

Mono PERC 210mm 120 Cells

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

390/395/400/405/410 WP



MAYSUNSOLAR.COM



Lightweight Double-Glass Tailored for European Distribution

Twisun

- Black Frame



30-year Lifespan

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



Lightweight

Ultra-thin dual-glass design, tailored for European distribution and easy installation.



Reliability

Upgraded T6 aluminium frame for 20% more mechanical load strength.



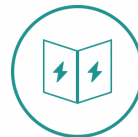
Adaptability

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

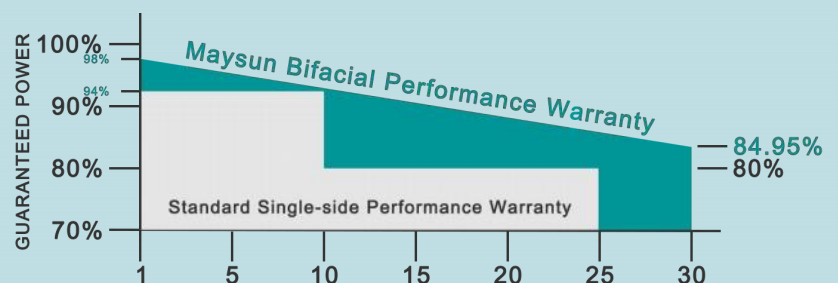


MAXIMUM EFFICIENCY

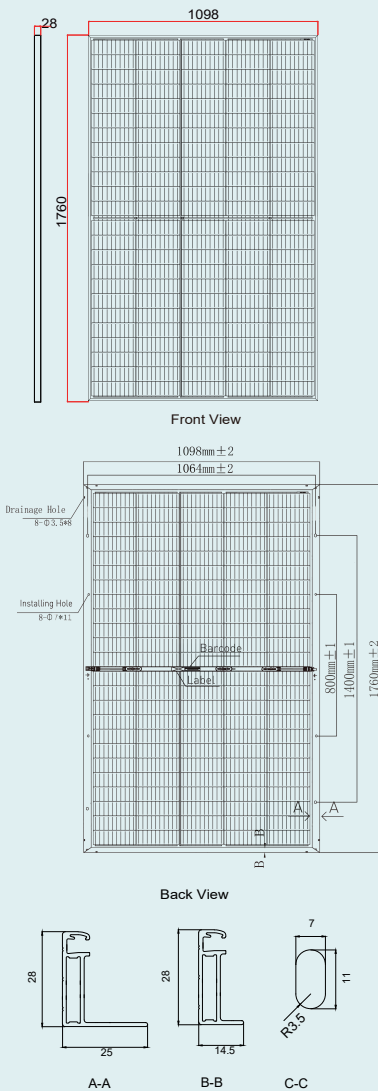
21.2%

POSITIVE POWER TOLERANCE

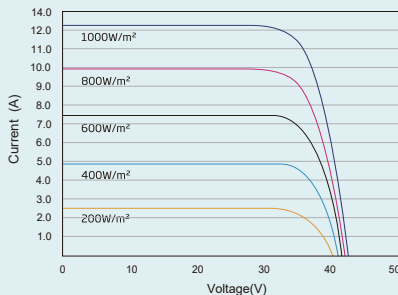
0 ~+5W



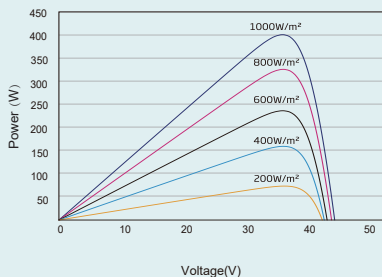
DIMENSIONS OF PV MODULE(mm)



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/m², 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-P _{MAX} (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-P _{MAX} (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/m², Ambient Temperature 20°C, Wind Speed 1m/s.

MECHANICAL DATA

Solar Cells	Monocrystalline
Cell Orientation	120 cells (5 x 24)
Module Dimensions	1760±2mm x 1098±2mm x 28±1mm
Weight	19.5kg±3%
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	28±1mm, Black, anodized aluminium alloy
J-Box	IP 68 rated (3 bypass diodes)
Cables	Photovoltaic Technology Cable 4.0mm ² Portrait: N 300mm/P 300mm 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%/°C
Temperature Coefficient of V _{OC}	- 0.27%/°C
Temperature Coefficient of I _{SC}	0.048%/°C

(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)

APPLICATION ENVIRONMENT

Operational Temperature	-40~+85°C
Maximum System Voltage	1500VDC
Max Series Fuse Rating	(IEC) 25A
Mechanical Performance	P 3600 Pa/N 1600Pa

PACKAGING CONFIGURATION

Modules per pallet:	39 pieces
Modules per 40' container:	1014 pieces



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

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