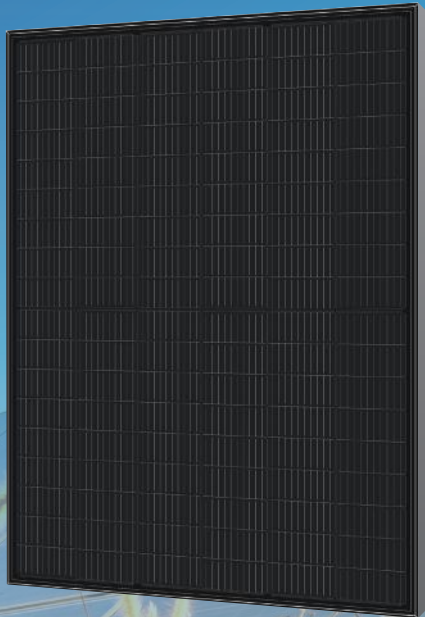


High Efficiency  
All-Black  
TOPCON Module

# GSM- MT4/108- TDGB430

410W | 415W | 420W  
425W | 430W



**430W**  
Maximum Power Output

**85%**  
Bifaciality

**21.99%**  
Maximum Efficiency

**30Years**  
Linear Power Warranty

## Product Features



### MBB Half Cell

Multi-busbar half cell design, together with many other technologies to increase module power and efficiency



### High Energy Yield

High density interconnection technology optimizes module efficiency up to 21.99%



### G10Cell/Module

G10 size cell and module, applicable to multiple scenarios



### High Reliability

Certified mechanical performance up to 5400 Pa positive load and 2400 Pa negative load, with better protection against harsh weather



### Higher Performance

Low temperature coefficient, low operating temperature, more energy yield



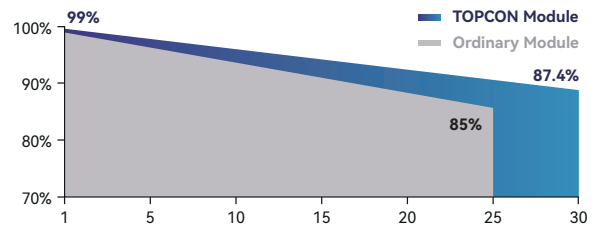
### Better Warranty

Low LID/PID in longer service life, less than 12.6% power degradation in 30 years

## Quality Assurance

**12** Years Product Warranty

**30** Years Linear Power Warranty



## Certificates



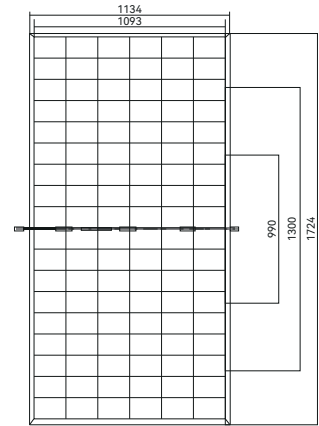
Guosheng Energy Co., Ltd.

Web: [www.grandsunergy.com](http://www.grandsunergy.com) E-mail: [sales@grandsunergy.com](mailto:sales@grandsunergy.com)

Add: West Side to Zhongjing 7th Road, South Side to Pengcheng Boulevard, Xuzhou Industrial Park, Xuzhou City, Jiangsu Province

## Mechanical Data

Cell(mm)	182×91
Weight(kg)	24.5±0.5kg
Dimension(L×W×H)(mm)	1724×1134×30mm
Cable(mm)	4mm <sup>2</sup> , 300mm(customized length based on needs)
Frame	anodized aluminum, black frame
Junction Box	IP68, 1500VDC, 3 Diodes
Packaging Configuration (40' Container; 17.5' Trailer)	36pcs. / pallet; 26pallet / container; 936pcs / container 36pcs. / pallet; 32pallet / Trailer; 1152pcs / Trailer



## Electrical Data (STC)

Model	GSM-MT4/108-TDGB410	GSM-MT4/108-TDGB415	GSM-MT4/108-TDGB420	GSM-MT4/108-TDGB425	GSM-MT4/108-TDGB430
Pmax(Wp)	410	415	420	425	430
Voc(V)	37.75	37.92	38.11	38.31	38.50
Isc(A)	13.92	13.99	14.09	14.16	14.24
Vmpp(V)	31.14	31.34	31.52	31.72	31.89
Impp(A)	13.18	13.25	13.35	13.42	13.49
Efficiency	20.97%	21.23%	21.48%	21.74%	21.99%

STC: AM1.5 Irradiance: 1000W/m<sup>2</sup> Temperature=25°C

## Electrical Characteristics (NOCT)

Model	GSM-MT4/108-TDGB410	GSM-MT4/108-TDGB415	GSM-MT4/108-TDGB420	GSM-MT4/108-TDGB425	GSM-MT4/108-TDGB430
Pmax(Wp)	302	306	310	314	318
Voc(V)	35.12	35.21	35.32	35.43	35.54
Isc(A)	11.15	11.23	11.36	11.46	11.56
Vmpp(V)	28.81	28.93	29.03	29.14	29.23
Impp(A)	10.49	10.58	10.70	10.79	10.88

$\alpha_{Isc} (\%/K) : 0.045; \beta_{Voc} (\%/K) : -0.25; \gamma_{Pmp} (\%/K) : -0.29$

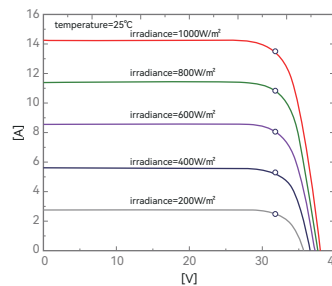
NOCT standard: AM1.5 Front irradiance: 800W/m<sup>2</sup> temperature=20°C wind speed=1m/s

## Working Condition

Maximum System Voltage	1500VDC
Operating Temperature	-40°C ~ +85°C
Maximum Fuse Rating	30A
Rear Side Mechanical Load	2400Pa
Front Side Mechanical Load	5400Pa
NOCT	44±2°C
Safety Class	Class II
Grounding Electric Conductivity	< 0.1Ω

## I-V Diagram

(Different Irradiance)



## I-V Diagram

(Different Temperature)

