



GC-144N 182

570-590 Watt

TOPCON HALF-CELL MONO Double Glass



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



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 22.83%
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



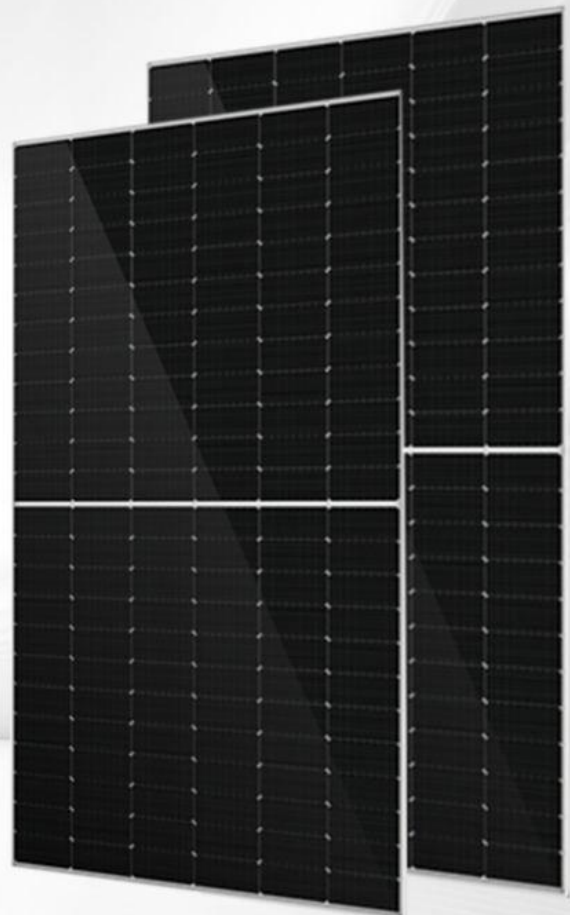
Butyl rubber seal
Stronger water resistance, better air tightness, longer service life of components



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
- 1S08001:2015 Quality Management System
- 18014001:2015 Environmental Management System
- 1S045001:2018 Occupational Health and safety management





GC-144N 182

Goosun Energy Construction Group Co., Ltd.

Electrical specifications

Module type	GC-144N-570HBD		GC-144N-575HBD		GC-144N-580HBD		GC-144N-585HBD		GC-144N-590HBD	
Test conditions	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum power(Pmax)	570	426	575	430	580	433	585	437	590	441
Open-circuit voltage(Voc)	51.91	48.74	52.06	48.88	52.21	49.02	52.36	49.16	52.51	49.30
Short Circuit Current(Isc/A)	14.07	11.36	14.14	11.42	14.20	11.47	14.27	11.52	14.33	11.57
Maximum power voltage(Vmpp)	43.76	39.93	43.91	40.07	44.06	40.20	44.21	40.34	44.36	40.47
Current maximum power	13.03	10.68	13.10	10.73	13.17	10.78	13.24	10.84	13.31	10.89
Module efficiency(%)	22.10%		22.30%		22.50%		22.60%		22.83%	
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.

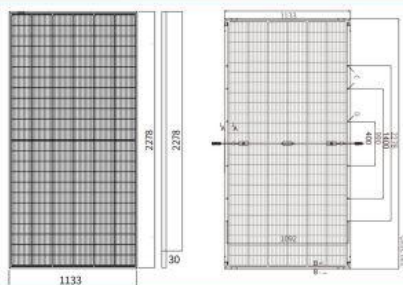
Mechanical specifications

Battery type	MONO
Number of cells	144 (6*24)
Size	2278*1133*35mm
Weight	31.8kg
Glass	2.0mm low iron tempered glass
Framework	Anodized aluminum alloy
Junction box	IP68 3 diodes
Output cable	4mm ² Length 300mm or customized
Connector type	MC4 compatible

Packaging configuration

Per Pallet	36pcs
Per 40'HQ Container	720pcs

Engineering drawings



Temperature characteristics

NOCT temperature	45°C±2°C
Temperature coefficient (P _{MAX})	-0.290%/°C
Temperature coefficient (V _{OC})	-0.230%/°C
Temperature coefficient (I _{SC})	0.050%/°C

Maximum rated parameters

Maximum system voltage (IEC)	1500VDC(IEC)
Snow/wind	5400Pa/2400Pa
Operating temperature	-40°C~+85°C
Maximum series fuse rating	30A

L-V curve

L-VCURVE(580W)

Current-Voltage curves (580w)

