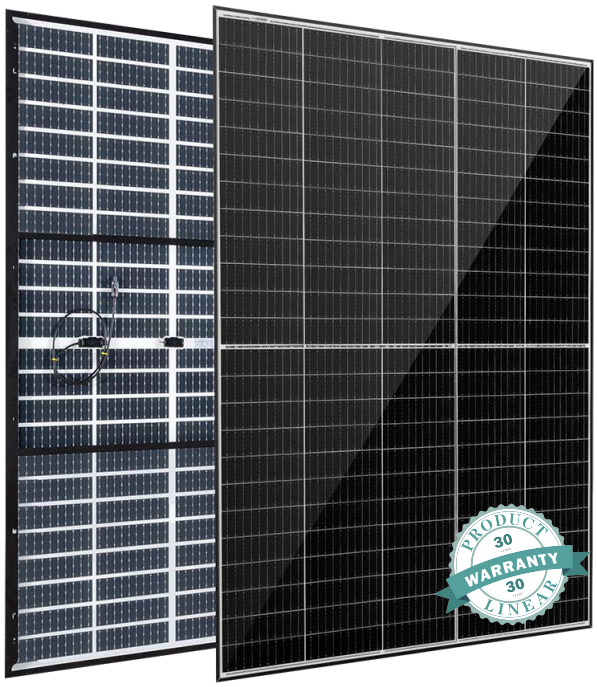
Mono PERC 210mm 120 Cells

MS(390-410)MDG-40H Black Frame Bifacial

390/395/400/405/410 WP

Maysun Solar

MAYSUNSOLAR. COM



Reinforced Glass-Glass Designed for Heavy Snow Regions

TwiSun X

- Black Frame

30-year Lifespan
Wide range of applications for severe weather with a service life of over 30 years.

High Snow Load
6000 Pa front snow load enable Twisun X quite suitable for heavy snow area.

Higher Mechanical Load
Upgraded T6 frame and stronger design greatly enhance Twisun X mechanical load.

Adaptability
1/3-cut low-current cell technology adaptable to mainstream European inverters.

Safety
Higher fire safety, more suitable for high density residential areas.

High Power
Bifacial power generation with 5%-25% increase in output for different conditions.

APPLICATIONS >>

On-grid residential roof-tops

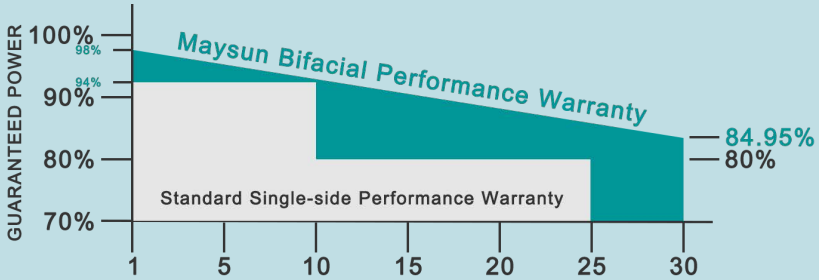
On-grid commercial/ industrial roof-tops

MAXIMUM EFFICIENCY

21.2%

POSITIVE POWER TOLERANCE

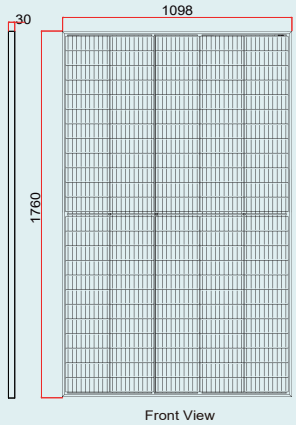
0 ~+5W



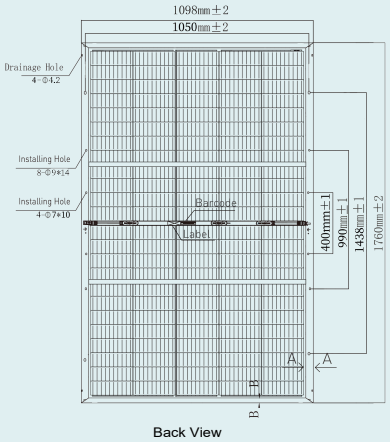
Maysun Solar

MS(390-410)MDG-40H Bifacial

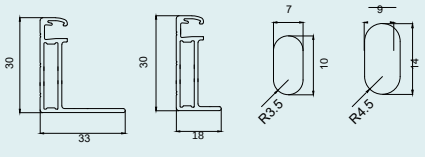
DIMENSIONS OF PV MODULE(mm)



Front View

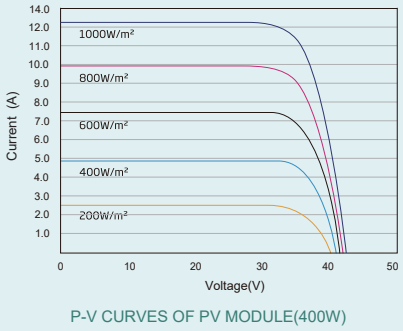


Back View

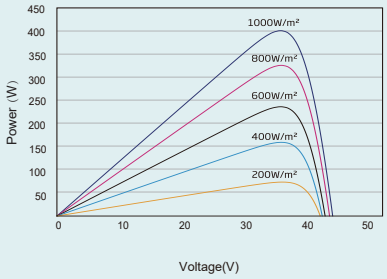


A-A B-B C-C D-D

I-V CURVES OF PV MODULE(400W)



P-V CURVES OF PV MODULE(400W)



ELECTRICAL DATA (STC)

Peak Power Watts-P_{MAX} (Wp)*	390	395	400	405	410
Power Tolerance-P_{MAX} (W)	0 ~ +5				
Maximum Power Voltage-V_{MPP} (V)	33.8	34.0	34.2	34.4	34.6
Maximum Power Current-I_{MPP} (A)	11.54	11.62	11.70	11.77	11.84
Open Circuit Voltage-V_{OC} (V)	40.8	41.0	41.2	41.4	41.6
Short Circuit Current-I_{SC} (A)	12.14	12.21	12.28	12.34	12.41
Module Efficiency η m (%)	20.3	20.5	20.8	21.1	21.2

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

Electrical characteristics with different rear side power gain

5% Maximum Power-P_{MAX} (Wp)	409.5	414.75	420.0	425.25	430.5
5% Module Efficiency η m (%)	21.32	21.52	21.84	22.15	22.26
15% Maximum Power-PMAX (Wp)	448.5	454.25	460	465.75	471.5
15% Module Efficiency η m (%)	23.35	23.58	23.92	24.26	24.38
25% Maximum Power-PMAX (Wp)	487.5	493.75	500.0	506.25	512.5
25% Module Efficiency η m (%)	25.38	25.63	26.0	26.38	26.5

Power Bifaciality:70±5%.

ELECTRICAL DATA (NOCT)

Maximum Power-P_{MAX} (Wp)	295	298	302	306	310
Maximum Power Voltage-V_{MPP} (V)	31.8	32.0	32.2	32.5	32.8
Maximum Power Current-I_{MPP} (A)	9.26	9.32	9.38	9.41	9.45
Open Circuit Voltage-V_{OC} (V)	38.4	38.6	38.8	38.9	39.1
Short Circuit Current-I_{SC} (A)	9.78	9.84	9.90	9.95	9.99

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

MECHANICAL DATA

Solar Cells	Monocrystalline
Cell Orientation	120 cells (5 x 24)
Module Dimensions	1760 mm ×1098 mm ×30 mm
Weight	20 kg
Front Glass	1.6 mm, High Transmission, AR Coated Heat Strengthened Glass
Encapsulant material	POE
Back Glass	1.6 mm, High Transmission, Heat Strengthened Glass
Frame	30 mm,Black, anodized aluminium alloy
J-Box	IP 68 rated (3 bypass diodes)
Cables	Photovoltaic Technology Cable 4.0mm² Portrait: N 1000mm/P 1000mm Length can be customized
Connector	MC4 Compatible

*Please refer to regional datasheet for specific connector.

TEMPERATURE RATINGS

NOCT(Nominal Operating Cell Temperature)	43°C (±2°C)
Temperature Coefficient of P_{MAX}	- 0.35%/℃
Temperature Coefficient of V_{OC}	- 0.27%/℃
Temperature Coefficient of I_{SC}	0.048%/°C

APPLICATION ENVIRONMENT

Operational Temperature	-40~+85°C
Maximum System Voltage	1500VDC
Max Series Fuse Rating	(IEC) 25A
Mechanical Performance	P 6000 Pa/N 2400Pa

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

WARRANTY

30 years Product Warranty
30 years Power Warranty
2% First Year Degradation
0.45% Annual Power Degradation

(Please refer to product warranty for details)

PACKAGING CONFIGURATION

Modules per pallet: 37 pieces
Modules per 40' container: 962 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