

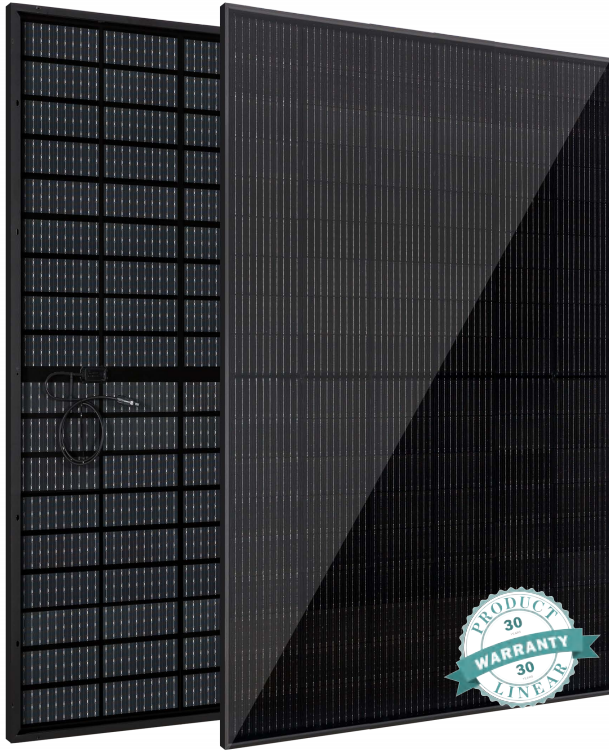
Mono N-Type 182mm 108 Cells

**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

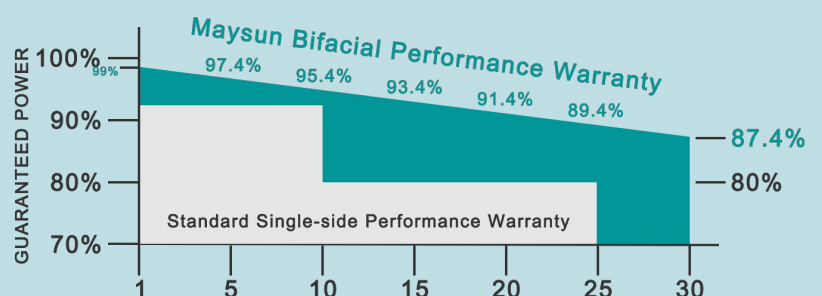


MAXIMUM EFFICIENCY

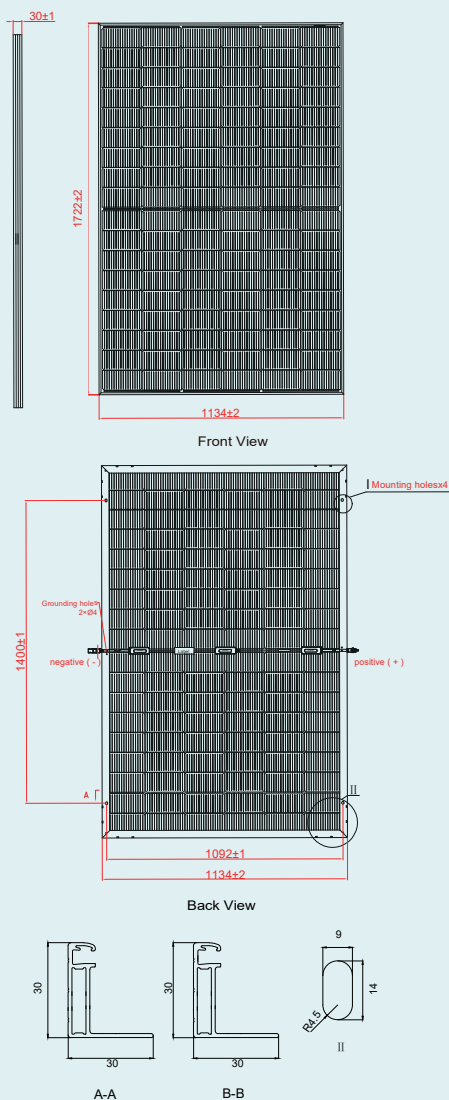
**22.8%**

POSITIVE POWER  
TOLERANCE

**0 ~+5W**



### DIMENSIONS OF PV MODULE(mm)



### 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 $\eta_m$ (%)	21.51	21.76	22.02	22.28

STC: Irradiance  $1000W/m^2$ , Cell Temperature  $25^\circ C$ , 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 $\eta_m$ (%)	23.66	23.94	24.22	24.51
20% Maximum Power- $P_{MAX}$ (Wp)	504	510	516	522
20% Module Efficiency $\eta_m$ (%)	25.81	26.11	26.42	26.74
30% Maximum Power- $P_{MAX}$ (Wp)	546	552.5	559	565.5
30% Module Efficiency $\eta_m$ (%)	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  $800W/m^2$ , Ambient Temperature  $20^\circ C$ , Wind Speed  $1m/s$ .

### MECHANICAL DATA

Solar Cells	Monocrystalline
Cell Orientation	N-TOPCon $182 \times 91$ (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 <sup>2</sup> 300mm(+)/1000mm(-) or Customized Length
Connector	MC4 Compatible

\*Please refer to regional datasheet for specific connector.

### TEMPERATURE RATINGS

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

(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)

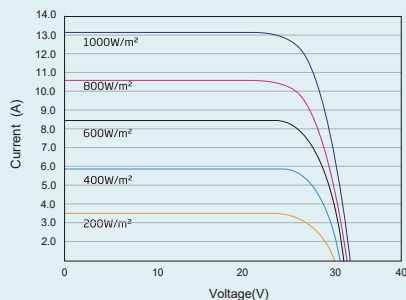
### APPLICATION ENVIRONMENT

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

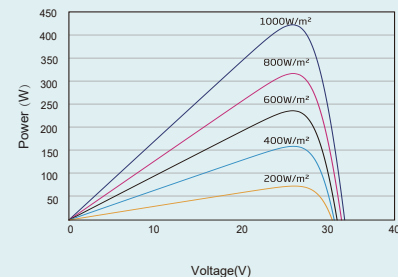
### PACKAGING CONFIGURATION

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

### I-V CURVES OF PV MODULE(420W)



### P-V CURVES OF PV MODULE(420W)



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

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