS

Front Cover (Material / Thickness)	low-iron tempered glass / 3.2mm
Backsheet (Color)	TPT in Black
Cell (Quantity / Material / Dimensions)	144(6x12x2) / monocrystalline silicon,bifacial
Frame (Material / Color)	aluminum hollow-chamber frame on each side anodized aluminum alloy / black
Junction Box (Protection Degree)	≥IP68
Cables & Plug Connectors	4mm <sup>2</sup> , 300mm in length,length can be customized
Module Dimensions (L / W / H)	2279x1134x30/35mm
Module Weight	27.73kg
Application Class	Class A
Electrical Protection Class	Class II
Fire Safety Class	Class C

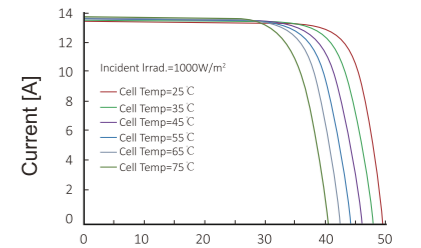
### PACKING

Container Size	Units/Pallet (PCS)	Weight/Pallet (KG)	Pallet Measurement (mm)	Units/Container (PCS)
40HQ	36 (30mm)	1000	2300x1120x1260	720
	31 (35mm)	900	2300x1120x1260	620

### 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/m<sup>2</sup>

### MODULE DIAGRAM:

