

# N-Type GSD7S54T [410-425W]

Bifacial single Glass Half-cut Mono Topcon



IEC 61215 / IEC 61730 / UL 61730

ISO9001: 2015: Quality Management System

ISO14001:2015: Environment Management System

ISO45001:2018: Occupational Health And Safety Management System



## KEY FEATURES



### SMBB Technology

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



### Better Attenuation

Components have better reliability and lower LID/LETID attenuation



### Double Power Output

For higher power output, backside power output can be increased 5-25%



### Full Black Design

More beautiful appearance, greatly improve the decorative effect



### PID Resistance

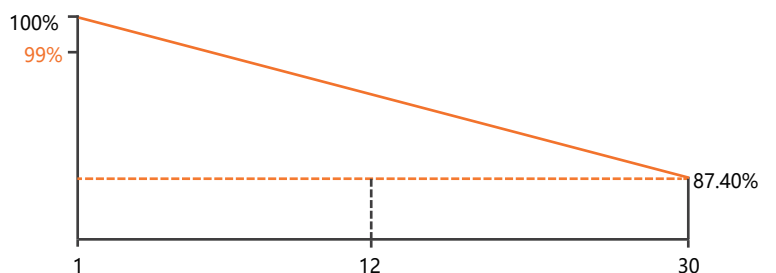
Excellent Anti-PID performance guarantee via optimized mass-production process and materials control

## Guaranteed Power Performance

**12** Years Product Warranty

**30** Years Linear Power Warranty

**0.40%** Annual Degradation Over 30 Years



As different markets have different certification requirements, please consult our G-Star sales group to obtain the corresponding certification for the local market. If any special requirements are needed for the specific installing environment, please feel free to contact G-star technical support department anytime.

# GSD7S54T 410-425W

Bifacial single Glass Half-cut Mono Topcon

## Weight

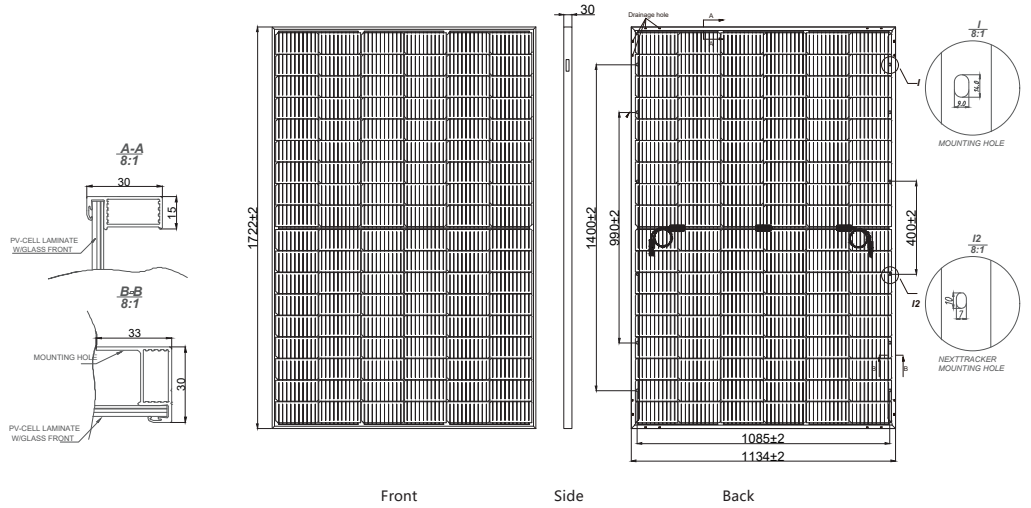
21.5 kg

## Dimensions

1722\*1134\*30mm

## Packaging

36pcs/pallet,936pcs/ 40'HQ Container  
828pcs/ 40'HQ Container(USA)



## OPERATING CONDITIONS

Operating Temperature	-40°C~+85°C
Maximum System Voltage	1500V/DC(IEC)
Maximum Series Fuse Rating	30A
Power Tolerance	0~+3%
Temperature Coefficients Of Pmax	-0.30%/°C
Temperature Coefficients Of Voc	-0.25%/°C
Temperature Coefficients Of Isc	0.046%/°C
Nominal Module Operating Temperature(NMOT)	45±2°C

\*Under STC :BACKside Output Ratio =Pmax(rear)/Pmax(front) 80%±5%

## MECHANICAL CHARACTERISTICS

Cell Type	N type Monocrystalline 182*91mm
No. Of Cells	108 pcs in series (6x18)
Front Glass	3.2mm Coated Tempered Glass
Backsheet	Transparent with black grid
Frame	Anodized Aluminium Alloy,Black
Junction Box	IP68 ,3Bypass Diodes
Output Cables	1200mm in length
Connectors	MC4
Mechanical Load	5400Pa(Front)/2400Pa(Back)

## ELECTRICAL PARAMETERS AT STC & NMOT

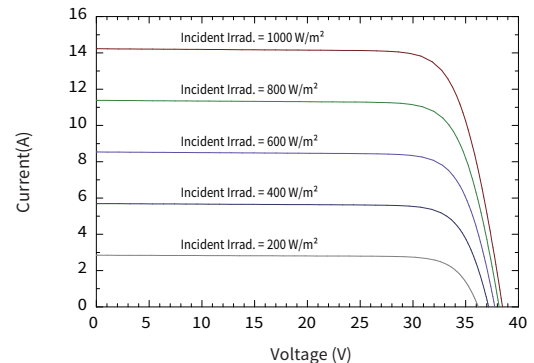
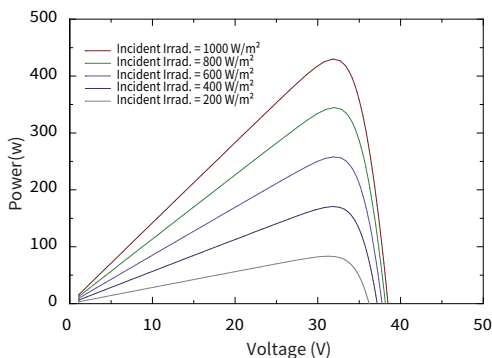
Module Type	GSD7S54T-410BT		GSD7S54T-415BT		GSD7S54T-420BT		GSD7S54T-425BT	
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power(Pmax)	410Wp	308Wp	415Wp	312Wp	420Wp	316Wp	425Wp	320Wp
Maximum Power Voltage (Vmp)	31.13V	29.06V	31.32V	29.21V	31.51V	29.34V	31.70V	29.50V
Maximum Power Current (Imp)	13.17A	10.61A	13.25A	10.68A	13.33A	10.76A	13.41A	10.83A
Open-Circuit Voltage (Voc)	37.73V	35.84V	37.92V	36.02V	38.11V	36.20V	38.30V	36.38V
Short-Circuit Current (Isc)	13.91A	11.23A	13.99A	11.29A	14.07A	11.36A	14.15A	11.42A
Module Efficiency STC (%)	21.00%		21.25%		21.51%		21.76%	

## BIFACIAL OUTPUT-REAR SIDE POWER GAIN

5%	15%	25%		
Maximum Power(Pmax)	413Wp	436Wp	441Wp	446Wp
Module Efficiency STC (%)	22.05%	22.31%	22.58%	22.85%
Maximum Power(Pmax)	472Wp	477Wp	483Wp	489Wp
Module Efficiency STC (%)	24.15%	24.44%	24.73%	25.03%
Maximum Power(Pmax)	513Wp	519Wp	525Wp	831Wp
Module Efficiency STC (%)	26.25%	26.57%	26.89%	27.21%

\*Bifacial Gain: The additional gain from the back side compared to the power of the front side at the standard test condition. It depends on mounting (structure, height, tit angle etc.) and albedo of the ground.

## IV-CURVE



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Website: [www.gstarsolar.com](http://www.gstarsolar.com)



\*STC: Irradiance 1000W/m²  
NMOT: Irradiance 800W/m²



Cell Temperature 25°C  
Ambient Temperature 20°C



AM=1.5  
AM=1.5



Wind Speed 1m/s  
Wind Speed 1m/s

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