

# N-type

## JF-M8-54GANT 420-440W

### BIFACIAL MODULE WITH DUAL GLASS

#### N-Type

Positive power tolerance of 0~+3%

IEC 61215(2016), IEC 61730(2016)

ISO9001:2015: Quality Management System

ISO14001:2015: Environment Management System

ISO45001:2018

Occupational health and safety management systems



## Key Features



#### SMBB Technology

Better light trapping and current collection to improve module power output and reliability.



#### PID Resistance

Excellent Anti-PID performance guarantee via optimized mass-production process and materials control.



#### Higher Power Output

Module power increases 5-25% generally, bringing significantly lower LCOE and higher IRR.



#### Hot 2.0 Technology

The N-type module with Hot 2.0 technology has better reliability and lower LID/LETID.

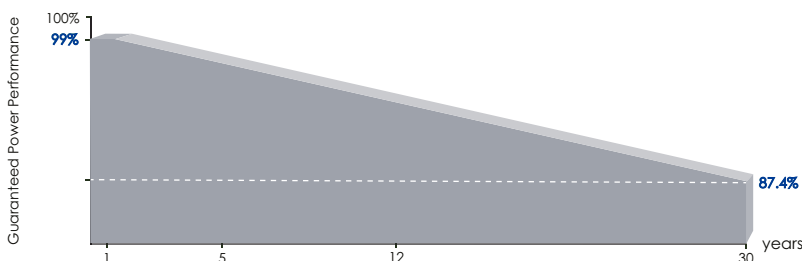


#### Enhanced Mechanical Load

Certified to withstand: wind load (2400 Pascal) and snow load (5400 Pascal).



## LINEAR PERFORMANCE WARRANTY

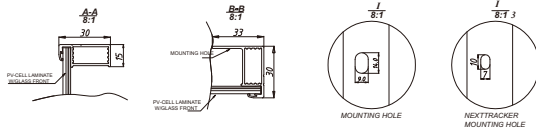
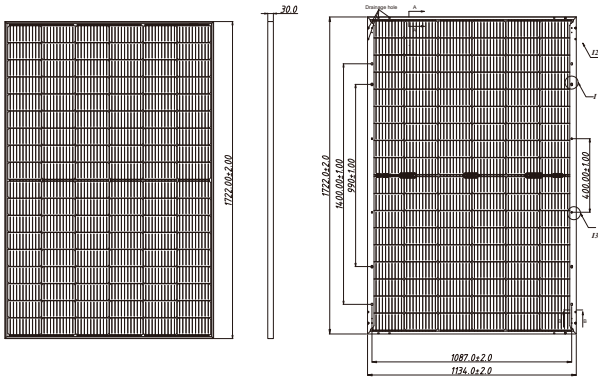


12 Year Product Warranty

30 Year Linear Power Warranty

0.40% Annual Degradation Over 30 years

## Engineering Drawings



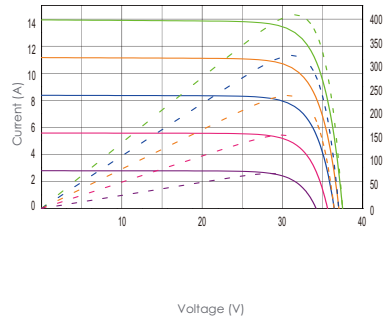
## Packaging Configuration

( Two pallets = One stack )

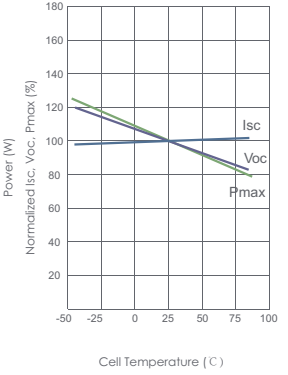
36pcs/pallets, 72pcs/stack, 936pcs/ 40'HQ Container

## Electrical Performance & Temperature Dependence

Current-Voltage & Power-Voltage Curves (410W)



Temperature Dependence of Isc, Voc, Pmax



## Mechanical Characteristics

Cell Type	N type Mono-crystalline
No. of cells	108 (6×18)
Dimensions	1722×1134×30mm (67.80×44.65×1.18 inch)
Weight	25.5 kg (56.22 lbs)
Front Glass	2.0mm, Anti-Reflection Coating
Back Glass	2.0mm, Heat Strengthened Glass
Frame	Anodized Aluminium Alloy
Junction Box	IP68 Rated
Output Cables	TUV 1×4.0mm (+): 400mm , (-): 200mm or Customized Length

## SPECIFICATIONS

Module Type	JF-M8-54GANT		JF-M8-54GANT		JF-M8-54GANT		JF-M8-54GANT		JF-M8-54GANT	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	420Wp	313Wp	425Wp	317Wp	430Wp	320Wp	435Wp	323Wp	440Wp	326Wp
Maximum Power Voltage (Vmp)	31.80V	29.73V	32.01V	29.86V	32.21V	29.99V	32.42V	30.12V	32.65V	30.25V
Maximum Power Current (Imp)	13.21A	10.54A	13.28A	10.60A	13.35A	10.66A	13.42A	10.72A	13.48A	10.78A
Open-circuit Voltage (Voc)	38.05V	35.70V	38.20V	35.90V	38.32V	36.10V	38.45V	36.30V	38.60V	36.50V
Short-circuit Current (Isc)	14.09A	11.36A	14.16A	11.42A	14.23A	11.48A	14.30A	11.54A	14.36A	11.60A
Module Efficiency STC (%)	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	30A									
Power tolerance	0~+3%									
Temperature coefficients of Pmax	-0.29%/°C									
Temperature coefficients of Voc	-0.25%/°C									
Temperature coefficients of Isc	0.045%/°C									
Nominal operating cell temperature (NOCT)	45±2°C									
Refer. Bifacial Factor	80±5%									

## BIFACIAL OUTPUT-REAR SIDE POWER GAIN

		441Wp		446Wp		452Wp		457Wp		462Wp	
		5%	15%	5%	15%	5%	15%	5%	15%	5%	15%
5%	Maximum Power (Pmax)	441Wp	446Wp	452Wp	457Wp	462Wp					
	Module Efficiency STC (%)	22.58%	22.85%	23.12%	23.39%	23.66%					
15%	Maximum Power (Pmax)	483Wp	489Wp	495Wp	500Wp	506Wp					
	Module Efficiency STC (%)	24.73%	25.03%	25.32%	25.62%	25.91%					
25%	Maximum Power (Pmax)	525Wp	531Wp	538Wp	544Wp	550Wp					
	Module Efficiency STC (%)	26.89%	27.21%	27.53%	27.85%	28.17%					

\*STC: Irradiance 1000W/m<sup>2</sup>

Cell Temperature 25°C

AM=1.5

NOCT: Irradiance 800W/m<sup>2</sup>

Ambient Temperature 20°C

AM=1.5

Wind Speed 1m/s