

EM-N54MB 415-440

**BIFACIAL MODULE WITH
DUALGLASS**
N-TYPE

0~+5W

POSITIVE POWER TOLERANCE

IEC61215(2021), IEC61730(2023)

ISO9001:2015: Quality Management System

ISO14001:2015: Environment Management System

ISO45001:2018: Occupational health and safety management systems

KEY FEATURES



SMBB technology

Better current collection to improve module power output and reliability.



Low attenuation technology

Lower LID / LETID attenuation with high reliable N-type module



Bifacial power generation

Power generation can reach up to 25% maximum, significantly improving power generation gain and reducing LCOE.



Excellent temperature coefficient

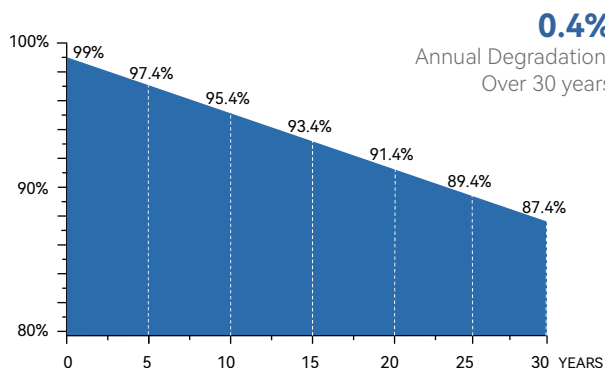
Ensure high power generation in low temperature areas.



Anti-PID technology

Excellent Anti-PID performance via highly reliable cell and material technology

LINEAR PERFORMANCE WARRANTY

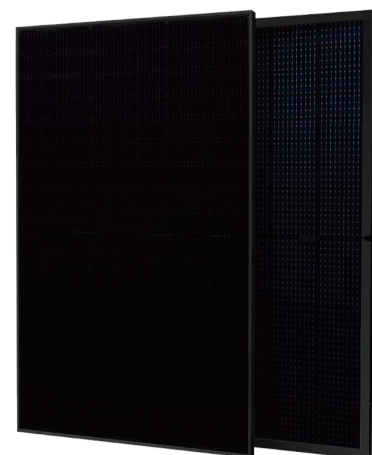


15
YEARS

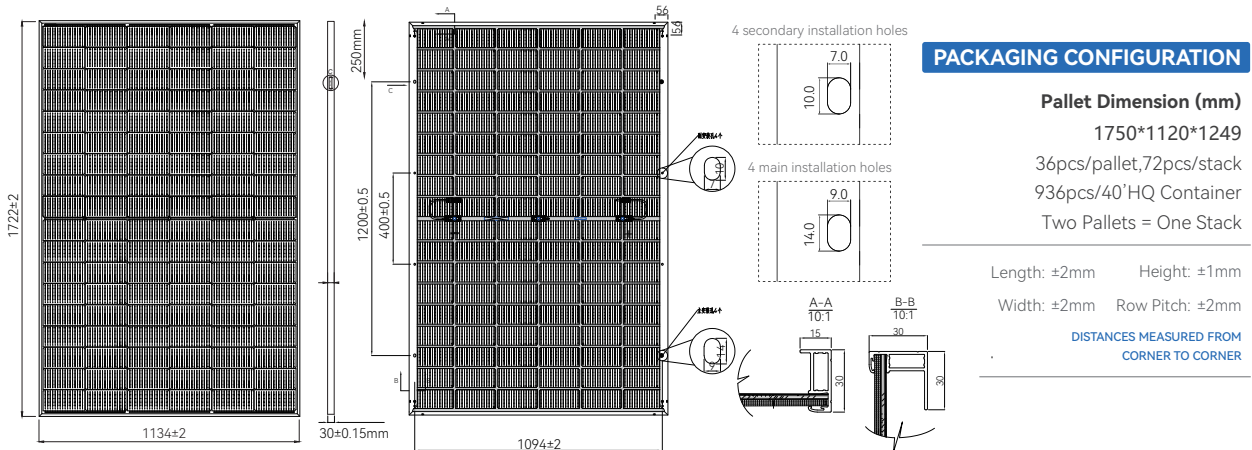
Year Product Warranty

30
YEARS

Year Linear Power Warranty



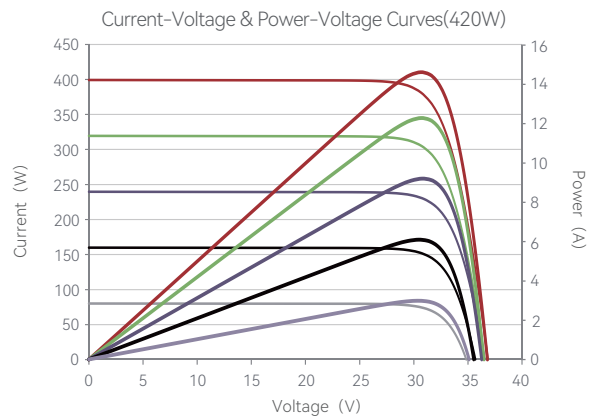
ASSEMBLY DRAWING



Mechanical Characteristics

Cell Type	N type Mono-crystalline
No. of cells	108 (6×18)
Dimensions	1722×1134×30mm
Weight	24.3kg
Front Glass	2.0mm, Anti-Reflection Coating
Back Glass	2.0mm, transparent back sheet
Frame	Anodized Aluminium Alloy
Junction Box	IP68 Rated
Output Cables	TÜV 1×4.0mm ² (+): 300mm, (-): 200mm or Customized Length

Electrical Performance & Temperature Dependence



MODULE TYPE	EM-N54MB415		EM-N54MB420		EM-N54MB425		EM-N54MB430		EM-N54MB435		EM-N54MB440	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	415Wp	315Wp	420Wp	319Wp	425Wp	324Wp	430Wp	328Wp	435Wp	333Wp	440Wp	337Wp
Maximum Power Voltage (Vmp)	31.9V	30.4V	32.1V	30.6V	32.3V	30.81V	32.5V	31.0V	32.7V	31.2V	32.9V	31.4V
Maximum Power Current (Imp)	13.02A	10.37A	13.09A	10.44A	13.16A	10.51A	13.24A	10.59A	13.32A	10.67A	13.38A	10.73A
Open-circuit Voltage (Voc)	38.5V	37.35V	38.7V	37.55V	38.9V	37.75V	39.1V	37.95V	39.3V	38.15V	39.5V	38.35V
Short-circuit Current (Isc)	13.71A	10.99A	13.81A	11.09A	13.91A	11.19A	14.01A	11.29A	14.11A	11.39A	14.21A	11.49A
Module Efficiency STC (%)	21.25%		21.51%		21.76%		22.02%		22.28%		22.53%	
Operating temperature(°C)	-40°C~+85°C											
Maximum system voltage	1500VDC (IEC)											
Maximum series fuse rating	25A											
Power tolerance	0~+5W											
Temperature coefficients of Pmax	-0.29%/°C											
Temperature coefficients of Voc	-0.25%/°C											
Temperature coefficients of Isc	0.046%/°C											
Nominal operating cell temperature (NOCT)	44°C±2°C											

STC : Irradiance : 1000W/m² Cell Temperature : 25°C AM=1.5

NOCT : Irradiance : 800W/m² Ambient Temperature : 20°C AM=1.5 Wind Speed 1m/s