

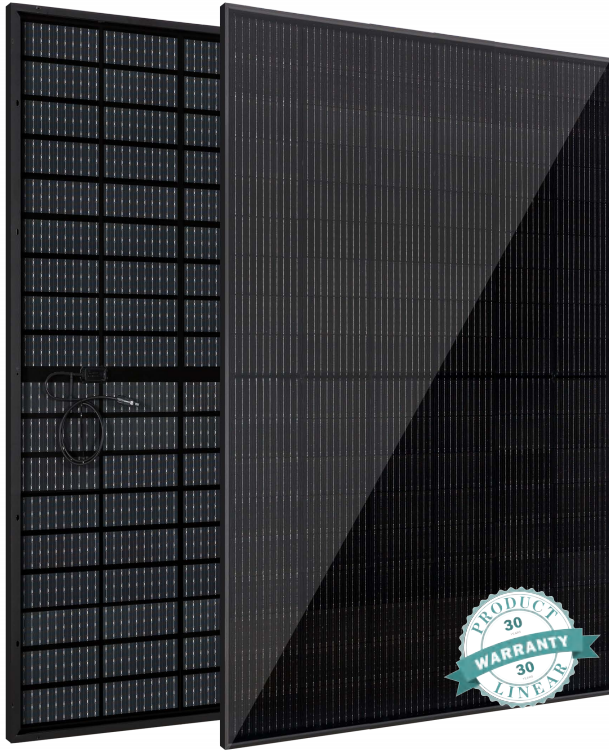
Mono N-Type 182mm 108 Cells

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



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.

APPLICATIONS >>



On-grid residential
roof-tops



On-grid commercial/
industrial roof-tops

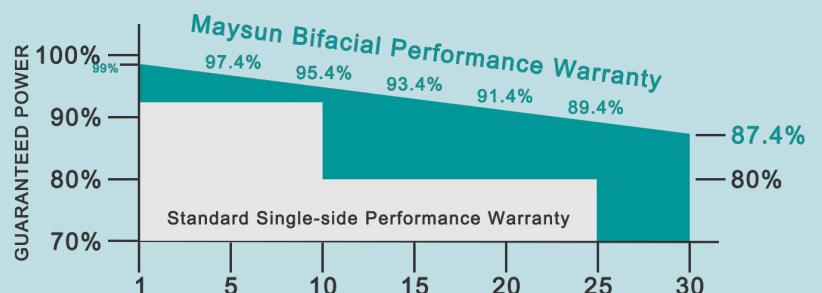


MAXIMUM EFFICIENCY

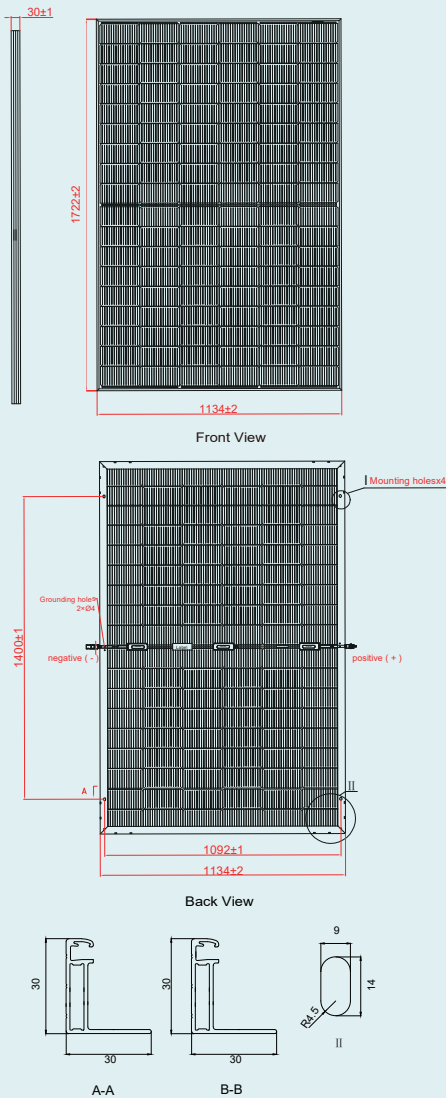
22.8%

POSITIVE POWER
TOLERANCE

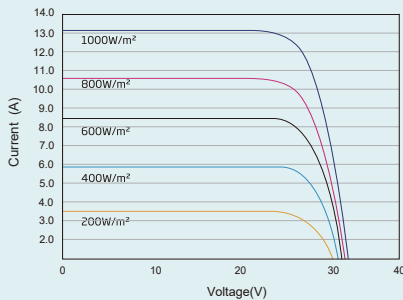
0 ~+5W



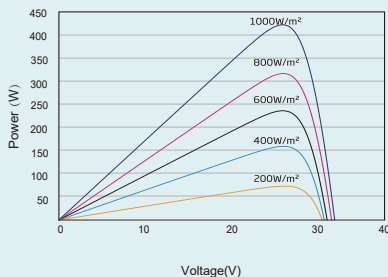
DIMENSIONS OF PV MODULE(mm)



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) | 31.90 | 32.10 | 32.30 | 32.50 |
| Maximum Power Current- I_{MPP} (A) | 13.17 | 13.24 | 13.32 | 13.39 |
| Open Circuit Voltage- V_{OC} (V) | 38.50 | 38.70 | 38.90 | 39.10 |
| Short Circuit Current- I_{SC} (A) | 13.83 | 13.91 | 13.99 | 14.07 |
| 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 | 324 | 328 |
| Maximum Power Voltage- V_{MPP} (V) | 31.8 | 32.0 | 32.2 | 32.5 |
| Maximum Power Current- I_{MPP} (A) | 9.26 | 9.32 | 9.38 | 9.41 |
| Open Circuit Voltage- V_{OC} (V) | 36.58 | 36.77 | 36.96 | 37.15 |
| Short Circuit Current- I_{SC} (A) | 11.06 | 11.13 | 11.19 | 11.26 |

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 | 24.0 kg |
| Front Glass | 2.0mm AR coating semi-tempered glass, low iron |
| Encapsulant material | POE |
| Back Glass | 2.0mm AR coating semi-tempered glass, low iron |
| Frame | Anodized aluminium alloy |
| J-Box | IP 68 rated (3 bypass diodes) |
| Cables | Photovoltaic Technology Cable 4.0mm ² 300mm(+)/1000mm(-) or Customized Length |
| Connector | MC4 Compatible |

*Please refer to regional datasheet for specific connector.

TEMPERATURE RATINGS

| | |
|--|--|
| NOCT(Nominal Operating Cell Temperature) | $45^\circ\text{C} (\pm 2^\circ\text{C})$ |
| Temperature Coefficient of P_{MAX} | $-0.30\% / ^\circ\text{C}$ |
| Temperature Coefficient of V_{OC} | $-0.25\% / ^\circ\text{C}$ |
| Temperature Coefficient of I_{SC} | $+0.046\% / ^\circ\text{C}$ |

(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% First Year Degradation |
| 0.42% Annual Power Degradation |

(Please refer to product warranty for details)

APPLICATION ENVIRONMENT

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

PACKAGING CONFIGURATION

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



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

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