Mono IBC 182mm 108 Cells

MS(425-450)BC-54H Black Frame

425/430/435/440/445/450WP

MAYSUNSOLAR.COM

APPLICATIONS >>

On-grid residential roof-tops

On-grid commercial/ industrial roof-tops

Advanced Solar Technology

IBC

The most advanced technology

The most advanced technology for mass-produced photovoltaic modules, cell technology is far advanced than PERC and Topcon technology.

Higher conversion efficiency

The short circuit current density of IBC cells is 5-8% higher than that of ordinary cells. No bus bars on the front to reduce optical loss and maximize battery efficiency and power generation.

Low temperature coefficient

IBC solar panels feature a low temperature coefficient, which allows for better performance in hot climates.

Better appearance

There is no bus bars on the front, tight cell layout, overall unity, making a beautiful and elegant appearance.

More application scenarios

IBC PV modules have a wider application scenario and are especially suitable for building applied PV.

Higher reliability

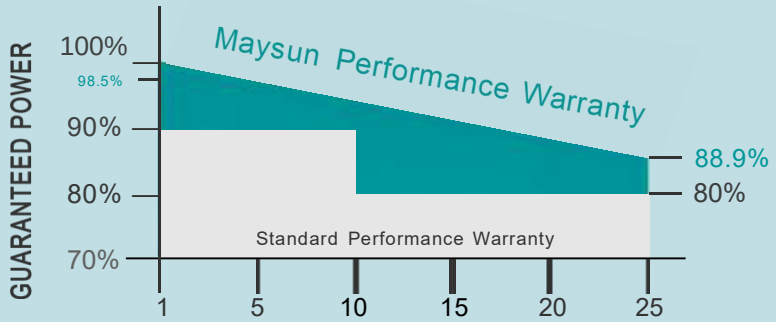
Compared to PV modules made by front welding, the reliability and stability of IBC modules are greatly increased due to the lack of solder joints.

MAXIMUM EFFICIENCY

23.2%

POSITIVE POWER TOLERANCE

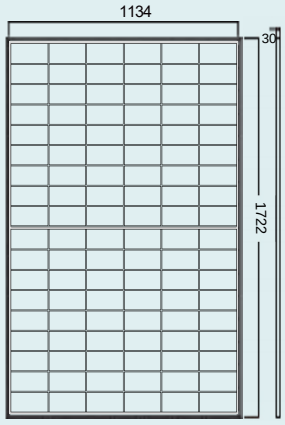
0 ~+5W



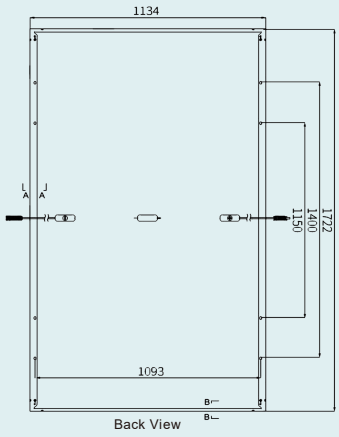
Maysun Solar

MS(425-450)BC-54H Black Frame

DIMENSIONS OF PV MODULE(mm)

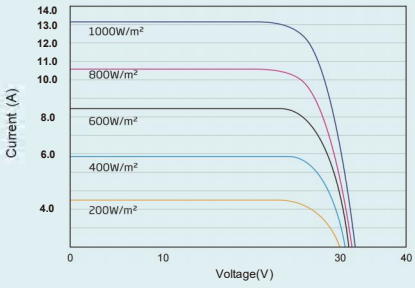


Front View

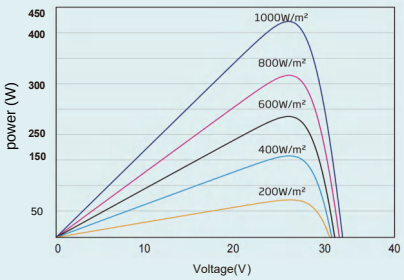


Back View

I-V CURVES OF PV MODULE (430W)



P-V CURVES OF PV MODULE (430W)



ELECTRICAL DATA (STC)

Peak Power Watts-P_{MAX} (Wp)*	425	430	435	440	445	450
Power Tolerance-P_{MAX} (W)	0 ~ +5					
Maximum Power Voltage-V_{MPP} (V)	32.64	32.84	33.04	33.24	33.44	33.64
Maximum Power Current-I_{MPP} (A)	13.03	13.10	13.17	13.25	13.32	13.39
Open Circuit Voltage-V_{OC} (V)	38.93	39.13	39.33	39.53	39.73	39.93
Short Circuit Current-I_{SC} (A)	14.07	14.15	14.22	14.29	14.36	14.43
Module Efficiency η_m (%)	21.8	22.0	22.3	22.6	22.9	23.2

STC: Irradiance 1000W/m², Cell Temperature 25℃,Air Mass AM1.5.
*Measuring tolerance: ±3%.

ELECTRICAL DATA (NOCT)

Maximum Power-P_{MAX} (Wp)	318	321	325	329	333	337
Maximum Power Voltage-V_{MPP} (V)	29.78	29.97	30.15	30.33	30.51	30.69
Maximum Power Current-I_{MPP} (A)	10.67	10.72	10.78	10.85	10.90	10.96
Open Circuit Voltage-V_{OC} (V)	36.55	36.74	36.93	37.12	37.31	37.50
Short Circuit Current-I_{SC} (A)	11.36	11.43	11.49	11.54	11.61	11.67

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

MECHANICAL DATA

Solar Cells	Monocrystalline
Cell Orientation	108 cells
Module Dimensions	1722 x 1134 x 30mm
Weight	20.8 kg
Glass	3.2 mm High Transmission, AR Coated Heat Strengthened Glass
Encapsulant Material	EVA
Backsheet	White
Frame	30 mm Black, anodized aluminium alloy
J-Box	IP 68 rated (3 bypass diodes)
Cables	Photovoltaic Technology Cable 4.0mm² (0.006 inches²) Portrait: N 1200mm/P 1200mm (47.24/47.24inches) Length can be customized
Connector	MC4 Compatible

*Please refer to regional datasheet for specified connector.

TEMPERATURE RATINGS

NOCT(Nominal Operating Cell Temperature)	45°C (±2°C)
Temperature Coefficient of P_{MAX}	- 0.29%/℃
Temperature Coefficient of V_{OC}	- 0.23%/℃
Temperature Coefficient of I_{SC}	0.05%/℃

MAXIMUMRATINGS

Operational Temperature	- 40 ~ +85℃
Maximum System Voltage	1500V DC (IEC)
Max Series Fuse Rating	25A
Mechanical Performance	P 5400 Pa/N 2400 Pa
Hail Test Conditions	Diameter 25 mm Impact Speed 23 m/s

WARRANTY

25 year Product Workmanship Warranty
25 year Power Warranty
1.5% first year degradation
0.4% Annual Power Attenuation

*Please refer to product warranty for details.

PACKAGING CONFIGUREATION

Modules per pallet: 36 pieces
Modules per 40' container: 936 pieces

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

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

Website: www.maysunsolar.com