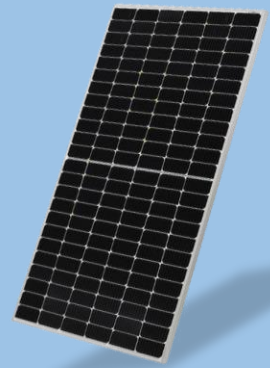




AF-6M144-HC

440~455 Watt



MONO PERC HALF-CELL & HALF-CUT MODULE

sustainability the smart way

KEY FEATURES



Multi-Busbar Solar Cell

Multi-Busbar (MBB) solar cell adopts new technology to improve the efficiency of modules, offers a better aesthetic appearance, making it perfect for rooftop installation.



High Efficiency

High module conversion efficiency up to 21.27% by using innovative half-cell design and MBB cell technology.



PID Resistance

Potential induced degradation (PID) resistance.



Low-Light Performance

Low temperature coefficient and excellent performance under high temperature and low light conditions.



Severe Weather Resilience

Robust aluminum frame ensures the modules to withstand wind loads up to 2400Pa and snow loads up to 5400Pa.



Durability Against Extreme Environmental Conditions

High reliability against extreme environmental conditions (passing salt mist, ammonia and hail tests).

CERTIFICATIONS

- IEC 61215, IEC 61730, UL 1703, IEC 62716, IEC 61701, IEC TS 62804, CE
- ISO 9001:2015: Quality management system
- ISO 14001:2015: Environmental management system
- ISO 45001:2018: Occupational health and safety management system



LINEAR PERFORMANCE WARRANTY

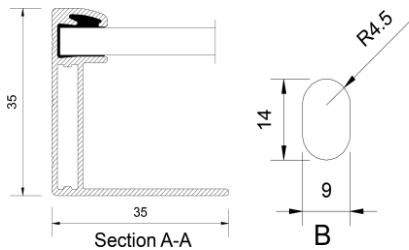
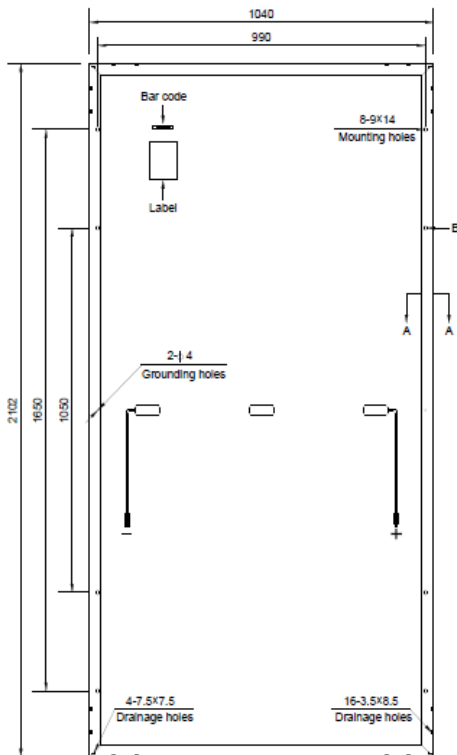
- 20 Year Product Warranty
- 30 Year Linear Power Warranty



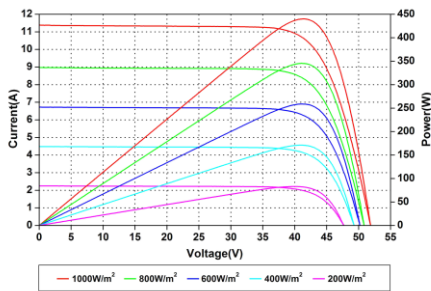
TECHNICAL DATA

AF-6M144-HC 440~455W

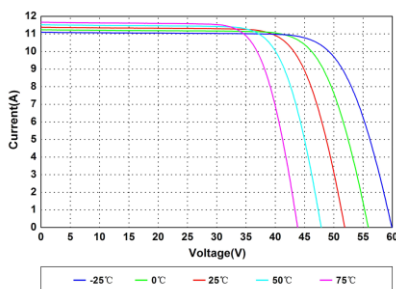
DIMENSIONS OF PV MODULE (mm)



I-V CURVES OF PV MODULE



P-V CURVES OF PV MODULE



ELECTRICAL DATA (STC)

Parameter	440W	445W	450W	455W
Peak Power Watts- P_{MAX} (Wp)*	440W	445W	450W	455W
Maximum Power Voltage- V_{MPP} (V)	41.4V	41.6V	41.8V	42.0V
Maximum Power Current- I_{MPP} (A)	10.63A	10.70A	10.77A	10.84A
Open Circuit Voltage- V_{OC} (V)	49.8V	50.0V	50.2V	50.4V
Short Circuit Current- I_{SC} (A)	11.16A	11.22A	11.28A	11.34A
Module Efficiency (%)	20.13	20.36	20.58	20.81

STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5;

*Measuring tolerance: ±3%.

ELECTRICAL DATA (NMOT)

Parameter	327W	331W	335W	339W
Maximum Power- P_{MAX} (Wp)	327W	331W	335W	339W
Maximum Power Voltage- V_{MPP} (V)	37.6V	37.8V	38.0V	38.2V
Maximum Power Current- I_{MPP} (A)	8.70A	8.76A	8.82A	8.88A
Open Circuit Voltage- V_{OC} (V)	45.8V	46.0V	46.2V	46.4V
Short Circuit Current- I_{SC} (A)	9.04A	9.09A	9.14A	9.19A

NMOT: Irradiance at 800W/m², Ambient Temperature 20°C, Wind Speed 1 m/s.

MECHANICAL DATA

Solar Cells	Monocrystalline PERC 166×83 mm
Number of Cells	144 (6×24)
Module Dimensions	2102×1040×35 mm (82.76×40.94×1.38 inches)
Weight	24 kg (52.9 lbs)
Glass	3.2 mm (0.13 inches) tempered glass with AR coating
Frame	Anodized Aluminum Alloy
Junction box	IP 68 rated, 3 diodes
Cables	4 mm ² (0.006 inches ²), Portrait: 300 mm (11.81 inches); Landscape: 1400 mm (55.12 inches)
Connector	MC4 or MC4 compatible

TEMPERATURE RATINGS

NMOT (Nominal Module Operating Temperature)	43°C±2°C
Temperature Coefficient of P_{MAX}	-0.36%/°C
Temperature Coefficient of V_{OC}	-0.28%/°C
Temperature Coefficient of I_{SC}	0.05%/°C

MAXIMUM RATINGS

Operational Temperature	-40°C to +85°C
Maximum System Voltage	1000V DC/1500V DC
Max Series Fuse Rating	25A
Fire Resistance Rating	Type 1 (in accordance with UL1703)/Class C (IEC61730)

PACKAGING CONFIGURATION

Standard packaging	31 pcs/pallet
Module quantity per 20 container	155 pcs
Module quantity per 40 container	682 pcs (HQ)

WARRANTY

First year degradation of less than 2.5%
Gradual annual power decline of 0.89% to 0.58% from year 2 to 30
No less than 80.6% actual power output

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.