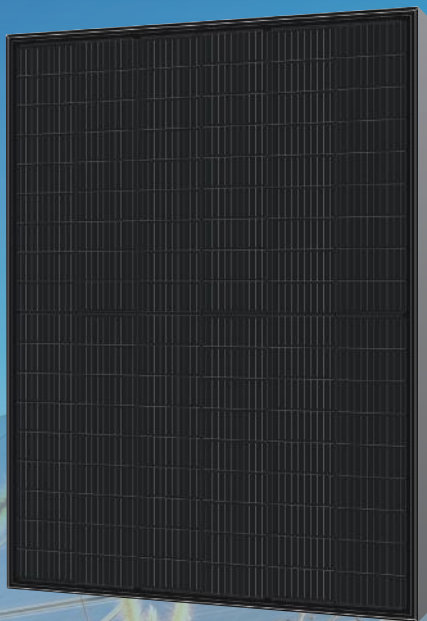


High Efficiency Bifacial
All-Black PERC Module

GSM- MP4/108- MDGB405

385W | 390W | 395W
400W | 405W



405W
Maximum Power Output

65±5%
Bifaciality

20.72%
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 20.72%



M10Cell/Module

M10 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



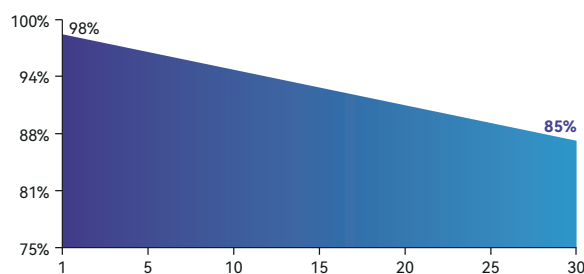
Better Warranty

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

Quality Assurance

12 Years Product Warranty

30 Years Linear Power Warranty



Certificates



Guosheng Energy Co., Ltd.

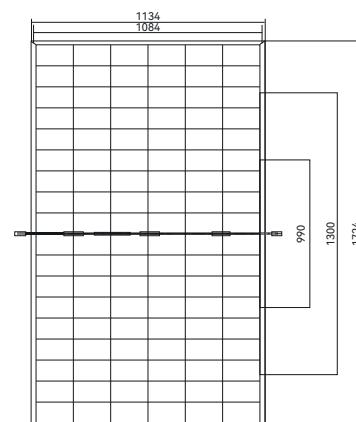
Web: www.grandsunergy.com E-mail: sales@grandsunergy.com

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



Mechanical Data

Cell(mm)	182×91
Weight(kg)	24.5±0.5kg
Dimension(L×W×H)(mm)	1724×1134×30mm
Cable(mm)	4mm ² , 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-MP4/108-MDGB385	GSM-MP4/108-MDGB390	GSM-MP4/108-MDGB395	GSM-MP4/108-MDGB400	GSM-MP4/108-MDGB405
Pmax(Wp)	385	390	395	400	405
Voc(V)	36.74	36.82	36.90	36.98	37.06
Isc(A)	13.57	13.64	13.71	13.78	13.85
Vmpp(V)	30.12	30.22	30.32	30.42	30.52
Impp(A)	12.79	12.91	13.03	13.15	13.27
Efficiency	19.69%	19.95%	20.20%	20.46%	20.72%

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

Electrical Characteristics (NOCT)

Model	GSM-MP4/108-MDGB385	GSM-MP4/108-MDGB390	GSM-MP4/108-MDGB395	GSM-MP4/108-MDGB400	GSM-MP4/108-MDGB405
Pmax(Wp)	284	288	291	295	299
Voc(V)	34.18	34.19	34.20	34.20	34.21
Isc(A)	10.87	10.95	11.05	11.15	11.24
Vmpp(V)	27.87	27.90	27.92	27.95	27.98
Impp(A)	10.18	10.31	10.44	10.57	10.70
$\alpha_{isc} (\%/K) : 0.05; \beta_{Voc} (\%/K) : -0.265; \gamma_{Pmp} (\%/K) : -0.34$					

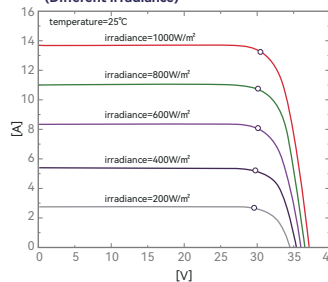
NOCT standard: AM1.5 Front irradiance: 800W/m² Temperature=20°C Wind speed=1m/s

Working Condition

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

