

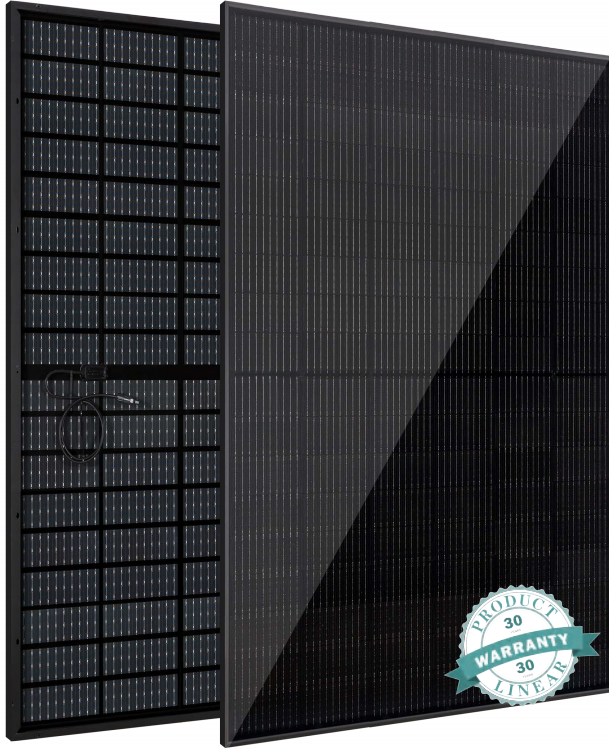
Mono N-Type 182mm 108 Cells

MS(420-435)MDG-54H N-Topcon Double Glass

420/425/430/435 WP



MAYSUNSOLAR.COM



New Technology Tailored for European Distribution

N-TOPCON

- Full Black

APPLICATIONS >>



On-grid residential
roof-tops



On-grid commercial/
industrial roof-tops



30-year Lifespan

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



Lower Degradation

N-type solar technology gains slower power degradation and excellent low-light performance.



Elegance

Full-black aesthetics, the best choice for BAPV. More excellent for snowy environments.



Adaptability

1/2-cut low-current cell technology adaptable to mainstream European inverters.



Safety

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



High Power

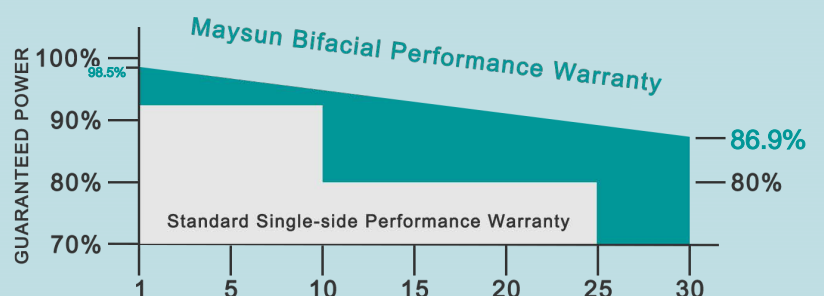
Bifacial power generation with 5%-30% increase in output for different conditions.

MAXIMUM EFFICIENCY

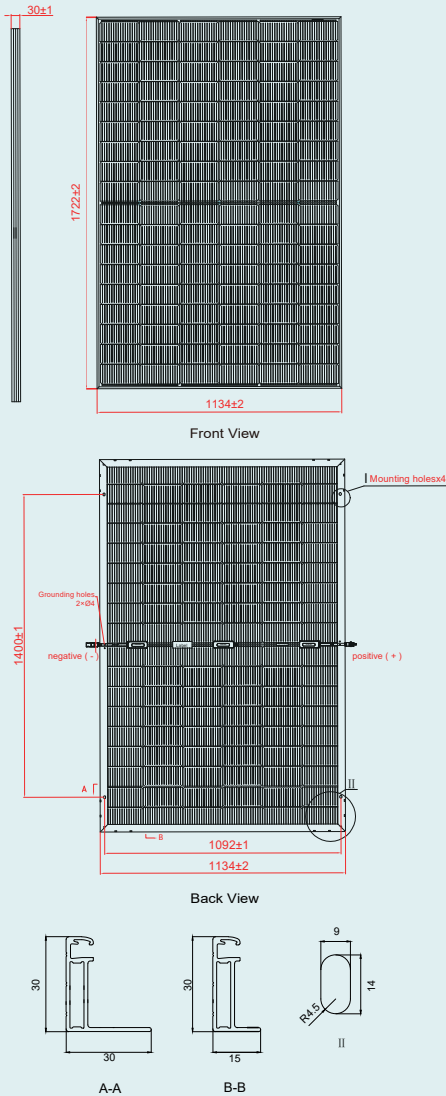
22.28%

POSITIVE POWER
TOLERANCE

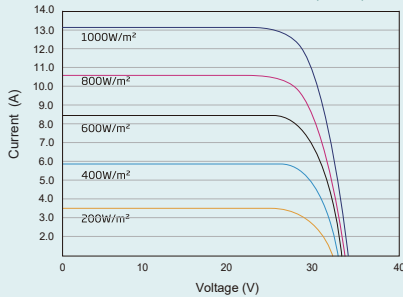
0 ~+5W



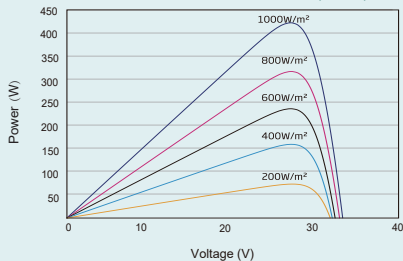
DIMENSIONS OF PV MODULE (mm)



I-V CURVES OF PV MODULE (420W)



P-V CURVES OF PV MODULE (420W)



ELECTRICAL DATA (STC)

Peak Power Watts- P_{MAX} (Wp)*	420	425	430	435
Power Tolerance- P_{MAX} (W)	0 ~ +5			
Maximum Power Voltage- V_{MPP} (V)	31.51	31.70	31.88	32.07
Maximum Power Current- I_{MPP} (A)	13.33	13.41	13.49	13.57
Open Circuit Voltage- V_{OC} (V)	38.11	38.30	38.49	38.68
Short Circuit Current- I_{SC} (A)	14.07	14.15	14.23	14.31
Module Efficiency η m (%)	21.51	21.76	22.02	22.28

STC: Irradiance 1000 W/m^2 , Cell Temperature 25°C , Air Mass AM1.5.
*Measuring tolerance: $\pm 3\%$.

Electrical characteristics with different rear side power gain

10% Maximum Power- P_{MAX} (Wp)	462	467.5	473	478.5
10% Module Efficiency η m (%)	23.66	23.94	24.22	24.51
20% Maximum Power- P_{MAX} (Wp)	504	510	516	522
20% Module Efficiency η m (%)	25.81	26.11	26.42	26.74
30% Maximum Power- P_{MAX} (Wp)	546	552.5	559	565.5
30% Module Efficiency η m (%)	27.96	28.29	28.63	28.96

Power Bifaciality: $80 \pm 5\%$.

ELECTRICAL DATA (NOCT)

Maximum Power- P_{MAX} (Wp)	316	320	323	327
Maximum Power Voltage- V_{MPP} (V)	29.34	29.50	29.63	29.79
Maximum Power Current- I_{MPP} (A)	10.76	10.83	10.91	10.98
Open Circuit Voltage- V_{OC} (V)	36.20	36.38	36.56	36.74
Short Circuit Current- I_{SC} (A)	11.36	11.42	11.49	11.55

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

MECHANICAL DATA

Solar Cells	Monocrystalline
Cell Orientation	N-TOPCon 182×91 (108 pcs) (6 x 18)
Module Dimensions	$1722 \times 1134 \times 30$ mm
Weight	24 kg
Front Glass	2.0 mm AR coating semi-tempered glass, low iron
Encapsulant Material	POE
Back Glass	2.0 mm AR coating semi-tempered glass, low iron
Frame	30 mm Black, Anodized aluminium alloy
J-Box	IP 68 rated (3 bypass diodes)
Cables	Photovoltaic Technology Cable 4.0 mm^2 1000 mm (+) / 1000 mm (-) or Customized Length
Connector	MC4 Compatible

*Please refer to regional datasheet for specific connector.

TEMPERATURE RATINGS

NOCT (Nominal Operating Cell Temperature)	$44^\circ\text{C} (\pm 2^\circ\text{C})$
Temperature Coefficient of P_{MAX}	$-0.320\% / ^\circ\text{C}$
Temperature Coefficient of V_{OC}	$-0.270\% / ^\circ\text{C}$
Temperature Coefficient of I_{SC}	$+0.048\% / ^\circ\text{C}$

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

WARRANTY

30 Years Product Warranty
30 Years Power Warranty
1.5% First Year Degradation
0.4% Annual Power Degradation

(Please refer to product warranty for details)

APPLICATION ENVIRONMENT

Operational Temperature	$-40 \sim +85^\circ\text{C}$
Maximum System Voltage	1500V DC
Max Series Fuse Rating	(IEC) 25A
Mechanical Performance	P 5400 Pa/N 2400 Pa

PACKAGING CONFIGURATION

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



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

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

Website: www.maysunsolar.com