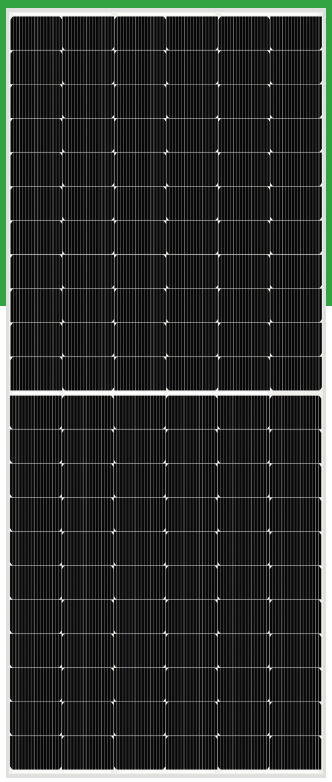
Amerisolar USA | New Energy New World®



AS-7M132N-BHC G12R

600W~630W

MONOCRYSTALLINE MODULE

ADVANCED PERFORMANCE & PROVEN ADVANTAGES

- High module conversion efficiency up to 23.31% by using innovative N-type TOPCon cell technology.
- Extremely low LID (light induced degradation) and low annual power degradation ensure higher energy yield during the module's lifetime.
- Low temperature coefficient and excellent performance under high temperature and low light conditions.
- Robust aluminum frame ensures the modules to withstand wind loads up to 2400Pa and snow loads up to 5400Pa.
- High reliability against extreme environmental conditions (passing salt mist, ammonia and hail tests).
- Potential induced degradation (PID) resistance.

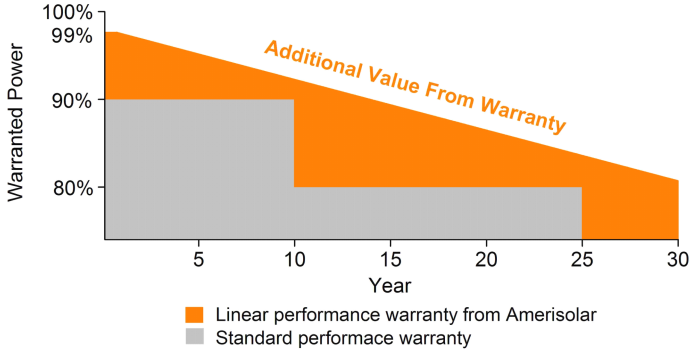
CERTIFICATIONS

- IEC 61215, IEC 61730, CE
- ISO 9001:2015: Quality management system
- ISO 14001:2015: 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

Maximum Power (Pmax)	605W	610W	615W	620W	625W	630W
Open Circuit Voltage (VOC)	48.5V	48.7V	48.9V	49.1V	49.3V	49.5V
Short Circuit Current (ISC)	15.95A	16.00A	16.05A	16.10A	16.15A	16.20A
Voltage at Maximum Power (Vmp)	40.0V	40.2V	40.4V	40.6V	40.8V	41.0V
Current at Maximum Power (Imp)	15.13A	15.18A	15.23A	15.28A	15.32A	15.37A
Module Efficiency (%)	22.38	22.56	22.75	22.93	23.12	23.31
Operating Temperature	-40°C to +85°C					
Maximum System Voltage	1000V DC/1500V DC					
Fire Resistance Rating	Class C					
Maximum Series Fuse Rating	30A					

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

ELECTRICAL CHARACTERISTICS AT NOCT

Maximum Power (Pmax)	457W	461W	465W	469W	473W	477W
Open Circuit Voltage (VOC)	46.1V	46.3V	46.5V	46.7V	46.9V	47.1V
Short Circuit Current (ISC)	12.87A	12.91A	12.96A	13.00A	13.04A	13.08A
Voltage at Maximum Power (Vmp)	37.4V	37.6V	37.8V	38.0V	38.2V	38.4V
Current at Maximum Power (Imp)	12.22A	12.27A	12.31A	12.35A	12.39A	12.43A

NOCT: Irradiance 800W/m^2, Ambient temperature 20°C, Wind Speed 1 m/s

ELECTRICAL CHARACTERISTICS WITH DIFFERENT REAR SIDE POWER GAIN (EXAMPLE: AS-7M144N-BHC-610W)

Power Gain	P_{max}	V_{OC}	I_{SC}	V_{mp}	I_{mp}
10%	671W	48.7V	17.63A	40.2V	16.70A
15%	702W	48.7V	18.45A	40.2V	17.47A
20%	732W	48.7V	19.23A	40.2V	18.21A
25%	763W	48.7V	20.05A	40.2V	18.99A
30%	793W	48.7V	20.84A	40.2V	19.73A

MECHANICAL CHARACTERISTICS

Cell type	Monocrystalline N-type 182*105mm
Number of cells	132 (6x22)
Module dimensions	2382x1134x30mm
Weight	28kg
Front/Back Glass	2mm AR coated tempered glass/2mm tempered glass
Frame	Anodized aluminum alloy
Junction box	IP68, 3 diodes
Cable	4mm^2, 300mm; Customized Length
Connector	MC4 or MC4 compatible

TEMPERATURE CHARACTERISTICS

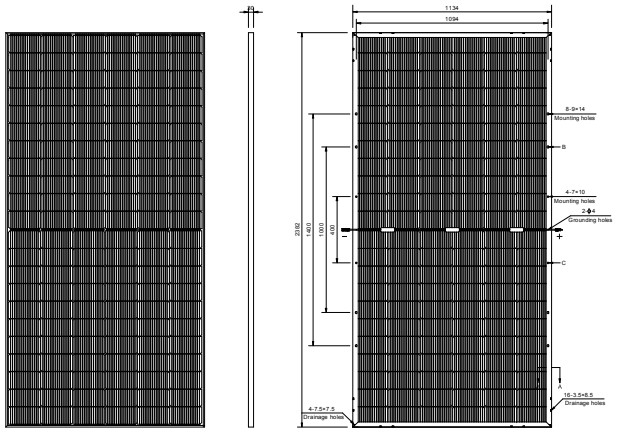
Nominal Operating Cell Temperature (NOCT)	43°C±2°C
Temperature Coefficients of P_{max}	-0.30%/°C
Temperature Coefficients of V_{OC}	-0.25%/°C
Temperature Coefficients of I_{SC}	0.045%/°C

PACKAGING

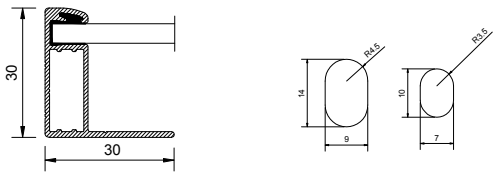
Standard packaging	36pcs/pallet
Module quantity per 20' container	144pcs
Module quantity per 40' container	720pcs(HQ)

ENGINEERING DRAWINGS

Unit: mm



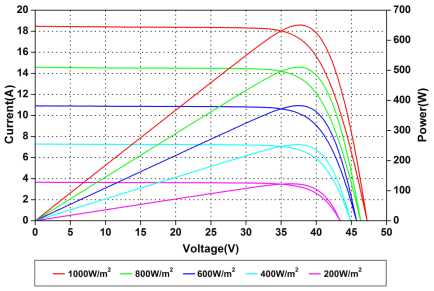
Front Side Back



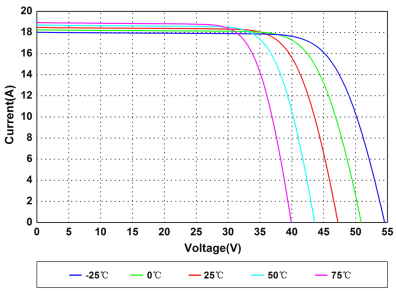
Section A-A B C

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

IV CURVES



Current-Voltage and Power-Voltage Curves at Different Irradiances



Current-Voltage Curves at Different Temperatures