

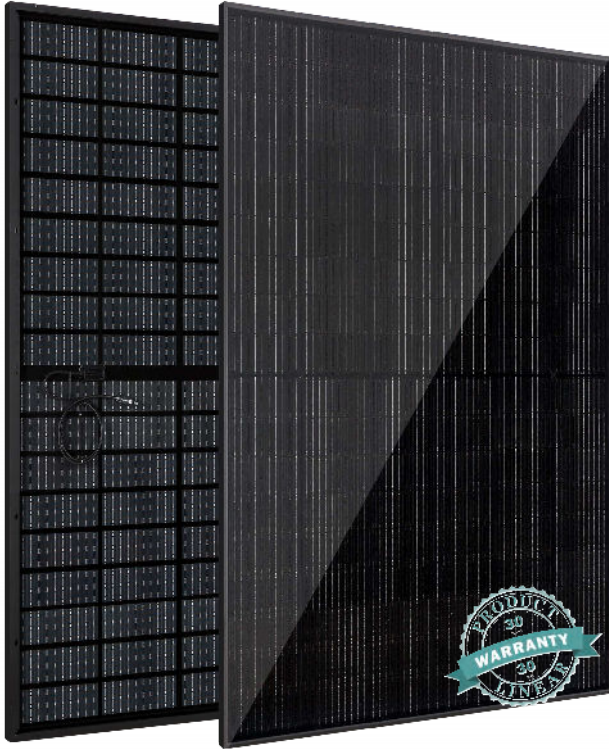
Mono N-Type 182mm 108 Cells

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

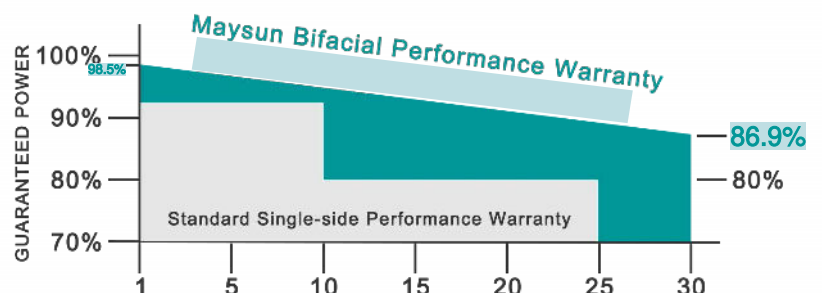


MAXIMUM EFFICIENCY

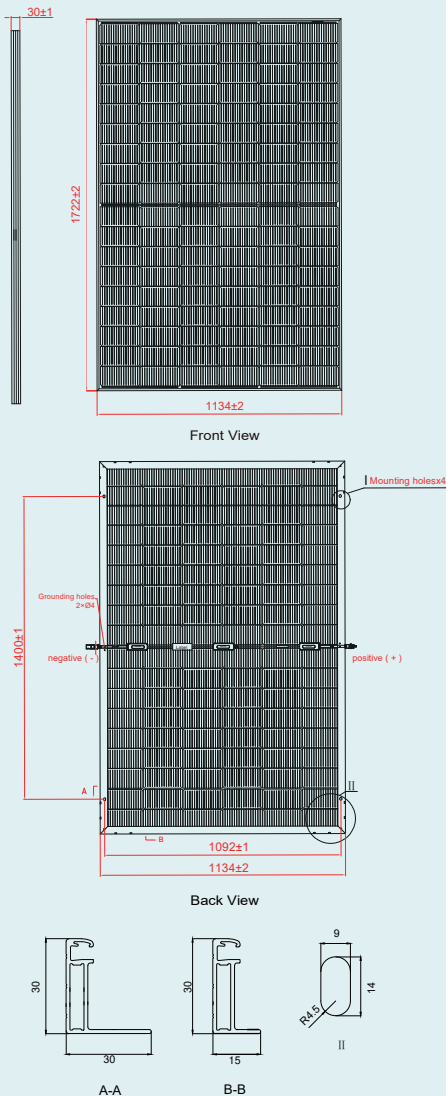
22.28%

POSITIVE POWER
TOLERANCE

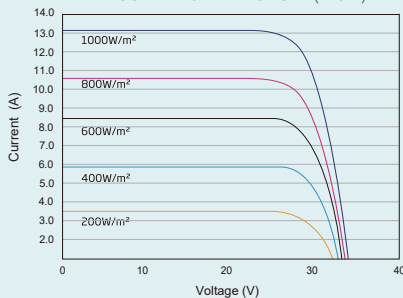
0 ~+5W



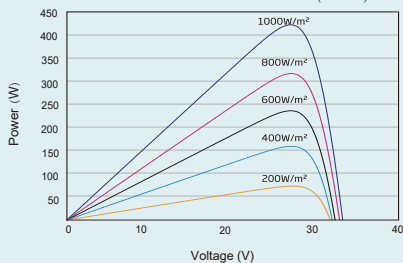
DIMENSIONS OF PV MODULE (mm)



I-V CURVES OF PV MODULE (420W)



P-V CURVES OF PV MODULE (420W)



ELECTRICAL DATA (STC)

| Parameter | 420 | 425 | 430 | 435 |
|--------------------------------------|--------|-------|-------|-------|
| 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 1000W/m², Cell Temperature 25°C, Air Mass AM1.5.
*Measuring tolerance: ±3%.

Electrical characteristics with different rear side power gain

| Parameter | 462 | 467.5 | 473 | 478.5 |
|------------------------------------|-------|-------|-------|-------|
| 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±5%.

ELECTRICAL DATA (NOCT)

| Parameter | 316 | 320 | 323 | 327 |
|--------------------------------------|-------|-------|-------|-------|
| 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 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s.

MECHANICAL DATA

| | |
|----------------------|--|
| Solar Cells | Monocrystalline |
| Cell Orientation | N-TOPCon 182 x 91 (108 pcs) (6 x 18) |
| Module Dimensions | 1722 x 1134 x 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°C (±2°C) |
| Temperature Coefficient of P_{MAX} | -0.320% /°C |
| Temperature Coefficient of V_{OC} | -0.270% /°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 |
| 1.5% First Year Degradation |
| 0.4% Annual Power Degradation |

(Please refer to product warranty for details)

APPLICATION ENVIRONMENT

| | |
|-------------------------|---------------------|
| Operational Temperature | -40~+85°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.

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