



GC-120M 182

445-465 Watt MONO PERC



Multi-bus solar cell
The special circuit design reduces the hot spot temperature greatly



Anti PID PID resistant
Excellent Pid tolerance at 96 hours (85 ° C/85%)



Crack resistance
Excellent micro-crack resistance, more uniform internal stress



The efficiency of the module is 21.47%
Semi-battery structure with low resistance characteristics has a higher lifetime power generation capacity



-0.24% C temperature coefficient
The power generation performance of the module is more stable, and the electrical performance is better under the high temperature environment



SMBB technology
Shorter current transfer distance, less resistance loss, higher battery efficiency



Maximum 90% two-sided rate
Natural double-sided symmetrical structure, the module back-side power generation gain is higher



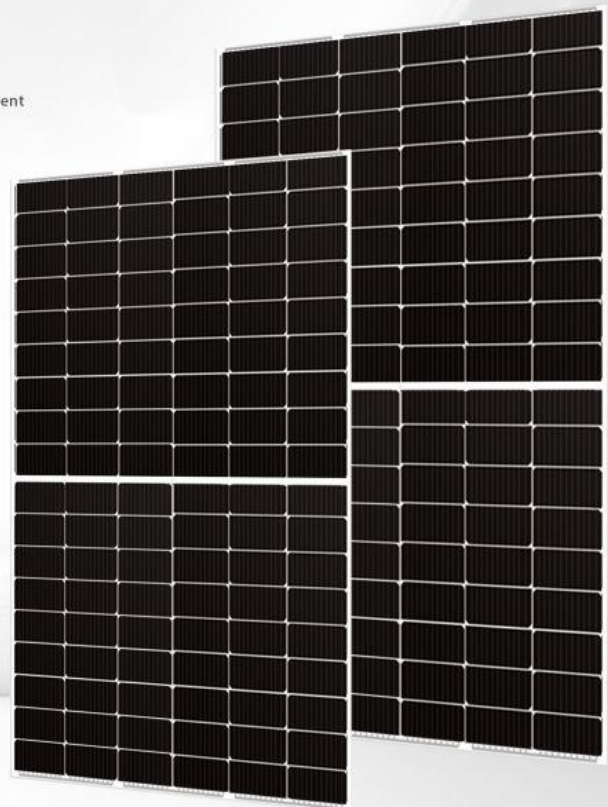
Butyl rubber seal
Stronger water resistance, better air tightness, longer service life of components



Higher reliability
Industry-leading process and power quality assurance to ensure long-term high-performance components



Applicable to centralized power stations
Effectively reduce system BOS cost, LCOE lower



认证证书

- EC61215、IEC61730、CE、CQC
- ISO8001:2015 Quality Management System
- 18014001:2015 Environmental Management System
- ISO45001:2018 Occupational Health and safety management





GC-120M 182

Goosun Energy Construction Group Co., Ltd.

Electrical specifications

Module type	GC-120M-445		GC-120M-450		GC-120M-455		GC-120M-460		GC-120M-465	
Test conditions	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum power(Pmax)	445	335	450	339	455	343	460	347	465	350
Open-circuit voltage(Voc)	42.12	39.83	42.31	40.09	42.49	40.35	42.68	40.62	42.86	40.88
Short Circuit Current(Isc/A)	13.65	10.91	13.72	10.95	13.79	10.99	13.86	11.03	13.93	11.07
Maximum power voltage(Vmpp)	34.87	32.56	35.07	32.82	35.27	33.08	35.47	33.33	35.67	33.59
Current maximum power	12.76	10.29	12.83	10.33	12.90	10.37	12.97	10.41	13.04	10.44
Module efficiency(%)	20.55%		20.78%		21.01%		21.24%		21.47%	
Power tolerance(W)	0~+5									

STC: light intensity 1000W/m, battery temperature 25°C, air quality 5.

Test conditions: irradiance 800W/m, ambient temperature 20°C, wind speed 1m/s.

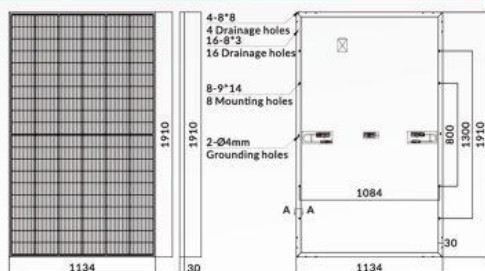
Mechanical specifications

Battery type	MONO
Number of cells	120(6*20)
Size	1910*1134*30mm
Weight	23.0kg
Glass	3.2 mm low toughened glass
Framework	Anodic aluminum oxide alloy
Junction Box	IP683 diodes
Output Cable	4mm ² length 300mm or custom made
The connector type	MC4 compatible

Packaging configuration

Per Pallet	36pcs
Per 40'HQ Container	936 pes

Engineering drawings



Temperature characteristics

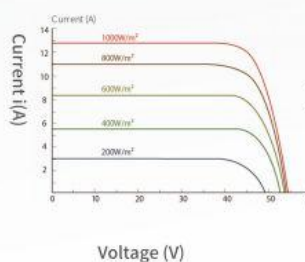
NOCT temperature	45°C±2°C
Temperature coefficient (PMAX)	-0.360%/°C
Temperature coefficient (VOC)	-0.280%/°C
Temperature coefficient (ISC)	0.050%/°C

Maximum rated parameters

Maximum system voltage (IEC)	1000/1500VDC
Snow/wind	5400Pa/2400Pa
Operating temperature	-40°C~+85°C
Maximum series fuse rating	25A

L-V curve

I-V CURVE(455W)



Current-Voltage curves (455W)

