

High Efficiency
Bifacial PERC Module

GSM- MP3/132- BMDG670

650W | 655W | 660W
665W | 670W



670W
Maximum Power Output

65+5%
Bifaciality

21.57%
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 21.57%



G12 Cell/Module

G12 big size wafer, low BOS cost, best for utility scale projects



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



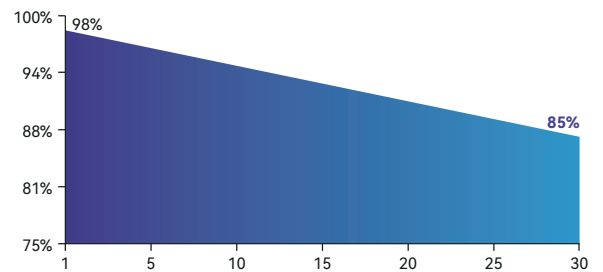
Better Warranty

Low LID/PID in longer service life, less than 15% power degradation in 30 years

Quality Assurance

12 Years Product Warranty

30 Years Linear Power Warranty



Certificates



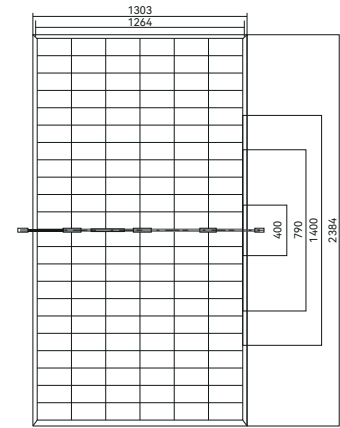
Guosheng Energy Co., Ltd.

Web: www.grandsunergy.com E-mail: 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)	210×105
Weight(kg)	38.5±0.5kg
Dimension(L×W×H)(mm)	2384×1303×33mm
Cable(mm)	4mm ² , 300mm(customized length based on needs)
Frame	anodized aluminum
Junction Box	IP68, 1500VDC, 3 Diodes, Connector Type:GT4 Changzhou Greateen New Energy Technology Co., Ltd.,
Packaging Configuration (40' Container; 17.5'Trailer)	33pcs./Pallet; 17pallet/container; 561pcs/container 33pcs./Pallet; 23pallet/trailer; 759pcs/trailer



Electrical Data (STC)

Binning tolerance: 0-+5W, Power production tolerance: ±3%, Voc tolerance: ±3%, Isc tolerance: ±3%

Model	GSM-MP3/132-BMDG650	GSM-MP3/132-BMDG655	GSM-MP3/132-BMDG660	GSM-MP3/132-BMDG665	GSM-MP3/132-BMDG670
Pmax(Wp)	650	655	660	665	670
Voc(V)	45.5	45.7	45.9	46.1	46.3
Isc(A)	18.35	18.40	18.45	18.50	18.55
Vmpp(V)	37.7	37.9	38.1	38.3	38.47
Impp(A)	17.27	17.31	17.35	17.39	17.42
Efficiency	20.92%	21.09%	21.25%	21.41%	21.57%

STC: AM1.5 Irradiance: 1000W/m² Temperature=25°C

Electrical Characteristics (NOCT)

Model	GSM-MP3/132-BMDG650	GSM-MP3/132-BMDG655	GSM-MP3/132-BMDG660	GSM-MP3/132-BMDG665	GSM-MP3/132-BMDG670
Pmax(Wp)	483	485	490	494	497
Voc(V)	41.31	41.51	41.71	41.91	42.07
Isc(A)	14.88	14.93	15.00	15.04	15.09
Vmpp(V)	35.42	35.53	35.72	35.92	36.10
Impp(A)	13.66	13.69	13.72	13.76	13.78
αIsc (%/K) : 0.05; βVoc (%/K) : -0.265; γPmp (%/K) : -0.34					

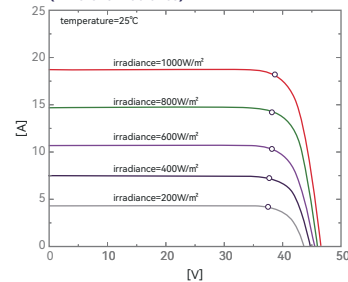
NMOT standard: AM1.5 Front irradiance: 800W/m² Temperature=20°C Wind speed=1m/s

Working Condition

Maximum System Voltage	1500VDC
Operating Temperature	-40°C ~ +85°C
Maximum Fuse Rating	35A
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)

