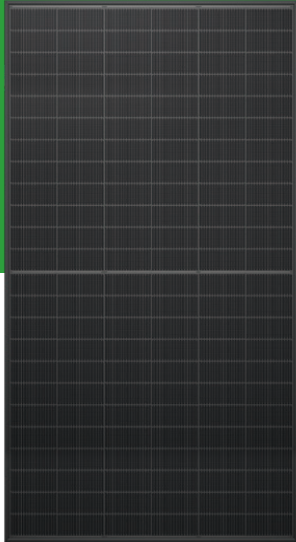








# AS-7M144-BHC 540W~560W Black





## MONOCRYSTALLINE BIFACIAL PERC MODULE





### ADVANCED PERFORMANCE & PROVEN ADVANTAGES

-  More power gain up to 30% by utilizing the ambient light reflected from surrounding surfaces.
-  Lower annual power degradation and higher energy yield during the module's lifetime.
-  Superior performance under high temperature and low light conditions.
-  High load-bearing capacity which can withstand wind loads up to 2400Pa and snow loads up to 5400Pa.
-  Excellent reliability and durability against extreme environmental conditions (high resistance to salt mist, ammonia, sand, acid and alkali, etc.).
-  Potential induced degradation (PID) free.

### CERTIFICATIONS

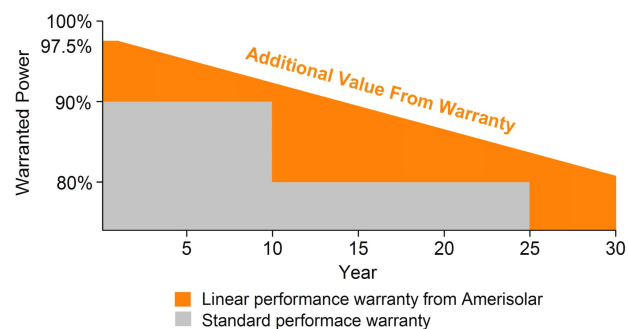
-  IEC 61215, IEC 61730, CE
-  ISO9001:2015: Quality management system
-  ISO14001:2015: Environmental management system
-  ISO 45001:2018: Occupational health and safety management system

### SPECIAL WARRANTY

-  20 years product warranty
-  30 years linear power output warranty



Passionately  
committed to  
delivering innovative  
energy solution



## ELECTRICAL CHARACTERISTICS AT STC\*

Module Type	AS-7M144-BHC-540W	AS-7M144-BHC-545W	AS-7M144-BHC-550W	AS-7M144-BHC-555W	AS-7M144-BHC-560W
Maximum Power ( $P_{max}$ )	540W	545W	550W	555W	560W
Open Circuit Voltage ( $V_{oc}$ )	49.6V	49.8V	50.0V	50.2V	50.4V
Short Circuit Current ( $I_{sc}$ )	13.86A	13.90A	13.94A	13.98A	14.02A
Voltage at Maximum Power ( $V_{mp}$ )	41.4V	41.6V	41.8V	42.0V	42.2V
Current at Maximum Power ( $I_{mp}$ )	13.05A	13.11A	13.16A	13.22A	13.28A
Module Efficiency (%)	20.87	21.06	21.25	21.44	21.63
Operating Temperature	-40°C to +85°C				
Maximum System Voltage	1000/1500V(IEC)				
Fire Resistance Rating	Class C				
Maximum Series Fuse Rating	25A				

\*STC: Irradiance 1000W/m<sup>2</sup>, Cell temperature 25 °C, AM1.5; Tolerance of Pmax: ±3%; Measurement Tolerance: ±3%

## ELECTRICAL CHARACTERISTICS AT NOCT\*\*

Module Type	AS-7M144-BHC-540W	AS-7M144-BHC-545W	AS-7M144-BHC-550W	AS-7M144-BHC-555W	AS-7M144-BHC-560W
Maximum Power ( $P_{max}$ )	403W	407W	411W	415W	419W
Open Circuit Voltage ( $V_{oc}$ )	45.5V	45.7V	45.9V	46.1V	46.3V
Short Circuit Current ( $I_{sc}$ )	11.19A	11.22A	11.25A	11.28A	11.31A
Voltage at Maximum Power ( $V_{mp}$ )	37.5V	37.7V	37.9V	38.1V	38.3V
Current at Maximum Power ( $I_{mp}$ )	10.64A	10.69A	10.74A	10.79A	10.84A

\*\*NOCT: Irradiance 800W/m<sup>2</sup>, Ambient temperature 20 °C, Wind Speed 1 m/s

## ELECTRICAL CHARACTERISTICS WITH DIFFERENT REAR SIDE POWER GAIN (EXAMPLE: AS-7M144-BHC-540W)

Power Gain	$P_{max}$	$V_{oc}$	$I_{sc}$	$V_{mp}$	$I_{mp}$
10%	594W	49.6V	15.24A	41.4V	14.35A
15%	621W	49.6V	15.93A	41.4V	15.00A
20%	648W	49.6V	16.62A	41.4V	15.66A
25%	675W	49.6V	17.31A	41.4V	16.31A
30%	702W	49.6V	17.99A	41.4V	16.96A

## MECHANICAL CHARACTERISTICS

Cell type	Monocrystalline Bifacial 182
Number of cells	144(6×24)
Module dimensions	2278×1134×30mm
Weight	31kg
Front/Back Glass	2.0mm tempered glass with AR coated
Frame	Anodized aluminum alloy
Junction box	IP68, 3 diodes
Cable	4mm <sup>2</sup> , Length: 300mm
Connector	MC4 or MC4 compatible

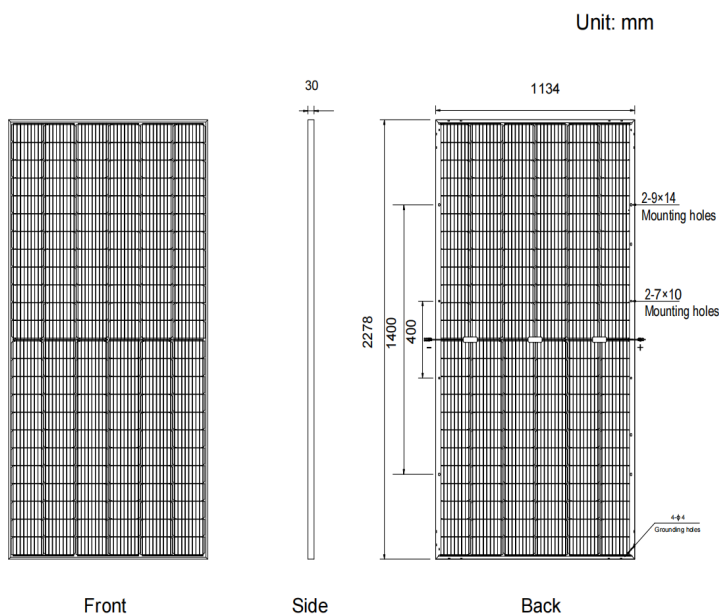
## TEMPERATURE CHARACTERISTICS

Nominal Operating Cell Temperature (NOCT)	42°C±2°C
Temperature Coefficients of $P_{max}$	-0.36%/°C
Temperature Coefficients of $V_{oc}$	-0.28%/°C
Temperature Coefficients of $I_{sc}$	0.048%/°C

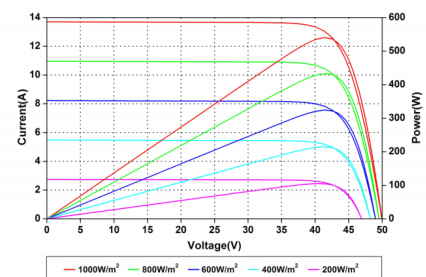
## PACKAGING

Standard packaging	36 pcs/pallet
Module quantity per 40' container	720pcs(HQ)

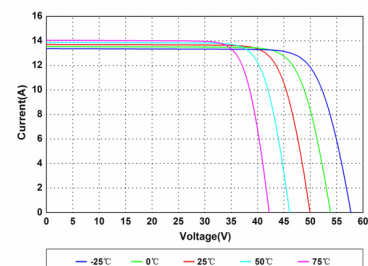
## ENGINEERING DRAWINGS



## IV CURVES



Current-Voltage and Power-Voltage Curves at Different Irradiances



Current-Voltage Curves at Different Temperatures

Specifications in this datasheet are subject to change without prior notice.