

N-TOPCON

1/2 Cut

Double Glass 425-445W

MS(425-445)MDG-54HX
Mono N-Type 182mm 108 Cells

**New Technology Tailored
for European Distribution**



Industry-leading Process Technology

Leading TOPCON cell/module design, taking into account both product performance and reliability.



Super Strong Power Generation Capacity

The most efficient mass-produced battery technology, with component efficiency reaching 22.80%.



Module

Innovative rectangular silicon wafer, effectively reduced LCOE and improved ROI.



High Reliability

Adapt to harsh installation environments, with 5400 Pa on the front and 2400 Pa on the back.



Strong Adaptability to Complex Environments

Excellent weak light response and lower temperature coefficient bring high power generation capacity around the clock.



Peace of Mind Warranty

Very low efficiency degradation (LID/PID) and longer service life.

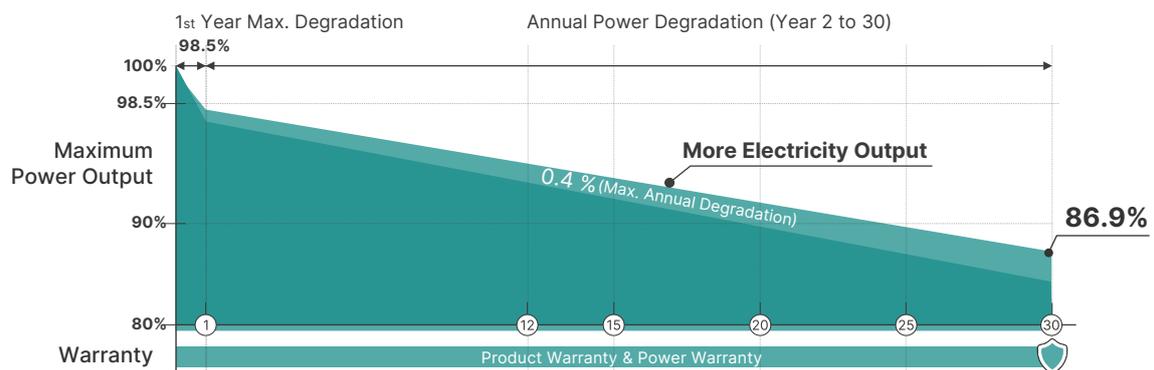


22.80%
Maximum Efficiency

0 ~ +5W
Positive Power Tolerance

30 Years
Product Warranty

30 Years
Power Warranty



Electrical Data(STC / NOCT)

Test Conditions	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Peak Power Watts- P_{MAX} (Wp)*	425	320	430	323	435	327	440	330	445	334
Power Tolerance- P_{MAX} (W)	0 ~ +5									
Maximum Power Voltage- V_{MPP} (V)	31.70	29.50	31.88	29.63	32.07	29.79	32.26	29.95	32.45	30.11
Maximum Power Current- I_{MPP} (A)	13.41	10.83	13.49	10.91	13.57	10.98	13.65	11.06	13.73	11.14
Open Circuit Voltage- V_{OC} (V)	38.30	36.38	38.49	36.56	38.68	36.74	38.87	36.92	39.06	37.10
Short Circuit Current- I_{SC} (A)	14.15	11.42	14.23	11.49	14.31	11.55	14.39	11.61	14.47	11.67
Module Efficiency η_m (%)	21.76	21.76	22.02	22.02	22.28	22.28	22.54	22.54	22.80	22.80

* STC: Air Mass AM1.5, Irradiance at 1000W/m², Cell Temperature 25°C / Measuring tolerance: ±3%.

* NOCT: Irradiance at 800W/m², Cell Temperature 20°C, Wind Speed 1m/s / Measuring tolerance: ±3%.

Electrical Characteristics With Different Rear Side Power Gain

10% Maximum Power- P_{MAX} (Wp)	467.5	473	478.5	484	489.5
10% Module Efficiency η_m (%)	23.94	24.22	24.51	24.80	25.09
20% Maximum Power- P_{MAX} (Wp)	510	516	522	528	534
20% Module Efficiency η_m (%)	26.11	26.42	26.74	27.06	27.38
30% Maximum Power- P_{MAX} (Wp)	552.5	559	565.5	572	578.5
30% Module Efficiency η_m (%)	28.29	28.63	28.96	29.29	29.62

* Power Bifaciality: 80±5%

Mechanical Data

Solar Cells	Monocrystalline
Cell Orientation	N-TOPCon 108cells (6 x 18)
Module Dimensions	1722mm x 1134mm x 30mm
Weight	25.00±0.5kg
Front Glass	2.0mm, Low Iron, AR Coated Heat Strengthened Glass
Encapsulant material	POE
Back Glass	2.0mm, Low Iron, AR Coated Heat Strengthened Glass
Frame	Galvanized Steel or Powder-coated Steel Frame
J-Box	IP 68 Rated(3 Bypass Diodes)
Cables	Photovoltaic Technology Cable 4.0mm ² Portrait: N 1000mm / P 1000mm 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}	-0.320% / °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.

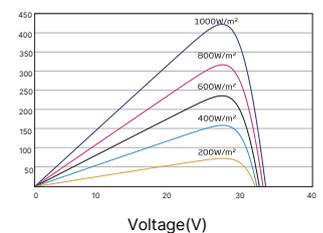
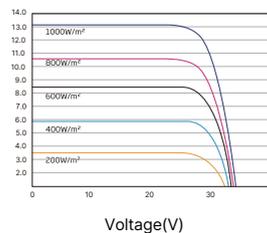
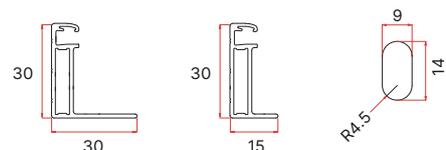
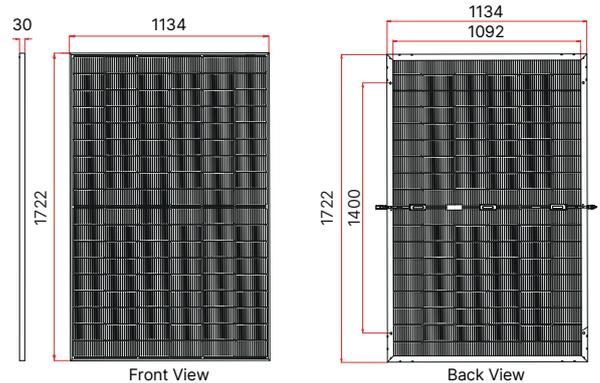
Application Environment

Operational Temperature	-40 ~ +85°C
Maximum System Voltage	1500V DC
Max Series Fuse Rating	(IEC)25A
Mechanical Performance	P 5400Pa / N 2400Pa

Packaging Configuration

Modules Per Pallet:	36 Pieces
Modules Per 40' Container:	936 Pieces

Dimensions of PV Module (mm)



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.