

# ALTRA N-TYPE TopCon Bifacial

## 420-440W Solar Module Dual-Glass Framed N108

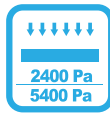
POSITIVE TOLERANCE 0~+6W  
HALF CELL MONO 108  
New Energy, Smart Living



### WHY MYSOLAR?


**MBB Solar Cells**

Mysolar panels have multi-busbars that can reduce current heat loss of the cells and increase the current collection ability.


**Strong and Safe**

Mysolar panels are certified to withstand 2400 Pa negative load of wind and 5400 Pa positive load of snow.


**1500V System Voltage**

Mysolar panels are of 1500V system voltage design compatible to 1500V and reduce BoS cost greatly.


**No LID & Better PID Resistant**

NZero B-O band on N-type cells results in Zero LID and a better PID resistance to the modules.


**Better Low Light Output**

Mysolar uses the best solar glass, cells, and assembling technology to guarantee good performance in cloudy days or low light conditions.


**Salt-resistant & Ammonia-Resistant**

Mysolar solar panels are salt mist and ammonia resistance certified.


**Positive Tolerance**

Mysolar guarantees that all solar modules manufactured by Mysolar have 0~6W positive tolerance.


**Confident Warranty**

Mysolar offers 25 years limited product warranty and 30 years performance warranty for Bifacial solar modules.


**Dual Side Power Producing**

Mysolar N-type bifacial panels have up to 85% bifaciality, generates up to 25.5% more energy yield than conventional panels.


**Higher Output**

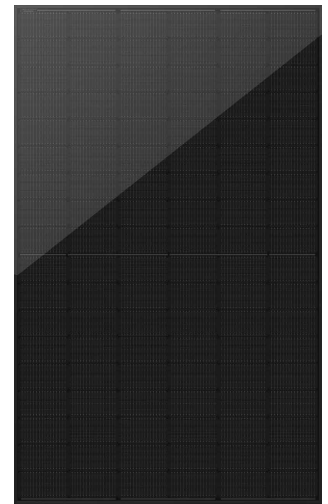
With multi-busbar cells, and 1500V system voltage, super solar glass, Mysolar panels have higher output than its competitors'.


**High Reliability**

Mysolar has complete testing facilities for tests of UV, TC, HF, EL, etc tests. 100% of Mysolar panels were tested & minimumly twice EL tests guaranteed.

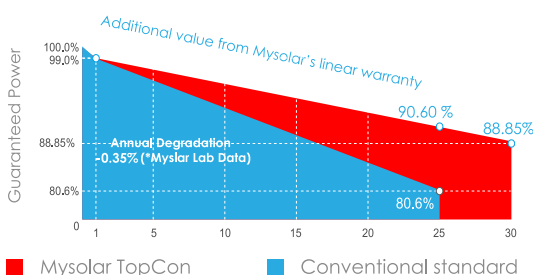

**More Options for Solar Projects**

More possible purposes like vertical installations, BIPV's, areas of high humidity, strong wind/snow, and deserts.



### LINEAR PERFORMANCE WARRANTY

25 Year Product Warranty · 30 Year Linear Power Warranty



- ISO9001:2015 Quality management systems
- ISO14001: 2015 Quality management systems
- ISO45001: 2018 Occupational health and safety management systems
- IEC61215, IEC61730, UL1703 certified product



# SPECIFICATIONS (STC\*)

Module Type	MS420N-DHBA	MS425N-DHBA	MS430N-DHBA	MS435N-DHBA	MS440N-DHBA
	STC	STC	STC	STC	STC
Maximum Power (Pmax)	420W	425W	430W	435W	440W
Maximum Power Voltage (Vmp)	31.51V	31.70V	31.89V	32.08V	32.27V
Maximum Power Current (Imp)	13.33A	13.41A	13.49A	13.57A	13.65A
Open-circuit Voltage (Voc)	38.11V	38.30V	38.49V	38.68V	38.87V
Short-circuit Current (Isc)	14.07A	14.15A	14.23A	14.31A	14.39A
Module Efficiency STC (%)	21.50%	21.80%	22.02%	22.28%	22.53%
Operating Temperature (°C)	-40°C~+85°C				
Maximum System Voltage	1500VDC (IEC)				
Maximum Series Fuse Rating	30A				
Power Tolerance	0~+6W				
Temperature Coefficients of Pmax	-0.290%/°C				
Temperature Coefficients of Voc	-0.250%/°C				
Temperature Coefficients of Isc	0.045%/°C				
Nominal Module Operating Temperature (NMOT)	42±2°C				

# REARSIDE POWER GAIN (BIFACIAL OUTPUT FOR MS440N-DHBA 440W)

Power Gain	5%	10%	15%	20%	25%	30%
Maximum Power (Pmax)	462Wp	484Wp	506Wp	528Wp	550Wp	572Wp
Maximum Power Voltage (Vmp)	32.27V	32.27V	32.27V	32.27V	32.40V	32.40V
Maximum Power Current (Imp)	14.33A	15.01A	15.70A	16.38A	17.06A	17.74A
Open-circuit Voltage (Voc)	38.87V	38.87V	38.87V	38.97V	38.97V	38.97V
Short-circuit Current (Isc)	14.48A	15.17A	15.86A	16.55A	17.24A	18.70A

**NMOT\*** (Nominal Module Operating Temperature):

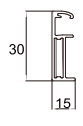
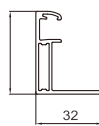
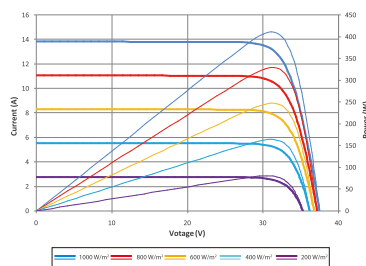
Irradiance 800W/sqm, Ambient Temperature 20 °C, AM 1.5, Wind Speed 1m/s

\*Power measurement tolerance: -/+3%

## Mechanical Characteristics

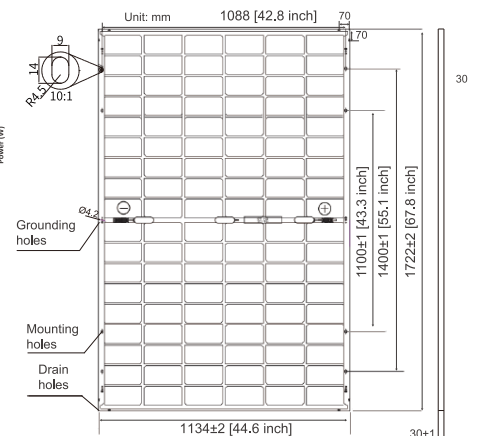
Cell Type	N-TYPE TopCon 182×91mm
No. of cells	108 (6×9+6×9)
Dimensions	1722±2 x 1134±2 x 30±1 mm
Weight	22.60KG ±2%
Glass	2.0mm Anti-Reflection Coating, High Transmission, Tempered Glass
Frame	Anodized aluminium alloy
Junction Box	IP68 Rated, 3 diodes
Cable & Connector	4mm <sup>2</sup> (IEC), 12 AWG(UL) 400mm(+)/200mm(-) or customized, MC4 compatible

Current-Voltage & Power-Voltage Curve (420W)



Long Side

Short Side



## Packaging Info

( Two pallets = One stack )

36pcs/pallet, 936pcs/40'HQ Container

Mysolar reserves the right to make necessary adjustment to the information described herein at any time without further notice due to continuous innovation and product improvement. Please be kindly noted installation of Mysolar solar modules shall be done by professional skilled people. Please read the installation manual carefully before using Mysolar solar panels.

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**Mamibot Manufacturing USA Inc.**

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