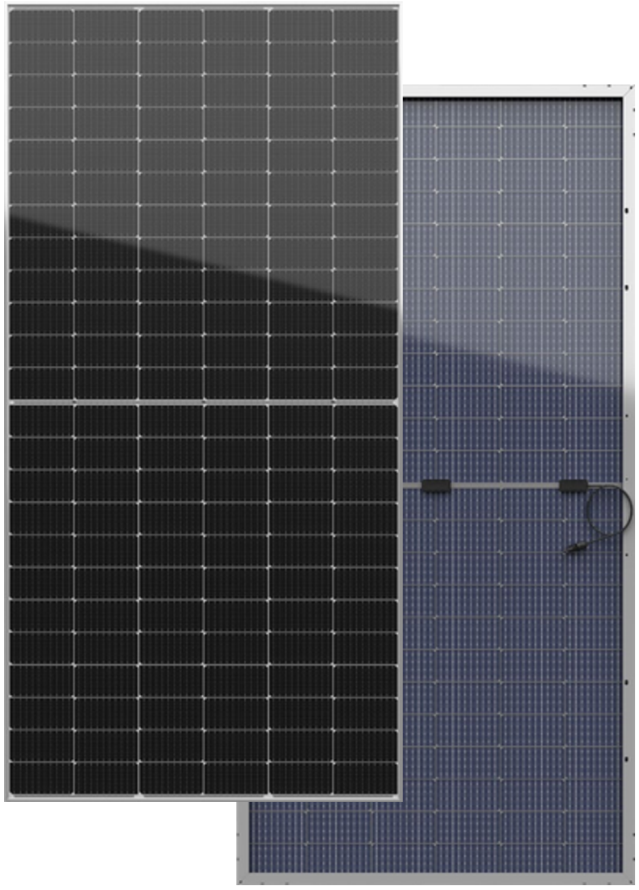
GreenWatts Solar Panels

in partnership with HT-SAAE



450W
HT72-166M Transparent

High Efficiency Low LID and Bifacial cell with Half-cut Technology
Big Size: Cell 166×83 mm Monocrystalline

HIGHLIGHTS

- Module Efficiency
  21.4%
- Number of Cells
  144 (6 × 24)
- Weight
  23.5±0.5kg
- Dimensions
  2094×1038 × 35mm

Optimized for High Voltage Systems

— Specifically designed to align with advanced high voltage system requirements.
— Maximum Efficiency up to 22.4%
— Cost effective solutions designed to offer a competitive balance of system cost suitable for utility-scale projects.

Enhanced Efficiency with Half Cut Cell Technology

— Minimizes resistive losses and reduces shading impact, boosting overall efficiency.
— Ensures long term performance against Potential-Induced Degradation.

Durability in Extreme Conditions

— Engineered to endure harsh environmental conditions, such as extreme temperatures, high humidity, salt, mist, and sand.
— Supports up to 5400 Pa for snow loads and 2400 Pa for wind loads, reinforcing module reliability in diverse environmental conditions.

High Reliability

Comprehensive and First-rate Certification System

IEC61215: 2016 // IEC61730: 2016 // UL61730: 2017 // IE 62804: 2015
ISO9001 // ISO14001 // ISO45001

30 YEARS WARRANTY

GREEN WATTS

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Electrical Characteristics

Module	HT72-166M				
Maximum Power at STC (Pmax)	445W	450W	455W	460W	465W
Open - Circuit Voltage (Voc)	49.90V	50.00V	50.10V	50.20V	50.30V
Short - Circuit Current (Isc)	11.72A	11.83A	11.96A	12.06A	12.16A
Optimum Operating Voltage (Vmp)	41.00V	41.10V	41.40V	41.50V	41.60V
Optimum Operating Current (Imp)	10.86A	10.96A	10.99A	11.09A	11.18A
Module efficiency	20.5%	20.7%	20.9%	21.2%	21.4%
Power Tolerance	0 ~ + 3%				
Maximum System Voltage	1500V DC (UL / IEC)				
Maximum Series Fuse Rating	20A				
Operating Temperature	-40 ℃ to +85℃				

* STC: Irradiance 1000W/m2, module temperature 25, AM=1.5
Optionalblack frame or white frame module according to customer requirements

NMOT

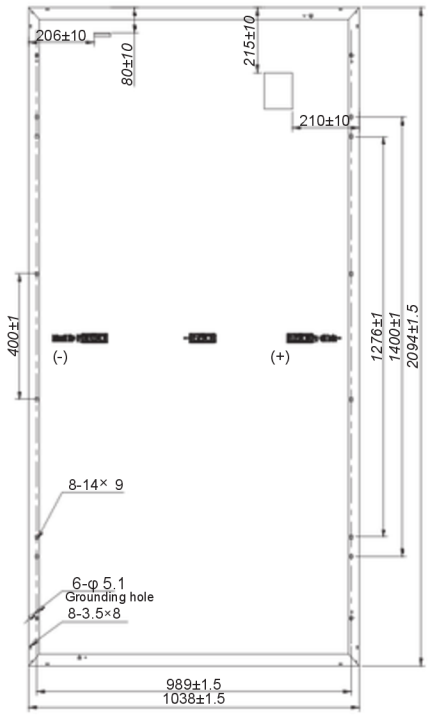
Module	HT72-166M *(Bifaciality 70±5%)*				
Maximum Power	329W	333W	337W	342W	346W
Open - Circuit Voltage (Voc)	47.10V	47.20V	47.30V	47.40V	47.50V
Short - Circuit Current (Isc)	9.44A	9.55A	9.66A	9.76A	9.87A
Maximum Power Voltage (Vmp)	38.70V	38.80V	38.90V	39.00V	39.1V
Maximum Circuit Current (Imp)	8.50A	8.58A	8.66A	8.74A	8.82A
NMOT	45±2℃				

* NMOT: Irradiance 800W/m2, ambient temperature 20℃, wind speed 1m/s

Mechanical Characteristics

Solar Cells	Monocrystalline 166× 83mm
No.of Cells	144(6 × 24)
Dimensions	2094 × 1038 ×35mm
Weight	23.5±0.5kg
Front Glass	High transmission tempered glass; thickness;3.2mm
Frame	Anodized aluminum alloy
Junction Box	IP68
Cable	4mm2(UL /IEC) length：±1200mm/customized length
Connectors	MC4-EVO 2 /MC4 Compatible
Packaging Configuration	31pcs/ box, 726pcs/ 40'HQ container

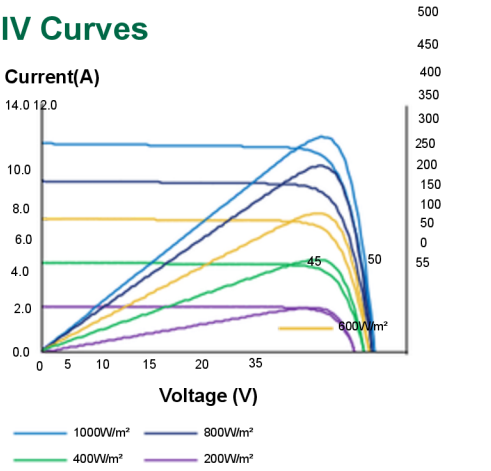
Engineering Drawing



Temperature Characteristics

Temperature Coefficient of Pmax	-0.326%/℃
Temperature Coefficient of Voc	-0.258%/℃
Temperature Coefficient of Isc	+0.051%/℃

IV Curves

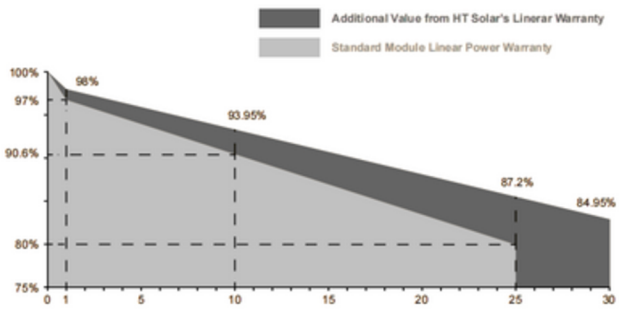


Warranty

25 - years
product warranty

30 - years
warranty on power output

Specific information is referred to the product quality guarantee



The module recycling should be carried out by the professional institutions at the end of module life cycle

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