

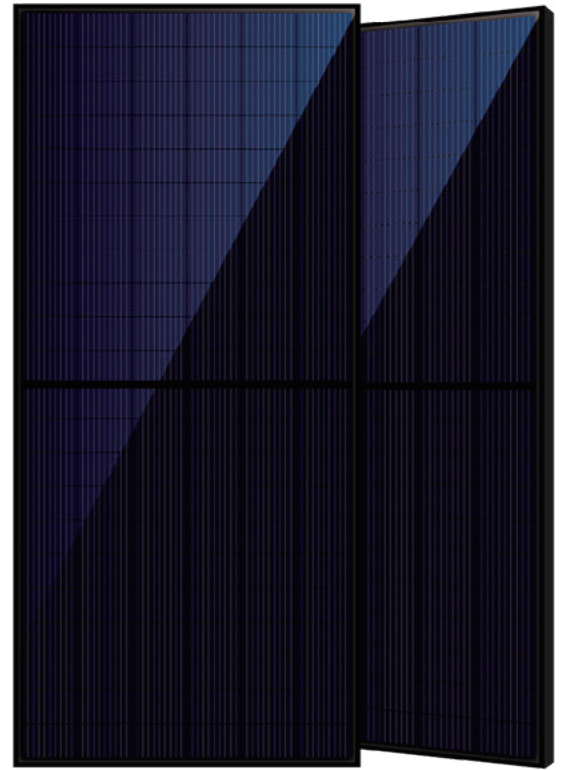
# BLACK PEARL Series

182mm monofacial full black half cut cell technology

# 480-495W

**20.8%** MODULE EFFICIENCY **0~+5w** POSITIVE POWER TOLERANCE

Type: HGT-S132|M10Hb-xxx



## 495w

**Max.** Power Output



### HIGH CUSTOMER VALUE

- Lower LCOE (Levelized Cost Of Energy), reduced BOS (Balance Of System) cost, shorter payback time
- Lower guaranteed first year and annual degradation
- Designed for compatibility with existing mainstream system components



### HIGH RELIABILITY

- Minimized micro-cracks with innovation non-destructive cutting technology ensured PID resistance through cell process and module material control.
- Mechanical performance up to 5400 Pa positive load and 2400 Pa negative load



### HIGH ENERGY YIELD

- Excellent IAM (Incident Angle Modifier) and low irradiation performance, validated by 3rd party certifications
- The unique design provides optimized energy production under inter-row shading conditions



### HIGH POWER UP TO 495W

- Large area cells based on 182mm silicon wafers and half-cut cell technology
- Up to 20.8% module efficiency with high density interconnect technology
- Multi-busbar technology for better light trapping effect, lower series resistance and improved current collection

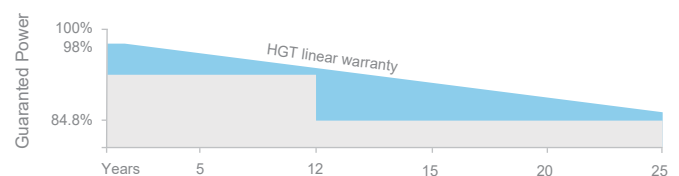
Materials and workmanship warranty **12** Years

**2.00%**  
First Year Power Degradation

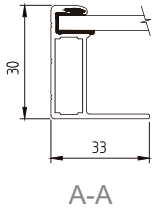
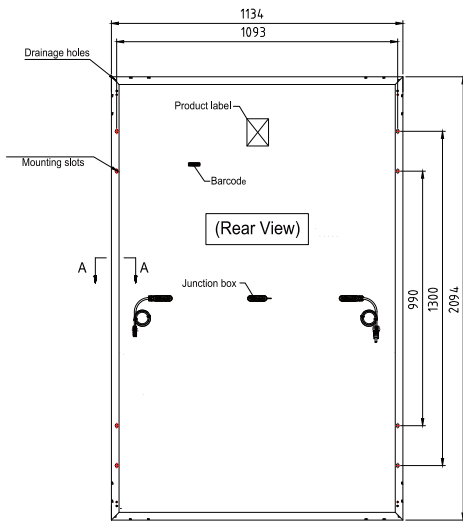
Linear power warranty **25** Years

**0.55%**  
Annual Degradation

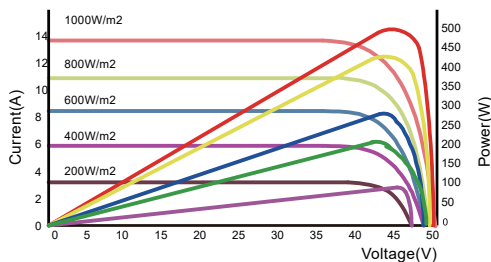
### PERFORMANCE WARRANTY



## DIMENSIONS OF PV MODULE(mm)



## Current-Voltage & Power-Voltage Curve(490W)



## ELECTRICAL DATA (STC)

Parameter	480W	485W	490W	495W
Maximum Power (P <sub>max</sub> )	480W	485W	490W	495W
Power Tolerance-P <sub>MAX</sub> (W)	0 ~ +5W			
Maximum Power Voltage (V <sub>mp</sub> )	37.10V	37.30V	37.50V	37.70V
Maximum Power Current (I <sub>mp</sub> )	12.94A	13.00A	13.07A	13.13A
Open Circuit Voltage (V <sub>oc</sub> )	44.90V	45.10V	45.30V	45.50V
Short Circuit Current (I <sub>sc</sub> )	13.36A	13.45A	13.54A	13.63A
Module Efficiency $\eta_m$ (%)	20.2%	20.4%	20.6%	20.8%

STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25 °C, Air Mass AM1.5.  
\*Measuring tolerance: ±3%.

## ELECTRICAL DATA (NMOT)

Parameter	354W	358W	362W	366W
Maximum Power (P <sub>max</sub> )	354W	358W	362W	366W
Maximum Power Voltage (V <sub>mp</sub> )	38.64V	38.71V	38.79V	38.86V
Maximum Power Current (I <sub>mp</sub> )	9.17A	9.25A	9.33A	9.40A
Open Circuit Voltage (V <sub>oc</sub> )	46.87V	46.93V	47.00V	47.06V
Short Circuit Current (I <sub>sc</sub> )	9.76A	9.85A	9.93A	10.00A

NMOT: Irradiance at 800W/m<sup>2</sup>, Ambient Temperature 20 °C, Air Mass AM1.5, Wind Speed 1m/s.

## MECHANICAL DATA

Solar Cells	Monocrystalline silicon 182mm
No. of cells	132 cells (6x22)
Module Dimensions	2094 × 1134 × 30 mm
Weight	26.5 kg
Glass	High Transmission, AR Coated fully tempered Glass
Encapsulant Material	EVA
Frame	Anodized Aluminium Alloy
J-Box	IP 68 rated (3 bypass diodes)
Backsheet	Black
Cables	4.0mm <sup>2</sup> cable length +350mm/-350mm or customized length
Connector	MC4 Compatible

## TEMPERATURE RATINGS

NMOT(Nominal Operating Cell Temperature)	42 ± 2 °C
Temperature Coefficient of P <sub>MAX</sub>	-0.36%/°C
Temperature Coefficient of V <sub>OC</sub>	-0.304%/°C
Temperature Coefficient of I <sub>SC</sub>	0.050%/°C

(Do not connect Fuse in Combiner Box with two or more strings in parallel connection)

## MAXIMUM RATINGS

Operational Temperature	-40~+85 °C
Maximum System Voltage	1500V/DC(IEC)
Max Series Fuse Rating	25A

## WARRANTY

12 year Product Workmanship Warranty
25 year Power Warranty
2% first year degradation
0.55% Annual Power Attenuation

((Please refer to product warranty for details))

## PACKAGING CONFIGURATION

Pieces per pallet	36
Pallets per container	22
Pieces per container 40'HC	792
Packaging box dimensions	2145x1140x1270mm
Packaging box weight	1000kg